

Madrid, 15 de octubre de 2025

ATT. A quien corresponda,

Asunto. *Certificaciones europeas mortero de cemento empleado en la fabricación de la tubería de fundición dúctil Welspun Flow y elementos relacionados.*

Estimados señores, con relación a la certificaciones y normativas europeas relacionadas con la potabilidad / alimentabilidad del mortero de cemento empleado en la fabricación de la tubería de Welspun Europe, marca comercial Welspun Flow, nos gustaría exponer lo siguiente:

- 1. Certificaciones Europeas Mortero de cemento.**
- 2. Ensayos según normativa europea EN 197-1.**
- 3. Directiva UE 2020/2184, RD3/2023 y disposiciones europeas (UE) 2024/367 y (UE) 2024/368.**
 - a. Consideramos, que actualmente este es el punto más importante.**
- 4. Otros componentes de la tubería.**
- 5. Documentación que aportar con el envío de la tubería, en caso de que lo precisen.**
- 6. Agua empleada en la aplicación del mortero de cemento en fábrica, según (UE) 2020/2184.**
- 7. Declaración responsable de cumplimiento del RD3/2023, según página web del ministerio.**

1. Certificaciones Europeas Mortero de Cemento.

La mayoría de las administraciones / servicios de agua de España, admiten una de las tres empleadas en Europa.

- WRAS (UK), ACS CARSO (Francia) y HYG (TKW) – DVGW (Alemania).
- No hay que olvidar, que también existen países como Italia (DM 174) y Reino Unido, que realiza los ensayos en el laboratorio NSF, acreditado por la UKAS bajo la norma BS6920:2014 part 1, clause 8.

Estas certificaciones no analizan completamente los componentes requeridos según **RD3/2023**, que es una transposición de la **directiva UE 2020/2184**.

El mortero que empleamos en la fabricación de la tubería es lo que se debe analizar, siendo el nombre comercial que adoptamos para nuestro producto **Welmortar-BFSC**.

Este mismo mortero de cemento, lo emplean otros fabricantes de tubería de fundición que es instalada en Europa. Este mismo mortero posee las certificaciones WRAS, ACS e HYG con el propio nombre del fabricante y otros suministradores.

Indicamos los certificados europeos que poseemos, bajo el nombre Welmortar-BFSC, siendo el mortero de cemento empleado del fabricante Birla (VER ANEXO I).

- WRAS. Ok
- ACS. En proceso.
- HYG (TKV). En proceso.
- Istituto Giordano (DM 174 – Italia). Ok
- NSF (UK bajo norma BS6920: part 1:2014, clause 8). Ok

2. Ensayos según normativa europea EN 197-1.

La tubería de fundición se trata de un producto acabado. Es la propia norma EN 545 quien otorga el certificado de conformidad al conjunto del producto, teniendo en cuenta la totalidad de componentes que componen la propia tubería.

No obstante, siempre es aconsejable, tener ensayos realizados con la norma europea de mortero de cemento EN 197-1 (Cemento. Parte 1: Composición, especificaciones y criterios de conformidad de los cementos comunes).

El mortero de cemento empleado, según la norma EN 197-1, tiene la siguiente denominación según dicha norma, CEM III/A, 52.5N.

- Aportamos certificado de BV relativo al mortero empleado fabricante Birla, marca comercial Welmortar – BFSC (VER ANEXO II).

3. Directiva UE 2020/2184, RD3/2023 y disposiciones europeas (UE) 2024/367 y (UE) 2024/368.

Detallamos brevemente en qué consisten, y haremos posteriormente hincapié en los ensayos que tenemos completos bajo estas normativas.

El **RD3/2023** establece los criterios técnicos-sanitarios de la calidad de agua de consumo, su control y suministro.

Este real decreto es la trasposición a la reglamentación nacional de la **Directiva (UE) 2020/2184** del Parlamento Europeo y del Consejo, de 16 de diciembre de 2020, relativa a la calidad de las aguas destinadas al consumo humano.

Las disposiciones europeas, que completan la directiva **(UE) 2020/2184** y el **RD3/2023**, son las siguientes:

Decisión de Ejecución (UE) 2024/367, por la que se establecen disposiciones de aplicación de la Directiva (UE) 2020/2184 mediante el establecimiento de listas positivas europeas de sustancias de partida, composiciones y componentes autorizados para su utilización en la fabricación de materiales o productos que entran en contacto con las aguas destinadas al consumo humano

Decisión de Ejecución (UE) 2024/368, por la que se establecen disposiciones de aplicación de la Directiva (UE) 2020/2184 en lo que respecta a los procedimientos y métodos de ensayo y a la aceptación de los materiales finales utilizados en productos que entran en contacto con aguas destinadas al consumo humano.

Consideramos, como fabricante, que este es el documento más importante que aportamos. Hasta donde nosotros conocemos, somos el único fabricante que está aportando esta documentación completa, en laboratorio acreditado para la realización de dichos ensayos, que son bastante novedosos.

- Ensayos y certificación realizados por EPAL (Lisboa), que indica los valores de los ensayos de migración y los relaciona con las listas positivas europeas (echa.europa.eu). VER ANEXO III
- Indico tabla con los valores de migración, según ensayos realizados.

Componente	Valor obtenido	Máximo según (UE) 2020/2187, RD3/2023 y (UE) 2024/367.
Aluminio	15 µg/L	30 µg/L.
Bario	6.7 µg/L	50 µg/L.
Litio	3.1 µg/L	30 µg/L.
Nickel	1.6 µg/L	2.0 µg/L.

La totalidad de los ensayos, se pueden comprobar en el ANEXO III mencionado.

Por tanto, Welspun Europe, S.A., declara que la tubería de fundición a suministrar, marca comercial Welspun Flow, cumple con los requisitos recogidos en la directiva europea (UE) 2020/2184 y el artículo 44 del RD3/2023.

4. **Otros componentes de la tubería.**

Pese a ser un producto acabado, como indicamos anteriormente, y estar certificada por BV y BSI, según indica la norma EN 545, aportamos documentación adicional de los componentes que componen la misma.

- Juntas EPDM a utilizar en la instalación.
 - o Holdwell. WRAS, ACS.
- Epoxi – Bitumen.
 - o PC Chanda. WRAS, ACS
 - o Berger Paint. WRAS
 - o Shalimar. WRAS
- Lubricante.
 - o TG & sons. WRAS, ACS

VER ANEXO IV

5. **Documentación que aportar con el envío de la tubería, en caso de que lo precisen.**

Se aporta ejemplo de documentación con el envío de la tubería, denominada WTC (Work Test Certificate).

VER ANEXO V

6. **Agua empleada en la aplicación del mortero de cemento en fábrica, según (UE) 2020/2184.**

Según la (UE) 2020/2184 el agua empleada en la aplicación del mortero debe ser suministrada desde planta potabilizadora.

VER ANEXO VI

7. **Declaración responsable de cumplimiento del RD3/2023, según página web del ministerio.**

Ver carta tipo que indican en la página del ministerio.

VER ANEXO VII

Welspun^W EUROPE

Por favor, si tienen cualquier duda, o necesitan alguna aclaración, estamos a su entera disposición.

Gracias de antemano,

Un cordial saludo,

JORGE RAÚL BARTOLOME
Director Comercial - Welspun Europe S.A.
M: +34 667 478 506 / D: +91 726 51 69

Welspun^W CORP

Juan Esplandiú 11, 3ª Planta, 28007, Madrid.
www.welspun.com

Follow us on:



ANEXO I

Approval Number 2310550
Test Report: J-00465869



Water Regulations Approval Scheme Ltd.
Unit 13,
Willow Road,
Pen y Fan Industrial Estate,
Crumlin,
Gwent,
NP11 4EG

11th March 2024

Welspun DI Pipes Limited
Survey No. 615-619, 632-634 & 650, Welspun City,
Versamedi Village,
Taluka Anjar,
Kutch Anjar,
Kachchh,
Gujarat,
370110,
India

WATER REGULATIONS APPROVAL SCHEME LTD. (WRAS)
MATERIAL APPROVAL

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6920-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

COATINGS, PAINTS & LININGS- FACTORY APPLIED PIPE & FITTINGS COATINGS.

5030

'Welmortar-BFS'. Factory applied, grey coloured cement mortar.

Mix sand:cement:water in a 3:2:1 weight ratio and apply as per manufacturer's SOP document 'WDIPL/QA/WI/14B', revision '01', dated '08.02.2023'. Cure for 28 days@30°C.

For use with water up to 65°C.

This material is only approved for the mixing and curing conditions that appear on the approval. If the mixing and/or curing conditions are varied from those specified on the approval then the material is not covered by the scope of the approval.

APPROVAL NUMBER: 2310550
APPROVAL HOLDER: WELSPUN DI PIPES LIMITED

The Scheme reserves the right to review approval.
Approval 2310550 is valid between October 2023 and October 2028

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, "Materials which have passed full tests of effect on water quality".

The Directory may be found at: www.wrasapprovals.co.uk/approvals-directory/

Yours Faithfully

Ian Hughes
WRAS Approvals Manager

WRAS MATERIAL APPROVAL - MATERIALS WHICH HAVE PASSED FULL TESTS OF EFFECT ON WATER QUALITY

The material referred to in this letter is suitable for contact with water for domestic purposes. **Approval of this material does not signify the approval of its mechanical or physical properties for any use.**

Manufacturers or applicants may only quote in their sales literature terms which are used in this letter, namely that; 'the material as listed, having passed the tests of effect on water quality, is suitable for use in contact with wholesome water'

This may be abbreviated to 'Water Regulations Approval Scheme - Approved Material' or 'WRAS Approved Material'.

The scope of an Approval does not extend to rebranded materials unless otherwise agreed by the Scheme.

Use of the WRAS Approved Material Logo

Approval holders may use the WRAS Approved Material logo and make reference to any approval issued by WRAS Ltd. in respect of a particular material or range of materials provided the approval is, and remains valid.

Approval holders are entitled to use the logo on the packing, promotional literature and point of sale advertising Approved Materials.

Modifications to existing Approvals

It is a condition of WRAS Material Approval that NO changes or modifications to the Approved Material, be made without the Approval Holder first notifying WRAS Ltd. Full details of the proposed changes must be provided to the Scheme. Failure to comply with this condition will immediately invalidate a previously granted Approval.

Re-Approval

Please note it is the responsibility of the Approval Holder to ensure the Approval remains valid. WRAS Ltd. accepts no liability for the delay in granting approval where this is caused by circumstances outside of the Scheme's control.

Raul Bartolome

De: Sudarsan Mohapatra
Enviado el: miércoles, 15 de octubre de 2025 11:52
Para: Lucks, Janel; PachecoMoreno Patricia
CC: Abhijit Ghosh; Prabhumoy Datta; KTW_LAB; Raul Bartolome; Alberto Nuca
Asunto: Re: Request for proposal II Testing of product suitability of use in contact with water intended for human consumption II Welspun DI Pipes Limited II

Dear Ms. Lucks,
Kindly submit the invoice to proceed for the payment.

*Best Regards,
Sudarsan Mohapatra*



From: Lucks, Janel <j.lucks@hyg.de>
Sent: Sunday, October 5, 2025 8:49 AM
To: Sudarsan Mohapatra <Sudarsan_Mohapatra@welspun.com>; PachecoMoreno Patricia <P.PachecoMoreno@hyg.de>
Cc: Abhijit Ghosh <Abhijit_Ghosh@welspun.com>; Prabhumoy Datta <Prabhumoy_Datta@welspun.com>; KTW_LAB <ktw_lab@hyg.de>; Raul Bartolome <jraul_bartolome@welspun.com>; Alberto Nuca <Alberto_Nuca@welspun.com>
Subject: AW: Request for proposal II Testing of product suitability of use in contact with water intended for human consumption II Welspun DI Pipes Limited II

Note: This email is received from an external sender outside of Welspun group domain network. Be thoughtful about opening any attachment or replying / forwarding it further. This message is displayed as per best practices of cyber security.

Dear Mr Mohapatra,

I will provide you with the invoice on Monday 13th, I will be out of office until then, just checking my mails quickly and create an out-of-office note.

Thank you for your patience, and have a nice week.

Best regards

Janel Alina Lucks

.....
Janel Alina Lucks
Secretary's office for water
hygienic material testing (KTW)
.....

Hygiene-Institut des Ruhrgebiets
Institut für Umwelthygiene und Toxikologie
Rotthaus Str. 21
45879 Gelsenkirchen (Germany)
.....

VAT ID: DE125018356
.....

Phone: +49 (0) 209/9242- 184
Mobile: +49 (0) 176 30292435

Fax: +49 (0) 209/9242- 212
Mail: j.lucks@hyg.de
Web: www.hyg.de

.....
Legal Entity: Verein des Hygiene-Instituts des Ruhrgebiets e.V., Gelsenkirchen (Germany); Directorate: Prof. Dr. Jürgen Kretschmann (Chairman), City Councillor Andrea Henze, Joachim Löchte, Dr. Frank Obenaus, Dr. Dirk Waider, Dr. Thomas-Benjamin Seiler (Managing Director); **Register No.:** VR 519 Local Court Gelsenkirchen.

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Von: Sudarsan Mohapatra <Sudarsan_Mohapatra@welspun.com>

Gesendet: Freitag, 3. Oktober 2025 04:42

An: Lucks, Janel <j.lucks@hyg.de>; PachecoMoreno Patricia <P.PachecoMoreno@hyg.de>

Cc: Abhijit Ghosh <Abhijit_Ghosh@welspun.com>; Prabhumoy Datta <Prabhumoy_Datta@welspun.com>; KTW_LAB <ktw_lab@hyg.de>; Raul Bartolome <jraul_bartolome@welspun.com>; Alberto Nuca <Alberto_Nuca@welspun.com>

Betreff: Re: Request for proposal II Testing of product suitability of use in contact with water intended for human consumption II Welspun DI Pipes Limited II

Dear Ms. Lucks,

Thanks for sharing signed documents. Kindly share the invoice in reference to offer nos. KA-400968-25-A.

Regards,
Sudarsan Mohapatra

Get [Outlook for iOS](#)

From: Lucks, Janel <j.lucks@hyg.de>

Sent: Tuesday, September 23, 2025 2:38:08 PM

To: Sudarsan Mohapatra <Sudarsan_Mohapatra@welspun.com>; PachecoMoreno Patricia <P.PachecoMoreno@hyg.de>

Cc: Abhijit Ghosh <Abhijit_Ghosh@welspun.com>; Prabhumoy Datta <Prabhumoy_Datta@welspun.com>; KTW_LAB <ktw_lab@hyg.de>; Raul Bartolome <jraul_bartolome@welspun.com>; Alberto Nuca <Alberto_Nuca@welspun.com>

Subject: AW: Request for proposal II Testing of product suitability of use in contact with water intended for human consumption II Welspun DI Pipes Limited II

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Dear Mr Mohapatra,

could you kindly check the attached forms? They were sent back to me today.

Best regards

Janel Alina Lucks

.....
Janel Alina Lucks
Secretary's office for water
hygienic material testing (KTW)

.....
Hygiene-Institut des Ruhrgebiets
Institut für Umwelthygiene und Toxikologie
Rotthauer Str. 21
45879 Gelsenkirchen (Germany)

.....
VAT ID: DE125018356

.....
Phone: +49 (0) 209/9242- 184
Mobile: +49 (0) 176 30292435

Raul Bartolome

De: AUTUGELLE Christelle <CAUTUGELLE@groupecarso.com>
Enviado el: viernes, 4 de julio de 2025 9:08
Para: Raul Bartolome
CC: Jesus Luis Yu
Asunto: RE: WELPSUN CORP DI PIPES. SULPHATE RESISTAN CEMENT (WELMORTAR-SRC)

Note: This email is received from an external sender outside of Welspun group domain network. Be thoughtful about opening any attachment or replying / forwarding it further. This message is displayed as per best practices of cyber security.

Hello,

Thank you, we can start our assessment.

Cordiales salutations / Best regards

Note : Toute demande de renouvellement d'ACS doit intervenir au moins 6 mois avant son échéance (1 an pour résines échangeuses d'ions, les réacteurs UV et membranes). Tout dossier déposé après ce délai réglementaire ne pourra pas être considéré comme prioritaire.

Note : Applications to renew an ACS must be submitted at least 6 months before it expires (1 year for ion exchange resins, UV and membranes). Any application submitted after this regulatory deadline will not be considered a priority.



Christelle AUTUGELLE

Directrice Département MCDE / Director of MCDE Department

cautugelle@groupecarso.com

4 avenue Jean Moulin – CS 30228 - 69633 Vénissieux - France

<http://www.groupecarso.com>



De : Raul Bartolome <jraul_bartolome@welspun.com>

Envoyé : jeudi 3 juillet 2025 18:31

À : AUTUGELLE Christelle <CAUTUGELLE@groupecarso.com>

Cc : Jesus Luis Yu <jesusluis_yu@welspun.com>

Objet : RE: WELPSUN CORP DI PIPES. SULPHATE RESISTAN CEMENT (WELMORTAR-SRC)

Dear Christelle,

Let's hope everything goes well.

We will summarise in this email what has been sent and what is pending according to your last email.

- MSDS
- Sand Test Report WELSPUN.
- Recipe complete as your email.
- Water Analysis (EU 2020).

Regarding outstanding questions:

1. The sand:cement:water ratio is 3:2:1
2. Refers standard EN 197-1, please see attached document.

Please contact us if you have any questions or require further clarification.

RAPPORTO DI PROVA N. 430380

Cliente

WELSPUN EUROPE SA

Via San Bovio, 3 - 20024 SEGRATE (MI) - Italia

Oggetto#

**campione tubo "EN545 DN150 WelspunFlow"
rivestimento esterno ZNAL + epoxy blu,
interno malta di cemento BFSC
+ guarnizione "DN150 TYTON EPDM EN681-1"**

Attività

 **verifica di parametri relativi alla qualità delle acque
destinate al consumo umano e determinazione
della migrazione globale e della migrazione del colore
secondo il D.M. 6 aprile 2004 n. 174**

Risultati

Conforme

(#) secondo le dichiarazioni del cliente.

Bellaria-Igea Marina - Italia, 30 giugno 2025

L'Amministratore Delegato

Commessa:
105965

Provenienza dell'oggetto:
campionato e fornito dal cliente

Identificazione dell'oggetto in accettazione:
2025/1340 del 14 maggio 2025

Data dell'attività:
dal 15 maggio 2025 al 27 giugno 2025

Luogo dell'attività:
Istituto Giordano S.p.A. - Blocco 4 - Via San Mauro, 8 - 47814 Bellaria-Igea Marina (RN) - Italia
laboratorio esterno qualificato da Istituto Giordano

Indice	Pagina
Descrizione dell'oggetto*	2
Riferimenti normativi	2
Modalità	3
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Il presente documento è composto da n. 5 pagine e non può essere riprodotto parzialmente, estrapolando parti di interesse a discrezione del cliente, con il rischio di favorire una interpretazione non corretta dei risultati, fatto salvo quanto definito a livello contrattuale.

I risultati si riferiscono solo all'oggetto in esame, così come ricevuto, e sono validi solo nelle condizioni in cui l'attività è stata effettuata.

L'originale del presente documento è costituito da un documento informatico firmato digitalmente ai sensi della Legislazione Italiana applicabile.

Responsabile Tecnico di Prova:
Per Ind. Armando Ciccione

Responsabile del Laboratorio di Chimica:
Dott. Alessandro Lorenzi

Compilatore: Francesca Manduchi

Pagina 1 di 5

Descrizione dell'oggetto#

L'oggetto in esame è costituito da n. 1 spezzone di tubazione, lunghezza 1,0 m circa, rivestita di malta cementizia all'interno e vernice blu all'esterno, con anello di giunzione rivestito internamente di resina epossidica e di una guarnizione in EPDM.



Fotografie dell'oggetto in esame

Riferimenti normativi

Norma	Titolo
UNI EN 545:2010	Tubi, raccordi e accessori di ghisa sferoidale e loro assemblaggi per condotte d'acqua - Requisiti e metodi di prova
D. Lgs. 23 febbraio 2023, n. 18 Allegato 1	Requisiti minimi relativi ai valori di parametro utilizzati per valutare la qualità delle acque destinate al consumo umano
D.M. 6 aprile 2004 n. 174 del Ministero della Salute	Regolamento concernente i materiali e gli oggetti che possono essere utilizzati negli impianti fissi di captazione, trattamento, adduzione e distribuzione delle acque destinate al consumo umano

(#) secondo le dichiarazioni del cliente. Istituto Giordano declina ogni responsabilità sulle informazioni e sui dati forniti dal cliente che possono influenzare i risultati.

Modalità

L'interno in malta cementizia è stato sottoposto a verifica di parametri relativi alla qualità delle acque destinate al consumo umano, adottando le condizioni riportate nella tabella seguente:

Liquido simulante	Acqua di rete
Tempo di prova	72 h
Temperatura di prova	23 °C

L'interno dell'anello di giunzione in resina epossidica e la guarnizione in EPDM sono stati sottoposti a:

- determinazione della migrazione globale;
- determinazione della migrazione del colore mediante misure di trasmittanza tra 400 nm e 750 nm;

La prova è stata eseguita adottando le condizioni riportate nella tabella seguente:

Liquido simulante	Acqua distillata o equivalente
Tempo di prova	24 h
Temperatura di prova	40 °C

Risultati

Verifica di parametri relativi alla qualità delle acque destinate al consumo umano su interno in malta cementizia

Parametri chimici (Parte B)						
Parametro	Unità di misura	Acqua di cessione BFSC	Acqua di rete	LOQ	Limite [#]	Metodo
Antimonio	µg/l	0,100	< 0,1	0,1	10	EPA 6020B 2014
Arsenico	µg/l	1,00	0,100	0,1	10	EPA 6020B 2014
Boro	mg/l	0,061	0,028	0,005	1,5	EPA 6020B 2014
Cadmio	µg/l	< 0,1	< 0,1	0,1	5,0	EPA 6020B 2014
Clorati (ione clorato)	µg/l	103	200	100	700	EPA 300.1 1997 part B + EC 1999
Clorito (ione clorito)	µg/l	180	223	100	700	EPA 300.1 1997 part B + EC 1999
Cromo	µg/l	12,5	0,100	0,1	50	EPA 6020B 2014
Rame	mg/l	0,00130	0,0091	0,0001	2,0	EPA 6020B 2014
Cianuro (ione cianuro)	µg/l	< 5	< 5	5	50	EPA 9010C 2004 + EPA 9014 2014
Fluoruro (ione fluoruro)	mg/l	< 0,1	< 0,1	0,1	1,50	UNI EN ISO 10304-1:2009
Piombo	µg/l	< 0,1	0,100	0,1	10	EPA 6020B 2014
Mercurio	µg/l	0,100	0,100	0,1	1,0	EPA 6020B 2014
Nichel	µg/l	1,00	0,50	0,5	20	EPA 6020B 2014
Nitrati (ione nitrato)	mg/l	0,50	2,00	0,1	50	UNI EN ISO 10304-1:2009
Nitriti (ione nitrito)	mg/l	0,30	< 0,02	0,02	0,50	APAT CNR IRSA 4050 Man 29 2003
Selenio	µg/l	0,70	< 0,5	0,5	10	EPA 6020B 2014

(#) I limiti indicati si riferiscono ai valori di Parametro e ai valori Consigliati previsti dal D.Lgs. 18/2023

Composti organoalogenati						
Parametro	Unità di misura	Acqua di cessione BFSC	Acqua di rete	LOQ	Limite [#]	Metodo
Tetracloroetilene (A)	µg/l	< 0,1	< 0,1	0,1	//	EPA 5030C 2003 + EPA 8260D 2018
Tricloroetilene (B)	µg/l	< 0,1	< 0,1	0,1	//	EPA 5030C 2003 + EPA 8260D 2018
Sommatoria organoalogenati (A, B)	µg/l	< 0,1	< 0,1	0,1	10	EPA 5030C 2003 + EPA 8260D 2018
Cloroformio (C)	µg/l	0,30	4,3	0,01	//	EPA 5030C 2003 + EPA 8260D 2018
Bromoformio (D)	µg/l	< 0,01	0,0200	0,01	//	EPA 5030C 2003 + EPA 8260D 2018
Dibromoclorometano (E)	µg/l	< 0,01	0,37	0,01	//	EPA 5030C 2003 + EPA 8260D 2018
Bromodiclorometano (F)	µg/l	0,060	1,67	0,01	//	EPA 5030C 2003 + EPA 8260D 2018
Sommatoria trialommetani (C, D, E, F)	µg/l	0,40	6,4	0,1	30	EPA 5030C 2003 + EPA 8260D 2018
Uranio	µg/l	0,40	0,50	0,1	30	EPA 6020B 2014
Vanadio	µg/l	28	0,100	0,1	50	EPA 6020B 2014
Cloruro di vinile	µg/l	< 0,05	< 0,05	0,05	0,5	EPA 5030C 2003 + EPA 8260D 2018

Parametri Indicatori (Parte C)						
Parametro	Unità di misura	Acqua di cessione BFSC	Acqua di rete	LOQ	Limite [#]	Metodo
Alluminio	µg/l	29	87	5	200	EPA 6020B 2014
Ammonio (ione ammonio)	mg/l	0,0200	0,050	0,02	0,50	APAT CNR IRSA 4030 A1 Man 29 2003
Cloruro (ione cloruro)	mg/l	13,9	10,5	0,04	250	UNI EN ISO 10304-1:2009
Colore (scala Pt/Co)	mg/l	0	0	0	Senza variazioni anomale	APAT CNR IRSA 2020 C Man 29 2003
Conducibilità elettrica a 20 °C	µS/cm	428	371	5	2500	APAT CNR IRSA 2030 Man 29 2003
pH	unità pH	7,88	7,73		6,5 - 9,5	APAT CNR IRSA 2060 Man 29 2003
Manganese	µg/l	1,20	2,9	0,1	50	EPA 6020B 2014
Zinco	µg/l	< 5	5,0	5	//	EPA 6020B 2014
Odore	Tasso di dil.	No variazioni anomale	No variazioni anomale	1	Senza variazioni anomale	APAT CNR IRSA 2050 Man 29 2003
Ossidabilità (come O ₂)	mg/l	2,9	0,74	0,5	5,0	UNI EN ISO 8467:1997
Solfato (ione solfato)	mg/l	103	25	0,1	250	UNI EN ISO 10304-1:2009
Sodio	mg/l	28	8,4	0,5	200	EPA 6020B 2014
Sapore	Tasso di dil.	0	0	0	Senza variazioni anomale	APAT CNR IRSA 2080 Man 29 2003

Parametri Indicatori (Parte C2)						
Parametro	Unità di misura	Acqua di cessione BFSC	Acqua di rete	LOQ	Limite [#]	Metodo
Durezza	°F	13,3	19,0	0,3	≥ 15 ^{##}	EPA 6020B 2014
Calcio	mg/l	36	56	0,5	≥ 30 ^{##}	EPA 6020B 2014
Magnesio	mg/l	10,7	12,1	0,5	≥ 10 ^{##}	EPA 6020B 2014
Potassio	mg/l	23	1,40	0,5	//	EPA 6020B 2014
Residuo secco a 180 °C	mg/l	275	235	20	//	APAT CNR IRSA 2090 A Man 29 2003

(#) I limiti indicati si riferiscono ai valori di Parametro e ai valori Consigliati previsti dal D.Lgs. 18/2023

(##) Parametri indicatori raccomandati per acque sottoposte a trattamenti di desalinizzazione.

Determinazione della migrazione globale

Interno anello di giunzione in resina epossidica		
Determinazione [n.]	Valore ottenuto [mg/kg] ^{##}	Limite massimo ammissibile [#] [mg/kg]
1	3	60
2	6	60
3	7,5	60
media	5,5	60

Guarnizione in EPDM		
Determinazione [n.]	Valore ottenuto [mg/kg] ^{##}	Limite massimo ammissibile [#] [mg/kg]
1	10,5	60
2	4,5	60
3	3	60
media	6	60

(#) secondo D.M. 6 aprile 2004 n. 174 del Ministero della Salute

(##) risultato ottenuto trasformando mg/dm² in mg migranti/kg di acqua moltiplicandolo per il fattore di conversione convenzionale 6 (allegato III del D.M. 6 aprile 2004 n. 174)

Determinazione della migrazione del colore

Interno anello di giunzione in resina epossidica		
Liquido simulante	Trasmittanza tra 400 nm e 750 nm [%]	Limite minimo ammissibile [#] [%]
Acqua distillata o equivalente	99	>95

Guarnizione in EPDM		
Liquido simulante	Trasmittanza tra 400 nm e 750 nm [%]	Limite minimo ammissibile [#] [%]
Acqua distillata o equivalente	99	>95

(#) secondo D.M. 6 aprile 2004 n. 174 del Ministero della Salute

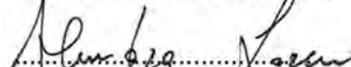
Conclusioni

Gli esiti analitici risultano **conformi** ai riferimenti indicati.

Il giudizio d'idoneità alimentare dell'oggetto è subordinato alla valutazione dell'esito dei risultati dei test eseguiti a tale scopo. Pertanto, è possibile ritenere che il materiale, nelle condizioni testate, sia idoneo a venire a contatto con gli alimenti simulati dai mezzi di cessione per i quali le prove di migrazione condotte, hanno dato esito conforme. Si sottolinea che l'idoneità alimentare è da considerarsi valida purché i monomeri, gli additivi ed i coadiuvanti tecnologici impiegati siano ammessi dalla legislazione vigente e gli eventuali limiti di migrazione globale e specifica siano rispettati.

Il Responsabile Tecnico di Prova
(Per Ind. Armando Ciccione)

Il Responsabile
del Laboratorio di Chimica
(Dott. Alessandro Lorenzi)



Unit 30 | Fern Close | Pen-Y-Fan Ind Est | Oakdale | Gwent | NP11 3EH | UK
Tel: +44 (0) 1495 236260 wales@nsf.org | www.nsf.org

TEST REPORT

Customer: C0771903

Welspun DI Pipes Limited
Survey No. 615, 616, 617, 618, 619, 632, 633,
634 and 650,
Welspun City
Versamedi Village, Anjar,
Kachchh, GJ 370110
India

Revised Report

Result	Limited testing was undertaken on this product in accordance with BS 6920: Part 2: Section 2.1: 2014, clause 6.14.2.1 (Factory made cementitious products free from organic additives or organic coatings). This product has satisfied the criteria set out in BS 6920: Part 1: 2014 "Specification" and thus is suitable for use with hot (up to 65°C) and cold water.
Customer Name	Welspun DI Pipes Limited
Product	Welmortar-BFS
Test Undertaken	BS 6920: 2014 - Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water
Job Number	J-00465869
Work Order Number	W0850084

Thank you for having your product tested by NSF Wales Ltd.

Please contact your Account Manager if you have any questions or concerns pertaining to this report.

Report Date 23-NOV-2023
Original issue date: 19-OCT-2023

Report Authorisation 
Eleanor Burger - Senior Project Manager Labs





Result Summary Section

Test	Result
Extraction of Metals BS 6920: Part 1: 2014, Clause 8 - 65°C	Pass



Sample Details

Date of Receipt of Application Form	24/05/23
Date of Receipt of Product for Test	03/07/23
Front Cover Test Description	Limited testing was undertaken on this product in accordance with BS 6920: Part 2: Section 2.1: 2014, clause 6.14.2.1 (Factory made cementitious products free from organic additives or organic coatings).
Date Test Sample Prepared *	26/03/23
Product *	Welmortar-BFS
Nature of Material *	Cement
Date Test Sample Manufactured *	26/03/23
Batch Number *	BC26
Receipt Conditions	Good Condition
Receipt Packaging	BUBBLE WRAP
Product Manufacturer *	Welspun DI Pipes Limited
Product Manufacturing Site *	India
Tradenname and Reference of Product *	Welmortar-BFS
Method of Manufacture *	Mixing
Typical Use of the Product *	Cement in contact with potable water.
Substrate *	Ductile iron
Method of Application *	Centrifugal spinning then cast into blocks
Number and Thickness of Coats Applied *	One coat 50 x 50 mm block (Cement:sand:water, 2:3:1 wt/wt)
Ambient Temperature at Time of Application *	30 °C
Curing Time *	28 days
Curing Temperature *	30 °C
Curing Place *	At the facilities of the manufacturer
Preparation and Curing Conditions in Accordance with Manufacturer's Instructions *	Yes
Nature of Product *	Block
Sampling Procedure *	Random
Address of Product Manufacturer *	Survey No. 618, Survey No. 615, 616, 617, 618, 619, 632, 633, 634, 650, Welspun City, Versamedi Village, Anjar, Kachchh, Gujarat, India, 370110.

* denotes customer supplied information

Sample Preparation

Description/Appearance of the product	Grey, opaque, rigid cement block
Length	50.3 mm
Width	50.8 mm
Surface area of one article	15331.4 mm ²
Number of articles constituting a sample	1
Surface area for test	15331.4 mm ²
Calibration mark of test container	1 L
Storage Conditions	As in BS 6920: Part 2: Section 2.1: Clause 5.2



Preconditioning

Preconditioning	The product was preconditioned in accordance with BS 6920: Part 2: Section 2.1: Clause 6.14.1.3
Aggressivity Index of preconditioning water	12.6
Sample code 10 pH readings	8.098, 8.106.
Sample code 20 pH readings	8.144, 8.101.

Job Attachments:



Photo 1



Extraction of Metals BS 6920: Part 1: 2014, Clause 8 - 65°C

Methodology: BS 6920: Part 2: Section 2.6 and in-house methods PROC/MAT 006 (leachate preparation) and PROC/ING 003 (ICPMS analysis).

Date Leaching Tests Started: 25-SEP-2023

First Extract

Metal (µg/L)	MAC (µg/L)	LOD (µg/L)	Blank (µg/L)	Sample 1 (µg/L)	Sample 2 (µg/L)
Aluminium	200	20	<20	141	191
Antimony	5	0.5	<0.5	<0.5	<0.5
Arsenic	10	1	<1	<1	<1
Boron	1000	100	<100	<100	<100
Cadmium	5	0.5	<0.5	<0.5	<0.5
Chromium	50	5	<5	13.3	<5
Iron	200	20	<20	33.5	<20
Lead	10	1	<1	<1	<1
Manganese	50	5	<5	<5	<5
Mercury	1	0.1	<0.1	<0.1	<0.1
Nickel	20	2	<2	<2	<2
Selenium	10	1	<1	<1	<1

Analytical Method - ICPMS Inductively Coupled Plasma Mass Spectrometry
MAC - Maximum admissible concentration
LOD - Required limit of detection

On the basis of these results the samples of this product referred to in this report have been found to conform to the requirements of BS 6920: Part 1: 2014, Clause 8.



<< **Testing Laboratories** >>

	<u>Flag</u>	<u>Id</u>	<u>Address</u>
All work performed at: (Unless otherwise specified)	→	NSF_WALES	NSF Wales Ltd. NSF Wales Ltd Unit 30 Fern Close Pen-Y-Fan Industrial Estate Oakdale, Newport NP11 3EH, UK

Job Notes:

This report replaces previously issued report with serial# FI20231019041102. This report is being re-issued due to indicate Cement:sand:water mix ratio. This does not change the overall status of the report.

NOTES

1. This report is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service (UKAS). NSF Wales Ltd is UKAS accredited against ISO/IEC 17025:2017 for testing, laboratory number 0626. For details of the laboratory Schedule of Accreditation please see the UKAS website (www.ukas.com).
2. The laboratory provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes.
3. Reported conformity statements have been applied in line with the decision rule inherent in the applicable testing standard.
4. Test reports utilise the simplified test report format option allowed by ISO/IEC 17025:2017 (reference clause 7.8.1.3). This simplified report does not include all of the information on the report specified by ISO/IEC 17025:2017 (clauses 7.8.2 to 7.8.7) but as stated in the standard this data is held by the laboratory and is available to the client on request.
5. Opinions and interpretations in this report are outside the scope of UKAS Accreditation.
6. The results specified in this report relate only to the sample(s) of the product submitted for testing. Any change in the source or nature of the product or materials used in the product, method of manufacture or application could affect the performance of the product.
7. This test report does not constitute approval or endorsement of the product by either NSF Wales Ltd or its parent companies.
8. The contents of this report are the copyright of NSF Wales Ltd and all rights are reserved. No part of this publication may be reproduced, stored in a retrieval system in any form or by any means electronic, mechanical, photocopying, recording or otherwise, without prior written consent of NSF Wales Ltd.
9. Any queries regarding this report should be addressed to the authorised signatory at NSF Wales Ltd. Copies of reports are retained by NSF Wales Ltd for ten years after issue.
10. Non UKAS accredited tests or tests which have been subcontracted will be identified in the following manner:
 - Tests marked † are not included in the laboratory's ISO 17025 accreditation schedule.
 - Tests marked ‡ have not been performed by NSF Wales Ltd and have been performed at an approved subcontract laboratory.
11. We draw to your attention that reports issued by the accredited test laboratories do not of themselves constitute approval by the Water Regulations Advisory Scheme or the test laboratory. Only a letter from the Scheme, citing a Directory Reference number can be regarded as indicating approval.
12. Materials and products intended for use by public water supply company in the preparation or conveyance of water may need to satisfy more comprehensive toxicological requirements as specified by the Drinking Water Inspectorate. These additional requirements are necessary to ensure water Company usage complies with Regulation 31 of the Water Supply (Water Quality) Regulations 2010.

ANEXO II



INSPECTION REPORT N°: WDIPL/KAN/CT/EN197/IR/003

Initial Interim Final Resident

Inspection requested by: **M/s. WELSPUN DI PIPES LIMITED, ANJAR, GUJARAT.**

BV Job Nr: IND.A.4.24.0869

Project: Compliance of Blast furnace cement as per EN197-1:2011	BV Job Nr : (local ref.): IND.A.4.24.0869
BV Client: M/s. WELSPUN DI PIPES LIMITED, ANJAR, GUJARAT.	IPO Ref (BV internal P/o): N.A. Place with: N.A.
Manufacturer/Vendor: WELMORTAR-BFS	P/o nr: N.A. Place with: N.A.
Sub-Vendor: N.A.	P/o nr: N.A. Place with:
Inspection Location: M/s. WELSPUN DI PIPES LIMITED, ANJAR, GUJARAT.	Previous Inspection: N.A.
Inspection Performed on: 14.12.2024	Next Inspection: As & when required
Total number of days inspection performed : 02	Inspection Performed until: 15.12.2024

MATERIAL / SUBJECT OF INSPECTION	ITEM / TAG Nr	QTY As per P/O	QTY Offered for inspection
<input type="checkbox"/> Refer to attachment section J instead)			
COMPLIANCE of BLAST FURNACE CEMENT EN197-1 CEM III/A, 52.5N (WELMORTAR-BFS) as per EN 197-1:2011		Annexure - 01	

A – INSPECTION RESULT

Satisfactory (Without comments) **Satisfactory with comments (Any of trailing Punch or Non Conformity items is still open)** **Not Satisfactory (NCR raised during the inspection)** **Not Satisfactory**

Inspection Summary: (for details refer to section E)

Inspection carried out with respect to the Bureau Veritas scope of work as per mail and standard. The supply/ subject of inspection mentioned above are acceptable and cleared for further process.

Open Non Conformities: Yes, details in section G No

Open Punch List Items: Yes, details in section H No

Release Note Issued: Yes, number(s): No

BV Traceability Stamping  

BV Inspector: CHIRAG SORATHIYA  	BV Coordinator: KAMINI VANJANI  
BV Office: Gandhidham	Inspection Report Date: 15.12.2024
Distribution: <input checked="" type="checkbox"/> CLIENT <input checked="" type="checkbox"/> BV <input type="checkbox"/> OTHER:	Attachments Report: <input checked="" type="checkbox"/> Yes, details in section J <input type="checkbox"/> No



B - REFERENCE DOCUMENTATION: Refer to attachment section J instead

Title	Reference n°	Rev.	Approval status	Approved by	Date
SCOPE OF WORK	EMAIL REF.	00	Approved	WDIPL	12.12.2024
REF. STANDARD	EN 197-1	-	Approved	EN	2016

C – ATTENDEES

Name	Position	Representing	E-Mail ID	Phone No.
CHIRAG SORATHIYA	SURVEYOR	BVIL	chirag.sorathiya@bureauveritas.com	9712932964
ABHIJIT GHOSH	VP (QA & TS)	WDIPL	Abhijit_ghosh@welspun.com	9836872237
RAVINDRA METI	DGM	WDIPL	Ravindra_meti@welspun.com	9925150946
PRABHUMAY	DM	WDIPL	Prabhumoy_Datta@welspun.com	9874546810

D - MEASURING & TESTING EQUIPMENT USED Refer to attachment section J instead

Equipment Type	Equipment Identity n°	Calibration traceable to NABL/ISO 17025 accredited lab(Yes/No)	Last Calibration Date	Expiry Date
COMPRESSION TESTING MACHINE	2112406	YES	07/03/2024	07/03/2025
WEIGHING BALANCE	D465632669	YES	10/05/2024	09/05/2025
THERMO HYGROMETER	63574936	YES	09/05/2024	08/05/2025
TIME INDICATOR OF SIEVE SHAKER	24031139	YES	08/05/2024	08/05/2025

Whether above equipment(s) checked for suitability and condition (Yes/No)

E - INSPECTION DETAILS

Sr.no.	Inspection stages	Evidences attached (Yes/No)
1	Sampling	Yes
2	Lab testing	Yes
3	Outside Lab reports review	Yes
4	Documentation	Yes

E1 – Details of Witness (W) & Hold (H) Inspection Points

- Under the request of M/s. Welspun DI Pipes Ltd. the undersigned Bureau Veritas Surveyor has visited their works for the witness of BLAST FURNACE CEMENT EN197-1 CEM III/A, 52.5N (WELMORTAR-BFS) as per EN 197-1:2011 at the laboratory of WDIPL, Anjar.
- Witness of Compressive strength test witness as per EN 197-1:2011.
- Spot samples were drawn after that sealed in packet and marked by signature for traceability purpose only.
- Cement mortar prism samples for compressive testing were prepared by mixing sand (1350 gm), cement (450 gm) & water (225 ml) by means of mixer & moulded with pre-standardize mould with



adequate compaction by using jolting machine as per EN196-1:2016

- Compaction samples were kept inside mould & humidity temp. controlled cabinet 24hrs.
- Total 03nos. of each cement mortar prisms were prepared and placed for water curing (28 days) after 24hrs in presence of surveyor for further testing.
- Compressive strength test (28 days) witnessed 03 nos. of each prisms – Results found within acceptable limits as per EN197-1:2011 (Refer test reports for more details)

E2 – Details of Monitoring and Surveillance Patrols Tick if conducted during the visit

Nil

E3 – Details of Certificates Review Tick if conducted during the visit

- Reviewed reports of Chemical analysis tests for loss of ignition (LOI) with sulphide correction, Insoluble residue test, Sulphate content (as SO₃), chloride content & tricalcium aluminate test as per EN196-2:2013 and result found satisfactory as per EN 197-1:2011
(Refer test reports for more details)
- Calibration & validity of the measuring instruments checked and found suitable to use. Offer item as mentioned in Supply/Subject of inspection found confirming to the requirement of BLAST FURNACE CEMENT EN197-1 CEM III/A, 52.5N (WELMORTAR-BFS) based on witnessing testing carried out as per EN 197-1:2011.
- Lab testing reports reviewed – Found in order.
- Test certificates of cement used during testing were reviewed – Found in order
(Blast Furnace Cement – 03 dated: 20/01/2023)
Remarks:-
- The inspection report is issued based on sample checks and supplier is responsible for the homogeneity. By issuing this report BVIL does not take responsibility for any statutory requirements for the destination, which shall be responsibility M/s. Welspun DI Pipes Ltd.
- Our inspection will not conform to any mandatory inspection of the destination country.
- LC requirement if any, not verified.

DISCLAIMER

BVIL has only verified the technical content during the certificate review of bought out item(s) and is not accountable for any compliance with lab traceability to ISO/IEC 17025 or NABL Accredited laboratory.

E4 – Problem Pending / Area Of Concern

Nil

E5 – Manufacturing Process Status

NA

F –HEALTH, SAFETY& ENVIRONMENT COMMENTS

1. Whether the safety requirement is assessed by using two minutes of safety booklet for my safety. (Yes/No)



Hazards

	Yes/No/NA
Is the equipment/energy isolated?	NA
If a permit is required, eg. Confined space entry, do I have it?	NA
Are tools and equipment in good condition and tagged?	Yes
In my work environment, is all necessary equipment (vehicle, conveyors, etc.) isolated?	Yes
Is the walking surface free of slip, trip and fall hazards?	Yes
Is the appropriate barricading for the task in place?	Yes
If someone works above me, am I protected from a falling object?	NA
Have I communicated with the other groups about their activities?	Yes

Personal Health

	Yes/No/NA
Am I fit for this task?	Yes
If the task involves heavy lifting, am I equipped to manage this factor?	NA

Conditions

	Yes/No/NA
If extreme weather conditions are a factor on this job, are there measures in place to manage it?	NA
Am I familiar with the equipment I inspect?	Yes

G- NON CONFORMITIES Refer to attachment section J instead

Item	Description	Status	Raised on	Report #	Closed on	Report #	Comments
Nil							

H – PUNCH LIST Refer to attachment section J instead

Item	Description	Status	Raised on	Report #	Closed on	Report #	Comments
Nil							

I - DIGITAL PICTURES



SAMPLE PREPARATION



SAMPLE PREPARATION



SAMPLE PREPARATION



SAMPLE PREPARATION



SAMPLE PREPARATION



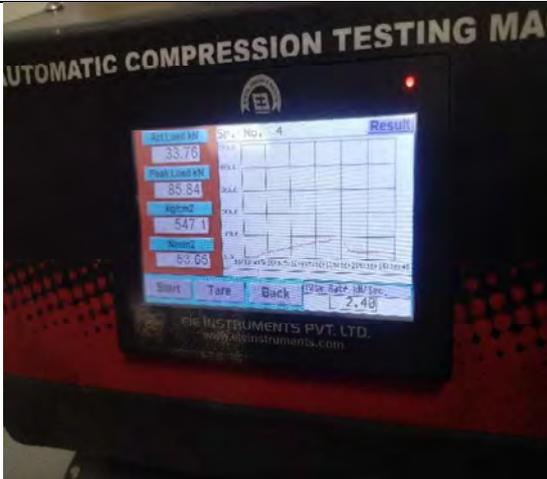
SAMPLE PREPARATION



SAMPLE PREPARATION



SAMPLE PREPARATION



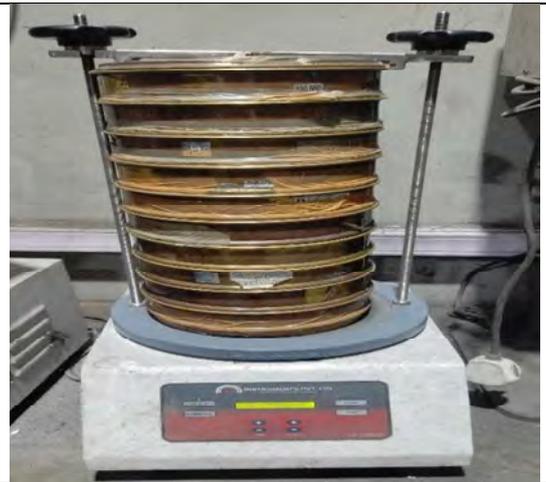
COMPRESSION TEST



COMPRESSION TEST



COMPRESSION TEST



SEIVE ANALYSIS



J – ATTACHMENTS			
Item	Attachment Name	Total Pages	Description
1	BVIPL LAB TEST REPORTS	01	-
2	CEMENT BATCH TEST CERTIFICATES	01	Blast furnace cement – CMD/PSC Week 03
3	CALIBRATION CERTIFICATE	02	ATL/MF/110324/002
4	COMPRESSION TEST REPORT	01	-

END OF REPORT

ANNEXURE – 01

Sr. no.	Material Description	Offered Qty (Samples)	Accepted Qty (Samples)	Rejected Qty (Samples)	Remarks
1	BLAST FURNACE CEMENT EN197-1 CEM III/A, 52.5N (WELMORTAR-BFS)	03 nos.	03 nos.	Nil	Nil



ANEXO III

CONSTRUCTION MATERIALS IN CONTACT WITH WATER

INTENDED FOR HUMAN CONSUMPTION

DECLARATION OF APPROVAL

CLIENT: WELSPUN EUROPE, S.A.

MANUFACTURER: WELSPUN CORP.

ADDRESS: C/ JUAN ESPLANDIU 11-13, 28007 MADRID, SPAIN

Process number: 04/2025

Declaration date: JUNE 11, 2025

The WELSPUN PIPE BFSC material is approved for use in contact with water intended for human consumption, in the EPAL supply system, in accordance with the specifications of the EPAL approval system for materials in contact with water.

This statement only concerns the assessment of the influence of materials on the quality of water for human consumption with regard to physical-chemical, chemical and organoleptic changes, in accordance with current European migration testing standards.

This statement is not related to the physical characteristics of the materials.

Empresa Portuguesa das Águas Livres, S.A.
Direção de Laboratórios

O DIRETOR

RUI MIGUEL MENEZES DAS NEVES CARNEIRO
Digitally signed
by RUI MIGUEL
MENEZES DAS
NEVES CARNEIRO
Date: 2025.06.12
12:43:35 +01'00'

(Rui Neves Carneiro)

This declaration is issued in accordance with the results contained in the test report on the WELSPUN PIPE BFSC material, dated June 11, 2025.

The declaration is valid for 5 years, unless there is a change in the product formulation or production process.

The declaration is 1 page long.

Publication of the statement is permitted.

Av. Berlim, nº 15 1800-031 Lisboa

Telefone: 218 552 700 Fax: 218 552 724 e-mail • ruí.carneiro@adp.pt Internet • www.epal.pt

ANEXO IV

CARSO - LABORATOIRE SANTÉ ENVIRONNEMENT HYGIÈNE DE LYON

Laboratoire Agréé pour les analyses d'eaux par le Ministère de la Santé

ATTESTATION DE CONFORMITE SANITAIRE (ACS)

Certificate of sanitary conformity

Conformément à l'arrêté du 29 mai 1997 modifié et aux circulaires du Ministère de la santé

DGS/VS4 n° 99/217 du 12 avril 1999 et DGS/VS4 n° 2000/232 du 27 avril 2000

Coordonnées du demandeur / Contact details of the ACS owner : HOLDWELL COMPONENTS PVT. LTD. Piot No.64_A, Sector-C Urla Industrial Area Raipur (Chhattisgarh) INDE	Nom(s) commercial(aux) du produit fini / Commercial name(s) of the finished product : HW 50
---	--

Type de produit fini / Type of finished product :		
<input type="checkbox"/> tube / pipe	<input type="checkbox"/> Réservoirs / Storage systems	<input checked="" type="checkbox"/> joint / seal, gasket, o-ring...
<input type="checkbox"/> revêtement pour tubes / coating for pipes	<input type="checkbox"/> Produits pour réservoirs / Products for storage systems	<input checked="" type="checkbox"/> composant d'accessoires / accessories component
<input type="checkbox"/> produit de jointoyage / sealing product	<input type="checkbox"/> raccord et manchon / fittings	<input type="checkbox"/> autre / other :
Nature du matériau / Type of material :		
<input type="checkbox"/> polychlorure de vinyl PVC	<input type="checkbox"/> polybutylène PB	<input checked="" type="checkbox"/> ethylene-propylène EPDM
<input type="checkbox"/> PVC surchloré PVC-C	<input type="checkbox"/> polyamide PA	<input type="checkbox"/> butadiène-acrylonitrile NBR
<input type="checkbox"/> polyéthylène PE	<input type="checkbox"/> polytétrafluoroéthylène PTFE	<input type="checkbox"/> autre / other : silicone
<input type="checkbox"/> polyéthylène réticulé PEX	<input type="checkbox"/> acrylonitrile-butadiène-styrène ABS	
<input type="checkbox"/> polypropylène PP	<input type="checkbox"/> à base de résine époxydique / epoxy resin	
Température(s) d'utilisation / Temperature(s) for the use :		
<input checked="" type="checkbox"/> Eau froide / Cold water	<input checked="" type="checkbox"/> Eau chaude / Warm water	<input type="checkbox"/> Eau très chaude / Hot water
Commentaires / Comments : renouvellement / renewal 16 MAT LY 216		
Couleur du matériau / Material color : noire / black		
N° de dossier attribué par le laboratoire habilité / File reference :		21 MAT LY 218

Formulation chimique / Chemical formulation : Vérifiée par le laboratoire et conforme aux listes positives Checked by the laboratory and conform to the positive lists

Essais de migration réalisés selon les normes NF EN 1420, NF EN 13052-1 & NF EN 12873-1 ou -2: Migration tests performed according to the standards NF EN 1420, NF EN 13052-1 & NF EN 12873-1 or -2 : Rapport S/V testé / S/V tested ratio : 1.5 dm ⁻¹ (NF EN 1420, NF EN 13052-1) & 5.1 dm ⁻¹ (NF EN 12873-1) Facteur de conversion associé / Associated conversion factor : 0.2 day/dm Date des essais / Tests date : du 26 Novembre 2021 au 18 Janvier 2022 / from November 26 To January 18, 2022 Commentaires : Les essais d'inertie n'ont fait apparaître aucune anomalie. Les résultats sont conformes aux critères d'acceptabilité fixés en annexe 1. Comments : The migration tests do not bring out any anomaly. The results are in accordance with the acceptance criteria set out in annex 1.

Attestation délivrée par / Certificate issued by : Christelle AUTUGELLE Responsable Laboratoire MCDE CARSO-LSEHL	Signature : 
A la date du / Date of issue : 26 Janvier 2022	
Date d'expiration de l'ACS / Expiry date : 26 Janvier 2027	
Commentaires / Comments :	

F_MC164_1 Rédaction : CAU / Validation : SFB / Approbation : CBE - 03/02/2020

Société par action simplifiée au capital de 2 283 622,38 Euros - RCS Lyon B 410 545 313 - SIRET 410 545 313 00042 - APE 743 B - N° TVA : FR 82 410 545 313

Siège Social et laboratoire : 4, avenue Jean Moulin - CS 30228 - F - 69633 VENISSIEUX cedex - Tél. : (33) 04 72 76 16 16 - Fax : (33) 04 78 72 35 03

Site web : www.groupecarso.com - e-mail : mcde@groupecarso.com

CARSO - LABORATOIRE SANTÉ ENVIRONNEMENT HYGIÈNE DE LYON

Laboratoire Agréé pour les analyses d'eaux par le Ministère de la Santé

ATTESTATION DE CONFORMITE SANITAIRE (ACS)

Certificate of sanitary conformity

Conformément à l'arrêté du 29 mai 1997 modifié et aux circulaires du Ministère de la santé

DGS/VS4 n° 99/217 du 12 avril 1999 et DGS/VS4 n° 2000/232 du 27 avril 2000

Coordonnées du demandeur / Contact details of the ACS owner : HOLDWELL COMPONENTS PVT. LTD. Piot No.64_A, Sector-C Urla Industrial Area Raipur (Chhattisgarh) INDE	Nom(s) commercial(aux) du produit fini / Commercial name(s) of the finished product : HW 80
---	--

Type de produit fini / Type of finished product :		
<input type="checkbox"/> tube / pipe	<input type="checkbox"/> Réservoirs / Storage systems	<input checked="" type="checkbox"/> joint / seal, gasket, o-ring...
<input type="checkbox"/> revêtement pour tubes / coating for pipes	<input type="checkbox"/> Produits pour réservoirs / Products for storage systems	<input checked="" type="checkbox"/> composant d'accessoires / accessories component
<input type="checkbox"/> produit de jointoyage / sealing product	<input type="checkbox"/> raccord et manchon / fittings	<input type="checkbox"/> autre / other :
Nature du matériau / Type of material :		
<input type="checkbox"/> polychlorure de vinyl PVC	<input type="checkbox"/> polybutylène PB	<input checked="" type="checkbox"/> ethylene-propylène EPDM
<input type="checkbox"/> PVC surchloré PVC-C	<input type="checkbox"/> polyamide PA	<input type="checkbox"/> butadiène-acrylonitrile NBR
<input type="checkbox"/> polyéthylène PE	<input type="checkbox"/> polytétrafluoroéthylène PTFE	<input type="checkbox"/> autre / other : silicone
<input type="checkbox"/> polyéthylène réticulé PEX	<input type="checkbox"/> acrylonitrile-butadiène-styrène ABS	
<input type="checkbox"/> polypropylène PP	<input type="checkbox"/> à base de résine époxydique / epoxy resin	
Température(s) d'utilisation / Temperature(s) for the use :		
<input checked="" type="checkbox"/> Eau froide / Cold water	<input checked="" type="checkbox"/> Eau chaude / Warm water	<input type="checkbox"/> Eau très chaude / Hot water
Commentaires / Comments : renouvellement / renewal 18 MAT LY 012		
Couleur du matériau / Material color : noire / black		
N° de dossier attribué par le laboratoire habilité / File reference : 22 MAT LY 347		

Formulation chimique / Chemical formulation : Vérifiée par le laboratoire et conforme aux listes positives Checked by the laboratory and conform to the positive lists

Essais de migration réalisés selon les normes NF EN 1420, NF EN 13052-1 & NF EN 12873-1 ou -2: Migration tests performed according to the standards NF EN 1420, NF EN 13052-1 & NF EN 12873-1 or -2 :
Rapport S/V testé / S/V tested ratio : 1.5 dm ⁻¹ (NF EN 1420, NF EN 13052-1) & 5.3 dm ⁻¹ (NF EN 12873-1)
Facteur de conversion associé / Associated conversion factor : 0.2 day/dm
Date des essais / Tests date : du 18 Novembre 2022 au 31 Janvier 2023 / from November 18, 2022 to January 31, 2023
Commentaires : Les essais d'inertie n'ont fait apparaître aucune anomalie. Les résultats sont conformes aux critères d'acceptabilité fixés en annexe 1.
Comments : The migration tests do not bring out any anomaly. The results are in accordance with the acceptance criteria set out in annex 1.

Attestation délivrée par / Certificate issued by : Christelle AUTUGELLE Responsable Laboratoire MCDE CARSO-LSEHL	Signature : 
A la date du / Date of issue : 07 Avril 2023	
Date d'expiration de l'ACS / Expiry date : 07 Avril 2028	
Commentaires / Comments :	

Approval Number 2303506
Test Report: MAT/LAB 310A, 312A rev.1 & J-00370665



Water Regulations Approval Scheme Ltd.
Unit 13,
Willow Road,
Pen y Fan Industrial Estate,
Crumlin,
Gwent,
NP11 4EG

22nd December 2022

Holdwell Components Private Ltd.
Plot No. 64-A, Sector-C,
Urla Industrial Area,
Raipur,
Chhattisgarh
India
492003

**WATER REGULATIONS APPROVAL SCHEME LTD. (WRAS)
MATERIAL APPROVAL**

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6920-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

RUBBERS- ETHYLENE PROPYLENE DIENE MONOMER (EPDM) - MATERIAL ONLY.

5365

'HW-EPDM'. Black coloured, compression moulded EPDM sheet materials.

Shore hardness 50, 60, 70 and 80. Tested in-radius size 1.0mm.

The 50 shore hardness material is for use with water up to 65°C.

The 60, 70 & 80 shore hardness materials are for use with water up to 60°C.

APPROVAL NUMBER: 2303506

APPROVAL HOLDER: HOLDWELL COMPONENTS PRIVATE LTD.

This is a re-approval of 1802507 which is valid between February 2018 and January 2023.

The Scheme reserves the right to review approval.

Approval 2303506 is valid between March 2023 and March 2028

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, "Materials which have passed full tests of effect on water quality".

The Directory may be found at: www.wrasapprovals.co.uk/approvals-directory/

Yours Faithfully

A handwritten signature in blue ink, appearing to read 'Ian Hughes', is written over a light blue horizontal line.

Ian Hughes
WRAS Approvals Manager

ATTESTATION DE CONFORMITE SANITAIRE (ACS)

Certificate of sanitary conformity

Conformément à l'arrêté du 29 mai 1997 modifié et aux circulaires du Ministère de la santé
DGS/VS4 n° 99/217 du 12 avril 1999 et DGS/VS4 n° 2000/232 du 27 avril 2000

Coordonnées du demandeur / Contact details of the ACS owner : P C Chanda & Co Pvt Ltd Ravi Auto House 103, Park Street 6th Floor Kolkata – 700 016 INDE	Nom(s) commercial(aux) du produit fini / Commercial name(s) of the finished product : Edelpoxy FN 132
--	--

Type de produit fini / Type of finished product :		
<input type="checkbox"/> tube / pipe	<input type="checkbox"/> joint / seal, gasket, o-ring...	<input checked="" type="checkbox"/> revêtement / coating
<input type="checkbox"/> produit de jointoyage / sealing product	<input type="checkbox"/> raccord et manchon / fittings	<input type="checkbox"/> composant d'accessoires / accessories component
<input type="checkbox"/> autre / other :		
Nature du matériau / Type of material :		
<input type="checkbox"/> polychlorure de vinyl PVC	<input type="checkbox"/> polybutylène PB	<input type="checkbox"/> ethylene-propylène EPDM
<input type="checkbox"/> PVC surchloré PVC-C	<input type="checkbox"/> polyamide PA	<input type="checkbox"/> butadiène-acrylonitrile NBR
<input type="checkbox"/> polyéthylène PE	<input type="checkbox"/> polytétrafluoroéthylène PTFE	<input type="checkbox"/> autre / other :
<input type="checkbox"/> polyéthylène réticulé PEX	<input type="checkbox"/> acrylonitrile-butadiène-styrène ABS	
<input type="checkbox"/> polypropylène PP	<input checked="" type="checkbox"/> à base de résine époxydique / epoxy resin	
Commentaires / Comments : Renouvellement / Renewal 15 MAT LY 082		
Couleur du matériau / material color : bleue / blue		
N° de dossier attribué par le laboratoire habilité / File reference : 20 MAT LY 127		

Formulation chimique / Chemical formulation : Vérifiée par le laboratoire et conforme aux listes positives. Checked by the laboratory and conform to the positive lists.

Essais d'inertie réalisés selon la norme XP P 41-250 / Migration tests performed according to the standard XP P 41-250 : Rapport S/V testé / S/V tested ratio : 3 cm ² /L Date des essais / Tests date : / Commentaires : La composition chimique du matériau n'ayant pas évolué et étant toujours conforme aux listes positives, de nouveaux essais d'inertie ne sont pas nécessaires. Les essais réalisés en 2015 restent valables et conformes. Comments : The chemical composition of the material did not change and it is still in compliance with our positive lists. New testings are not requested ; those performed in 2015 remain valid and compliant.

Attestation délivrée par / Certificate issued by : Christelle AUTUGELLE Responsable MCDE CARSO - L.S.E.H.L.	Signature : 
A la date du / Date of issue : 10 Août 2020	
Date d'expiration de l'ACS / Expiry date : 17 Juillet 2025	
Commentaires / Comments : /	

CARSO - LABORATOIRE SANTÉ ENVIRONNEMENT HYGIÈNE DE LYON

Laboratoire Agréé pour les analyses d'eaux par le Ministère de la Santé

Christelle AUTUGELLE
Phone : 00 33 4 37 65 29 62
Fax : 00 33 4 37 65 29 53
cautugelle@groupecarso.com

Lyon, le 03 Juillet 2025

P C Chanda & Co Pvt Ltd

Mr Anjan Ghosh
Ravi Auto House
103, Park Street
6th Floor
Kolkata – 700 016
INDE

Objet : Renouvellement d'ACS
V/Ref. : Demande du 26/04/2025

Monsieur Anjan Ghosh

Par la présente, je confirme avoir reçu de la part de la société **P C Chanda & Co Pvt Ltd**, la demande de renouvellement de l'Attestation de Conformité Sanitaire (ACS) **20 MAT LY 127** délivrée sur le produit :

Edelpoxy FN 132

Conformément à la circulaire DGS/VS4 n° 2000/232 du 27 avril 2000, un délai de un an est prévu pour le renouvellement de cette ACS et ce, à compter de la date de demande de renouvellement qui doit intervenir 6 mois avant la date d'expiration des ACS.

Cette ACS devra donc être renouvelée **avant le 17 Janvier 2026**. Pendant cette période, l'ACS reste **valable**.

L'étude de la composition du produit est terminée et les essais nécessaires au renouvellement de l'ACS vont être engagés.

Je reste à votre disposition pour tout complément d'information et vous prie d'agréer, Monsieur Anjan Ghosh, l'expression, de mes salutations distinguées.



Christelle AUTUGELLE
Responsable Laboratoire MCDE
Materials' Laboratory Manager

Approval Number 2104556
Test Report: J-00385608



Water Regulations Approval Scheme Ltd.
Unit 13,
Willow Road,
Pen y Fan Industrial Estate,
Crumlin,
Gwent,
NP11 4EG

20th October 2021

Berger Paints India Limited
14 & 15 Swarnamoyee Road,
Howrah - 711103,
West Bengal,
India

**WATER REGULATIONS APPROVAL SCHEME LTD. (WRAS)
MATERIAL APPROVAL**

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6920-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

BITUMINOUS BASED PRODUCTS- PETROLEUM OR ASPHALTIC BITUMEN, NOT COAL TAR BITUMEN. MATERIALS 5021 CONTAINING PETROLEUM OR ASPHALTIC BITUMEN ARE NOT APPROVED FOR USE ON WATER-RETAINING STRUCTURES WITH LARGE SURFACE:VOLUME RATIO SUCH AS LINING OF PIPES, CISTERNS OR WATER STORAGE TANKS IN CONTACT WITH WHOLESOME WATER, BUT MAY BE ACCEPTABLE FOR USE WHERE THERE IS ONLY A SMALL SURFACE AREA IN CONTACT WITH THE WATER – E.G. TAPS, VALVES AND PIPE CONNECTORS.

'BPL HB QD Bitumen Black 60'. Factory applied, black coloured bituminous coating.
Apply and cure as per manufacturer's data sheet number '671' dated 'Apr-20'.

For use with water up to 60°C.

APPROVAL NUMBER: 2104556
APPROVAL HOLDER: BERGER PAINTS INDIA LIMITED

The Scheme reserves the right to review approval.
Approval 2104556 is valid between April 2021 and April 2026

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, "Materials which have passed full tests of effect on water quality".

The Directory may be found at: www.wrasapprovals.co.uk/approvals-directory/

Yours Faithfully

A handwritten signature in blue ink, appearing to read 'Ian Hughes', with a horizontal line extending to the right.

Ian Hughes
WRAS Approvals Manager

Approval Number 2103516
Test Report: J-00370864



19th March 2021

PC Chanda & Co. PVT Ltd.
Ravi Auto House,
103 Park Street,
6th Floor,
Kolkata 700016,
India

Water Regulations Advisory Scheme Ltd.
Unit 13,
Willow Road,
Pen y Fan Industrial Estate,
Crumlin,
Gwent,
NP11 4EG

**WATER REGULATIONS ADVISORY SCHEME LTD. (WRAS)
MATERIAL APPROVAL**

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6920-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

COATINGS, PAINTS & LININGS- FACTORY APPLIED PIPE & FITTINGS COATINGS.

5030

'Edelpoxy FN 132 Blue Coating'. Factory applied, blue coloured epoxy coating. Apply as per manufacturer's instructions dated 'January 28, 2020'. Cure for 7 days@30°C. For use with water up to 85°C.

This material is only approved for the curing conditions that appear on the approval. If the cure conditions are varied from those specified on the approval then the material is not covered by the scope of the approval.

APPROVAL NUMBER: 2103516

APPROVAL HOLDER: PC CHANDA & CO. PVT LTD.

The Scheme reserves the right to review approval.
Approval 2103516 is valid between March 2021 and March 2026

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, "Materials which have passed full tests of effect on water quality".

The Directory may be found at: www.wrasapprovals.co.uk/approvals-directory/

Yours Faithfully

A handwritten signature in blue ink, appearing to read 'Ian Hughes', written over a light blue circular stamp.

Ian Hughes
WRAS Approvals Manager

Approval Number 2212572
Test Report: J-00436232



4th December 2023

PC Chanda & Co. PVT Ltd.
Ravi Auto House,
103 Park Street,
6th Floor,
Kolkata 700016,
India

Water Regulations Approval Scheme Ltd.
Unit 13,
Willow Road,
Pen y Fan Industrial Estate,
Crumlin,
Gwent,
NP11 4EG

**WATER REGULATIONS APPROVAL SCHEME LTD. (WRAS)
MATERIAL APPROVAL**

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6920-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

BITUMINOUS BASED PRODUCTS- PETROLEUM OR ASPHALTIC BITUMEN, NOT COAL TAR BITUMEN. MATERIALS 5021 CONTAINING PETROLEUM OR ASPHALTIC BITUMEN ARE NOT APPROVED FOR USE ON WATER-RETAINING STRUCTURES WITH LARGE SURFACE:VOLUME RATIO SUCH AS LINING OF PIPES, CISTERNS OR WATER STORAGE TANKS IN CONTACT WITH WHOLESOME WATER, BUT MAY BE ACCEPTABLE FOR USE WHERE THERE IS ONLY A SMALL SURFACE AREA IN CONTACT WITH THE WATER – E.G. TAPS, VALVES AND PIPE CONNECTORS.

'PCBIT III HIGHBUILD'. Factory applied, black coloured bituminous coating.

Apply as per manufacturer's instructions for use, reference 'PCC/ PC 820' dated 27.11.2023. Cure for 5 minutes@30°C. For use with water up to 23°C.

This material is only approved for the curing conditions that appear on the approval. If the cure conditions are varied from those specified on the approval then the material is not covered by the scope of the approval.

**APPROVAL NUMBER: 2212572
APPROVAL HOLDER: PC CHANDA & CO. PVT LTD.**

The Scheme reserves the right to review approval.
Approval 2212572 is valid between December 2022 and December 2027

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, "Materials which have passed full tests of effect on water quality".

The Directory may be found at: www.wrasapprovals.co.uk/approvals-directory/

Yours Faithfully

**Ian Hughes
WRAS Approvals Manager**

Approval Number 2101522
Test Report: J-00368462



23rd November 2021

Shalimar Paints Limited
Nashik Mumbai NH Road,
Gonde,
Nashik,
Maharashtra 422403
India

Water Regulations Approval Scheme Ltd.
Unit 13,
Willow Road,
Pen y Fan Industrial Estate,
Crumlin,
Gwent,
NP11 4EG

**WATER REGULATIONS APPROVAL SCHEME LTD. (WRAS)
MATERIAL APPROVAL**

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6920-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

BITUMINOUS BASED PRODUCTS- PETROLEUM OR ASPHALTIC BITUMEN, NOT COAL TAR BITUMEN. MATERIALS 5021 CONTAINING PETROLEUM OR ASPHALTIC BITUMEN ARE NOT APPROVED FOR USE ON WATER-RETAINING STRUCTURES WITH LARGE SURFACE:VOLUME RATIO SUCH AS LINING OF PIPES, CISTERNS OR WATER STORAGE TANKS IN CONTACT WITH WHOLESOME WATER, BUT MAY BE ACCEPTABLE FOR USE WHERE THERE IS ONLY A SMALL SURFACE AREA IN CONTACT WITH THE WATER – E.G. TAPS, VALVES AND PIPE CONNECTORS.

'Dicoat Medium Temp Black'. Factory applied, black coloured bitumen coating.

Apply as per manufacturer's user instructions reference 'SPL/RD/UI/2019100121', issue no. '01' dated 08.07.2020. Cure for 7 days@30°C.

Between 1st January 2021 to 22nd November 2021, the material is for use with water up to 50°C.
Between 23rd November 2021 and 31st January 2026, the material is for use with water up to 60°C.

This material is only approved for the curing conditions that appear on the approval. If the cure conditions are varied from those specified on the approval then the material is not covered by the scope of the approval.

APPROVAL NUMBER: 2101522
APPROVAL HOLDER: SHALIMAR PAINTS LIMITED

The Scheme reserves the right to review approval.
Approval 2101522 is valid between January 2021 and January 2026

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, "Materials which have passed full tests of effect on water quality".

The Directory may be found at: www.wrasapprovals.co.uk/approvals-directory/

Yours Faithfully

A handwritten signature in blue ink, appearing to read 'Ian Hughes', with a stylized flourish at the end.

Ian Hughes
WRAS Approvals Manager

Laboratoire habilité par le Ministère chargé de la santé en application de l'article R*.1321-52 du code de la santé publique

CERTIFICAT DE CONFORMITE

AUX LISTES POSITIVES DE REFERENCE

Certificate of conformity to positive lists

Conformément à l'arrêté du 29 mai 1997 modifié, aux circulaires du Ministère chargé de la santé

DGS/VS4 n° 99/217 du 12 avril 1999 et DGS/VS4 n° 2000/232 du 27 avril 2000

et aux avis parus au Journal Officiel du 24 février 2012 (texte n°119) et du 23 janvier 2018 (texte n°97)

Coordonnées du demandeur :

Contact details of the ACS owner

THOMAS GROZIER & SON PTY LTD

2/8 Prince William Drive

SEVEN HILLS, NSW 2147

AUSTRALIA

Nom(s) commercial(aux) du produit fini :

Commercial name(s) of the finished product

BK STANDARD PIPE JOINTING LUBRICANT

Type de produit fini / Type of finished product :

- Lubrifiant / Lubricant Ajout ou Adjuvant organique pour ciment / Organic cement admixture
 Graisse / Grease Revêtement à base de ciment / Cementitious coating
 Colle / Glue Joint diamètre inférieur à 63 mm / Seal, gasket, o-ring with a diameter lower than 63mm
 Autre / Other :

Commentaires / Comments : /

Couleur du produit / Product color : transparent / clear gel

N° de dossier attribué par le laboratoire habilité / File reference :

24 CLP LY 036

Formulation chimique / Chemical formulation :

La formulation chimique vérifiée par le laboratoire est conforme aux listes positives de référence. Ce certificat est établi sous réserve de la non-modification de la composition chimique du produit et des préparations commerciales qui le constituent. Il peut par ailleurs être remis en cause par l'évolution des listes positives.

The chemical formulation checked by the laboratory is conform to the positive lists. This certificate is issued provided that chemical composition of the product (and commercial preparations that constitute it) stays unmodified. It can also be reconsidered by the positive lists evolution.

Remarque / Remark : /

Attestation délivrée par / Certificate issued by : Christelle AUTUGELLE

Responsable Laboratoire MCDE

CARSO - L.S.E.H.L.

Signature :



A la date du / Date of issue : 17 Juin 2024

Date d'expiration du CLP / Expiry date : 17 Juin 2029

Commentaires / Comments : /

Approval Number 2203503
Test Report: M107193



17th January 2022

Thomas Grozier and Son Pty. Ltd.
2/8 Prince William Drive
Severn Hills
New South Wales 2147
Australia

Water Regulations Approval Scheme Ltd.
Unit 13,
Willow Road,
Pen y Fan Industrial Estate,
Crumlin,
Gwent,
NP11 4EG

**WATER REGULATIONS APPROVAL SCHEME LTD. (WRAS)
MATERIAL APPROVAL**

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6920-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

LUBRICANTS

5160

`BK Standard Lubricant`. Clear (colourless), translucent, soap based lubricant paste. For use with water up to 60°C.

APPROVAL NUMBER: 2203503

APPROVAL HOLDER: THOMAS GROZIER AND SON PTY. LTD.

This is a re-approval of 1702543 which is valid between February 2017 and February 2022.

The Scheme reserves the right to review approval.
Approval 2203503 is valid between March 2022 and March 2027

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, "Materials which have passed full tests of effect on water quality".

The Directory may be found at: www.wrasapprovals.co.uk/approvals-directory/

Yours Faithfully

A handwritten signature in blue ink, appearing to read 'Ian Hughes', with a horizontal line extending to the right.

Ian Hughes
WRAS Approvals Manager

ANEXO V

VER EXEMPLO EM ANEXO COMO CERTIFICADO DE TESTE DE FUNCIONAMENTO.



SGS India Pvt. Ltd.

Inspection report

File No: 500026906	Inspection Report No.: - AHM/DS/137/2025
Place of inspection: M/s Welspun DI Pipes Limited, Survey No. 615, 616, 617 618, 619, 632, 633 and 634, 650, Welspun City, Versamedi Village, Anjar, Kachchh, Gujarat, 370110.	Date of inspection: 21.06.2025
Time In: Date: 21.06.2025: 09: 30	Time Out: Date: 21.06.2025: 19:00
NAME & ADDRESS OF CLIENT/ CUSTOMER / BUYER / SUPPLIER	Welspun Europe S.A Juan Esplandiú, 11 - 3º 28007 Madrid (Madrid).
NAME & ADDRESS OF CONSIGNEE / END USER	---
NAME & ADDRESS OF THE SELLER / MANUFACTURER	Welspun House, 5th Floor, Kamala City, Senapati Bapat Marg, Lower Parel (West) 400013 Mumbai – India.
NAME & ADDRESS OF THE MANUFACTURER	M/s Welspun DI Pipes Limited, Survey No. 615, 616, 617 618, 619, 632, 633 and 634, 650, Welspun City, Versamedi Village, Anjar, Kachchh, Gujarat, 370110.
NAME & ADDRESS OF THE EXPORTER	M/s Welspun DI Pipes Limited
BASIS OF INSPECTION DOCUMENTS NO.	PO-02, Dated: 24/01/2025 (STOCK SPAIN (1))
VENDOR'S SALES ORDER NO.	4220000010
DATE OF LAST INSPECTION	21.05.2025
INSPECTION CALL REFERENCE	Date: 21.06.2025
STATUS OF PREVIOUS HOLD POINT / DEVIATION	NIL
P.O. STATUS: COMPLETED / BALANCE / HOLD	Incomplete

Item # as per Contract / Order	Description & Size	Quantity as per Contract / Order (Meters.)	Quantity Previously passed. (Meters.)	Quantity Offered (Meters.)	Quantity Now Passed (Meters.)	Quantity Rejected (Meters.)	Quantity Balance (Meters.)
Centrifugally cast (spun) Ductile iron pipes conforming to BSEN 545:2010 with socket and spigot ends suitable for flexible Tyton jointing with EPDM rubber gaskets as per BSEN 681-1 with inside Blast Furnace Slag Cement mortar lining and outside coated with 200 GSM Zinc and finishing layer of 70 µm Black Bituminous paint coating / 400 GSM Zinc-Aluminum and finishing layer of 100 µm Blue Epoxy paint coating.							
1	Size / Class: DN400 mm / C30 (Blue Epoxy Coating) Batch No.: 15F. Length of Pipe & Quantity 5.5 Meters. For 14 Nos.	275.0	0.0	77.0 (14 Nos.)	77.0 (14 Nos.)	0.0	198.0



Divyanshu
21/06/25



Inspection Report No: AHM/DS/137/2025		
Reference Documents	Scope of inspection and Status	Annexure No of Detailed report
PO No. & Date: As mentioned on page no. 1	<ol style="list-style-type: none"> Verified - Visual Inspection for Surface Quality as per QAP Sr. No. 1. -Completed. Witness - Dimension like external diameter (DE), Wall Thickness (e), straightness, length (L) & ovality as per QAP Sr. No. 2, 3, 4, 5 & 6, - Completed. Witness - Mechanical Test (Tensile Strength, % of Elongation & Brinell Hardness Test) as per QAP Sr. No. 7. -Completed Review - Zinc / Zn-Al Coating Mass deposition test report as per QAP Sr. No. 8. -Completed Review - Hydrostatic Pressure test report as per QAP Sr. No. 9. -Completed Witness - Internal Cement Mortar Lining (Thickness check on hardened lining & Surface inspection after coating) and Bore diameter after lining as per QAP Sr. No. 10. -Completed Witness - External Black Bituminous / Blue Epoxy Paint Coating (Coating Thickness & Surface Inspection) as per QAP Sr. No. 11. -Completed Verified - Marking on pipe as per QAP Sr. No. 12. -Completed Review - EPDM Rubber Gasket supplier's inspection report & WRAS approval as per QAP Sr. No. 13. -Completed Verified - Third party Inspection marking as per QAP Sr. No. 14 - Completed Reviewed - Work test / Mill test certificate as per QAP Sr. No. 15 - Completed Documents - Third party inspection report / Joint inspection report as per QAP Sr. No. 16 - Completed 	Annexure DS/01 (Next page)
QAP / ITP No: WDIPL/QAP-02, Rev. 00 Date: 05/02/2025		
Approved Drawing No.: NA Revision: NA		
Reference standard / code / specification & Edition / Version / Year: For DI Pipes – EN 545:2010 For EPDM Rubber Gasket – BSEN 681-1		
Sampling Standard & Edition / Version / Year: As per QAP		

Current Hold points / Deviations: NIL

Remarks:

- This Report reflects our observations at the time, date and place of Inspection and does not any evidence of dispatch.,
- Pipe offered for inspection in stacked condition at open yard so that we have done Dimensional & Visual inspection of pipe at accessible area.
- Manufacturer must be take Care of pipe during handling, Storage, Transportation and dispatch to avoid any damages and dispatch all pipe after cleaning of dust, rust or any touchup if required.

Enclosure:

- 1) Joint Inspection Report, Manufacturer's offer Memo for quantity & Work test certificate / Mill test certificate,
- 2) Dimension inspection report.
- 3) Mechanical test report,
- 4) ~~Zinc~~ / Zinc Aluminum coating test report, Hydrostatic pressure test report,
- 5) Test Certificate of Cement & ~~Bituminous~~ / Epoxy paint, ~~Zinc~~ / Zinc Aluminum wire and applicable WRAS approval,
- 6) EPDM Rubber Gasket supplier's inspection report & WRAS approval
- 7) Calibration certificate list of equipment Instruments used in inspection (Verified concern internal record & calibration certificate)





Detailed Inspection Report

File No: 500026906		Annexure No: DS/01			
Report No and Date: AHM/DS/137/2025, Date: 21.06.2025		Page: 1 of 1			
Material and Quantity inspected as mentioned on page No. 1					
Sr. No.	Details of activity performed findings and product marking	Conclusion			
1	Pipe Quantity verified and Visual Inspection done for offered pipe (Batch/Size/Class). Pipe offered for inspection at open yard as stacked condition with external & internal coated condition. Pipes were found free from surface imperfections, or any other defects and quantity checked as per Inspection offer Memo.	Satisfactory			
2	Witnessed Dimension for offered pipe (Batch/Size/Class) on randomly selected sampled pipes like External Diameter (DE), Wall Thickness (e), Straightness, length (L) & Ovality all the dimensions found within acceptance limits as per requirement of QAP.	Satisfactory			
3	Witnessed Mechanical properties test for offered pipe as per QAP. Tensile strength found more than 420 MPa, % Elongation more than 10% and Brinell Hardness less than 230 HB.	Satisfactory			
4	Reviewed Zinc / Zn-Al coating mass deposition test report for coating deposition for offered pipe after verification of manufacturer's internal record, results found more than the minimum requirement.	Satisfactory			
5	Reviewed Hydrostatic Pressure test report for 30 Bar pressure for DN400 / C30 holding for 10 second minimum.	Satisfactory			
6	Witnessed Internal Cement Mortar Lining thickness on hardened lining and surface appearance at the socket & spigot end for offered pipe (Batch/Size/Class) on randomly selected sampled pipes and lining thickness found more than the minimum requirement of QAP & Verified internal bore diameter for offered pipe (Batch/Size/Class) after cement mortar lining checked by inside caliper found clear.	Satisfactory			
7	Witnessed external finishing layer of black Bitumen / Blue Epoxy paint coating thickness and Appearance for offered pipe (Batch/Size/Class) on randomly selected sampled pipes coating thickness found more than the minimum requirement of QAP.	Satisfactory			
8	<p>Manufacturer's Marking on pipe as</p> <p>Inside Socket (Cast on) – Material of pipe as DI, Nominal Diameter of pipe, Manufacturer's Name as WEL-IND, and Year of Manufacturing as 25.</p> <p>On Socket face – Class of Pipe & Batch Number</p> <p>On Pipe Barrel – Manufacturer's Name/Trademark as WELSPUNFLOW/Logo, BSI Logo & Reference standard.</p> <p>On Spigot end - Nominal Diameter and Pipe Length near Insertion Marking.</p> <p>Additional Marking: N/A</p>	Satisfactory			
9	EPDM Rubber Gasket supplier's inspection report & WRAS approval	Satisfactory			
10	"SGS" Yellow stickers affixed double on the sampled pipes & single on balance Pipes at socket face of the pipe for Inspection identification purpose only.	Identification			
11	Third party inspection document completed as mentioned in enclosure.	Satisfactory			
Number of Photographs taken: Photography Not Allowed.					
Confirm Instruments used are in working condition & suitable for intended purpose: YES / NO					
Verified the Qualification, Training & Experience of the person performing the test before witness: YES / NO					
Instrument Name & Identification No.	Range of calibration (suitability)	Calibration date	Calibration due date	Calibrated By	Calibration Traceable to National / International standard
As per attached Annexure					
Verified the Calibration Certificates of above-mentioned Instruments also for Accuracy, Uncertainty & % Error before allowing / using it for test / inspection and found suitable: YES / NO					
DISCLAIMER:- In case test certificates of bought out items/raw materials are not from accredited laboratory, SGS responsibility is limited to verify the test results against the requirement and not to assess the accuracy / suitability of results specified in the test report.					

Inspection Identification (Actual Impression)	Location of identification	Name and signature of SGS representative	Name and signature of Manufacturer / Vendor representative
"SGS Yellow Sticker"	At Socket face of Pipe	 (Mr. Divyansinh & Team)	

Disclaimer:

This document does not have any Legal or Commercial value and hence cannot be used for any commercial and legal purposes.

This is just a site report applicable at the time, date and place of inspection.

Final Negotiable Document as agreed shall be obtained from SGS Office

Debriefing & Vetting Status: (vetting authority to confirm status from a, b, c, d, e).

a. Refer Hold/Remarks from Page 2.

b. Released for next stage

✓ c. Satisfactory - IRN/Report/Certificate can be issued

d. Abortive visit

e. Conditional clearance of stage subject to client approval

Name of Vetting authority, Date & Time: (Mr. Nagji Kalal, Date: 21.06.2025 & Time: 18:45)

Welspun DI Pipes Limited

Welspun City, Anjar, Kutch, Gujarat- 370110

INSPECTION OFFER MEMO

Date : 21-06-2025

Customer Name : Welspun Europe S.A.
Customer Address : Juan Esplandiú, 11-3ª 28007 Madrid (Madrid)
Customer PO No. : PO-02, Dated- 24/01/2025 -STOCK SPAIN (1)
Sales order No : 4220000010
Material Description : Centrifugally cast (spun) Ductile iron pipes for water pipelines conforming to BSEN 545:2010 with socket and spigot ends suitable for flexible push on jointing with EPDM rubber gaskets as per BSEN 681-1 with inside Blast Furnace Slag Cement mortar lining and outside coated with Zn-Al with a finishing layer of Blue Epoxy coating
Specification : BSEN 545:2010
QAP No. (If any) : Standard QAP No.- WD IPL/QAP-02, Rev: 0, Dated- 05/02/2025
Inspection Agency : SGS India Pvt. Ltd.
Order Status : Incomplete

Details of materials are as under :

Order Qty. (Mtrs.)	Previous Inspected Qty. (Mtrs.)	Now Offered Qty.							Balance Qty. (Mtrs.)
		Batch No.	Quantity in Nos.		Total	Length in Meters		Total	
			5.5	5.0		5.5	5.0		
Size & Class : 400C30 Blue Epoxy									
275.0	0	15F	14	0	14	77.0	0.0	77.0	198.0
Total			14	0	14	77.0	0.0	77.0	

Rubber Gaskets :

Size	Qty.
DN 400	15

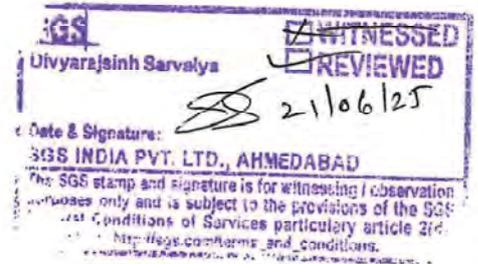
EPDM Rubber gaskets (Push-on joint) as per BSEN 681-1 / ISO 4633:2023

For, Welspun DI Pipes Ltd.

For, SGS India Pvt. Ltd.



Mr. Darsan Bambhaniya
Quality Assurance



Welspun DI Pipes Limited

Welspun City, Anjar, Kutch, Gujarat- 370110

WORKS TEST CERTIFICATE / MILL TEST CERTIFICATE

W.T.C. No. : WD IPL/QA/WTC/25-26/0305 **Date :** 21-06-2025
Customer Name : Welspun Europe S.A.
Customer Address : Juan Esplandiu, 11-3^a 28007 Madrid (Madrid)
Customer PO No. : PO-02, Dated- 24/01/2025 -STOCK SPAIN (1)
Sales order No : 4220000010
Material Description : Centrifugally cast (spun) Ductile iron pipes for water pipelines conforming to BSEN 545:2010 with socket and spigot ends suitable for flexible push on jointing with EPDM rubber gaskets as per BSEN 681-1 with inside Blast Furnace Slag Cement mortar lining and outside coated with Zn-Al with a finishing layer of Blue Epoxy coating
Specification : BSEN 545:2010
Inspection Agency : SGS India Pvt. Ltd.
Item Size & Class : As mentioned below

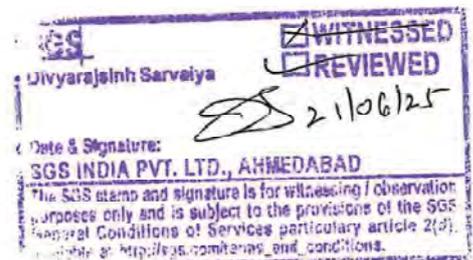
Size/Class	Batch Nos	Now Offered Qty.					
		Quantity In Nos.		Total	Length In Meters		Total
		5.5	5.0		5.5	5.0	
400C30 Blue Epoxy	15F	14	0	14	77.0	0.0	77.0

For, Welspun DI Pipes Ltd.

For, SGS India Pvt. Ltd.



Mr. Darsan Bambhaniya
 Quality Assurance



Welspun DI Pipes Limited

Welspun City, Anjar, Kutch, Gujarat- 370110

WORKS TEST CERTIFICATE / MILL TEST CERTIFICATE

INSPECTION & TESTING

- Visual Check** : All pipes were visually checked & found free from all types of surface defects and conforming to BSEN 545:2010.
- Dimension check** : External diameter, wall thickness, length, ovality and straightness are checked and found conforming to BSEN 545:2010.
- External Zinc-Al coating mass check** : Coatings are checked for Zn-Al mass, results found conforming to BSEN 545:2010.
- Mechanical test** : UTS, % Elongation and Hardness conducted on batch samples and the test results found conforming to BSEN 545:2010.

Size/Class	Batch Nos	Tensile Strength (Min: 420MPa)	Elongation (Min.: 10%)	BHN (Max:230)
400C30 Blue Epoxy	15F	459.32	15.45	183

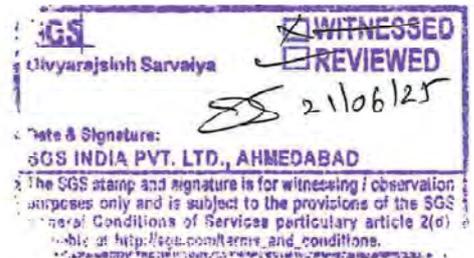
- Hydrostatic pressure test** : 100% of the pipes are tested as per specification and observed no leakage/sweating conforming to BSEN 545:2010.
- Internal Blast Furnace Slag Cement (BFSC) lining** : Linings are checked for internal Blast Furnace Slag Cement (BFSC) mortar lining thickness, results found satisfactory and conforming to BSEN 545:2010.
- External Blue Epoxy coating thickness** : Coatings are checked for external Blue Epoxy coating thickness, results found satisfactory and conforming to BSEN 545:2010.
- Markings** : Markings are done as per BSEN 545:2010 and latest amendments and purchase order requirements.

For, Welspun DI Pipes Ltd.

For, SGS India Pvt. Ltd.



Mr. Darsan Bambhaniya
 Quality Assurance



Welspun DI Pipes Limited

Welspun City, Anjar, Kutch, Gujarat- 370110

WARRANTY CERTIFICATE

Certificate No. : WDIPL/QA/WC/SO_4220000010, Dated- 21/06/2025

Customer Name : Welspun Europe S.A.

Customer Address : Juan Esplandiú, 11-3° 28007 Madrid (Madrid)

Customer PO No. : PO-02, Dated- 24/01/2025 -STOCK SPAIN (1)

Sales order No : 4220000010

Material Description : Centrifugally cast (spun) Ductile iron pipes for water pipelines conforming to BSEN 545:2010 with socket and spigot ends suitable for flexible push on jointing with EPDM rubber gaskets as per BSEN 681-1 with inside Blast Furnace Slag Cement mortar lining and outside coated with Zn-Al with a finishing layer of Blue Epoxy coating

Specification : BSEN 545:2010

Inspection Agency : SGS India Pvt. Ltd.

Item Size & Class : As mentioned below

Quantity :

Size/Class	Batch Nos	Now Offered Qty.		Total Qty. (Nos.)	Total Qty. (Mtrs.)
		Quantity In Nos.			
		5.5 Mtrs	5.0 Mtrs		
400C30 Blue Epoxy	15F	14	0	14	77.0

We hereby warranty that all the materials as detailed above conforms to specification and purchase order condition and warranted for a period of 12 months from the date of commissioning or 18 months from the date of dispatch whichever is earlier against any manufacturing defects.

For, Welspun DI Pipes Ltd.



Mr. Darsan Bambhaniya
Quality Assurance

Welspun DI Pipes Limited

Welspun City, Anjar, Kutch, Gujarat- 370110

JOINT INSPECTION REPORT

JIR No. : WD IPL/JIR/EXP/SO_4220000010 **Date:** 21 06 2025

Customer Name : Welspun Europe S.A.

Customer Address : Juan Esplandiú, 11-3º 28007 Madrid (Madrid)

Customer PO No. : PO-02, Dated- 24/01/2025 -STOCK SPAIN (1)

Sales order No : 4220000010

Inspection agency : SGS India Pvt. Ltd.

Date of inspection : 21-06-2025

Name of manufacturer : Welspun DI Pipes Limited, Welspun City, Anjar, Gujarat

Description of product : Centrifugally cast (spun) Ductile iron pipes for water pipelines conforming to BSEN 545:2010 with socket and spigot ends suitable for flexible push on jointing with EPDM rubber gaskets as per BSEN 681-1 with inside Blast Furnace Slag Cement mortar lining and outside coated with Zn-Al with a finishing layer of Blue Epoxy coating

Quantity :

Size/Class	Batch No.	Ordered Quantity	Prev. Passed Quantity	Cleared Quantity	Balanced Quantity
(DN/C)		(mtrs.)	(mtrs.)	(mtrs.)	(mtrs.)
400C30 Blue Epoxy	15P	275.0	0.0	77.0	198.0

Note: Above Materials are Cleared & Released for despatch.

For, Welspun DI Pipes Ltd.

For, SGS India Pvt. Ltd.



Mr. Darsan Bambhaniya
 Quality Assurance

SGS WITNESSED
 REVIEWED
 Uvyarajsinh Sarvalya
 Signature: *[Signature]* 21/06/25
 Name & Signature: **SGS INDIA PVT. LTD., AHMEDABAD**
The SGS stamp and signature is for witnessing / observation purpose only and is subject to the provisions of the SGS Conditions of Services particularly article 7(c) and 7(d) of the SGS conditions and conditions.

Welspun DI Pipes Limited

Welspun City, Anjar, Kutch, Gujarat- 370110

JOINT INSPECTION REPORT

JIR No. :

WDPL/JIR/EXP/SO_422000010

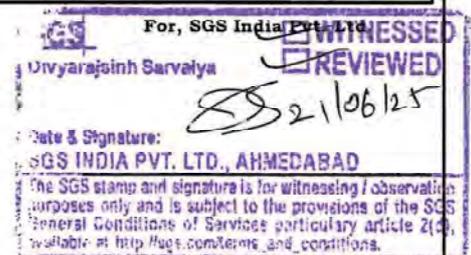
Date: 21-06-2025

The following tests were carried out on the pipes offered above :

SNO	Nature of Test	Requirements as per specification			Observation
1	Visual Inspection	Free from surface or other defects. Small imperfections do not affect pipes serviceability, shall not be rejected.			Surface found Satisfactory
2	Wall thickness	As per BSEN 545:2010			Dimensions were checked and found conforming to specification. Report enclosed (Annexure I)
3	External Diameter	As per BSEN 545:2010			
4	Length	5.5 mtrs			
5	Straightness	Within 0.125% of the Length of the pipe			
6	Ovality	As per BSEN 545:2010			
7	Tensile strength	Minimum 420MPa				Samples were checked and found Satisfactory. Report enclosed (Annexure II)
8	Elongation	Minimum 10%			
9	Hardness	Should not exceed 230 HBW			
10	Rubber Gasket	As Per BSEN 681-1/ISO 4633			Test certificates reviewed & the same enclosed. (Annexure III)
11	Zinc-Al coating mass	As per BSEN 545:2010			Manufacturers Internal test report Reviewed and found satisfactory (Annexure IV)
12	Hydrostatic Pressure	Size/Class (DN/C)	Test pressure (Bar)	Pressure Holding Time	Internal records have been reviewed & found satisfactory. Further, a certificate has been obtained from the manufacturer that each & every pipe has been tested for hydrostatic test as per Clause no. 4.8, 6.5.1 & 6.5.2 (Annexure V)
		DN400/C30	30	10 Seconds	
13	Cement mortar lining Thickness (BFSC)	As per BSEN 545:2010			Pipes checked and found conforming to specification - Report enclosed (Annexure I)
14	Bore dia after cement mortar lining	As per BSEN 545:2010			
15	Blue Epoxy Thickness	As per Purchase order requirement [100 microns for 400/C30 Blue epoxy pipes]			
16	Marking	Requirements.			Witnessed the following markings
		Pipe			
		a)	Batch No.	Paint marking at socket face	
		b)	Manufacturers Name	WELSPUNFLOW Stencilled on barrel & WEL-IND As-Cast inside the socket	
		c)	Nominal Dia	DN Size - As-Cast inside Socket & Stencilled at Spigot end	
		d)	Class reference	C30- Paint marking on socket face	
		e)	Year of manufacture	25 - As-Cast Inside the socket	
		f)	Identification as Ductile Iron	DI- As-Cast Inside the socket	
		g)	Length of pipe	Stencilled at Spigot end	
		h)	Reference Standard	BSEN 545:2010- Stencilled on Barrel.	
i)	Special Marking (if any)	N/A			
17	TPI Markings	Sample Pipes are double Yellow Stickered & Rest are single Yellow stickered at Socket Face.			

For, Welspun DI Pipes Ltd.

Mr. Darsan Bambhaniya
Quality Assurance



The SGS stamp and signature is for witnessing / observation purposes only and is subject to the provisions of the SGS General Conditions of Service particularly article 2(d), available at http://sgs.com/terms_and_conditions.

Annexure - I

Dimensional, CML Thickness & External Coating Inspection Report

Date: 21-06-2025

Size/Class, Offer Qty. & Sample Size :

Size/Class	Batch Nos.	Offered Qty. (Nos.)	Sample Size (Nos.)
400C30 Blue Epoxy	15F	14	3

Specified Range	Batch No.	External Diameter (DE)	Metal Thickness (e)	Length (MM)	Ovality (%)	Straightness 1.25xL	(BFSC) Cement Lining Thickness		Blue Epoxy Coating Thickness	Minimum Bore of Lined Pipe	Remarks
		(MM)	(MM)			(MM)	(MM)	(MM)	(Micron)	(MM)	
Nominal		429.0	6.5	5500	1.0		5.0	....	....	Checked by inside Caliper & found within tolerance limit	
Minimum		425.5	4.8	5470		....	3.0	100(Mean)	390		
Maximum		430.0	....	5570		6.875 (for 5.5 mts)	....	....	....
1	15F	426.3	8.0	5550	Checked & found within limits	0.5	4.8	4.7	153	133	Satisfactory
2	15F	427.8	7.6	5530		0.5	3.6	6.3	161	153	Satisfactory
3	15F	425.9	7.2	5525		0.5	3.9	6.7	148	137	Satisfactory

Conclusion : Inspection done as per BSEN 545:2010 & Sampling done as per ISO 2859-1 (AQL- 2.5. Inspection level- General-II) and found satisfactory.

For, Welspun DI Pipes Ltd.

For, SGS India Pvt. Ltd.



Mr. Darsan Bambhaniya
Quality Assurance

SGS
Divyrajsinh Sarvalya

WITNESSED
 REVIEWED

Date & Signature: 21/06/25

SGS INDIA PVT. LTD., AHMEDABAD

The SGS stamp and signature is for witnessing / observation purposes only and is subject to the provisions of the SGS General Conditions of Services particularly article 2(d), available at <http://www.sgs.com>.



Testing Laboratory,
Welspun DI Pipes Limited, Anjar Facility

Welspun City, Survey No. 632,633, 617,618, Village Versamedi, Taluka Anjar, Dist. Kutch, Gujarat - 370110, India

TEST REPORT

Format No. : WD IPL/TL/FM/30A

TC No. : WD IPL/TL/210625/0012
ULR No. : TC1289425000001541F

Issue Date: 21-06-2025

Customer Details

Customer Name & Address: Welspun Europe S.A.
Customer PO No. : PO-02, Dated- 24/01/2025 -STOCK SPAIN (1)
Sales Order No. 4220000010

Testing Details

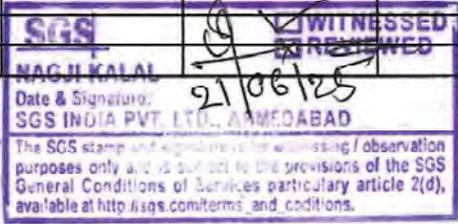
Date of Sample Received : 21-06-2025
Date of Testing : 21-06-2025
Type of Test : Mechanical Testing
Reference Standards : BSEN 545:2010
Reference Test Method : ISO 6892:Part 1:2019, ISO 6506:Part1:2014
Description of Sample : Machined Mechanical test piece
Condition of sample : OK
Place of Testing : Testing Laboratory, Welspun DI Pipes Limited, Anjar Facility
Environmental Condition : Temperature(°C): 23.7 RH(%): 32.8
Machine / Instrument used : Universal Testing Machine- Unitek 9450, Calibration Due On: 25-07-2025
Brinell Hardness Tester- B-3000(PC), Calibration Due On: 25-07-2025

Tensile Testing Crosshead Separation
Rate: 2 mm / min.

Hardness Testing
Ball Diameter (mm)/Load (Kgf): 5/750

Test Result

SL No.	Sample Id.			ISO 6892:Part 1:2019		ISO 6506:Part1:2014
	DN/Class	Batch No.	Sample No.	Elongation (%)	Tensile Strength (N/mm ²)	Hardness (HBW 5/750)
1	400C30	15F	1541-1	17.77	478.43	168



Reviewed By: *[Signature]*
Name: UMESH CH. SAHOO
Designation: Deputy Technical Manager

Authorised By: *[Signature]*
Name: PRABHUNOY DATTA
Designation: Quality Manager

Conditions:

- Results given above relate only to the sample/samples tested.
- This report shall not be reproduced except in full, without written approval from laboratory.
- The report is being issued on the specific understanding that laboratory will not in any way be involved in any action following the interpretation of the above result.
- The laboratory is not responsible for the sampling stage thus the test results apply to the sample/samples as received.
- All details related to customer are received by the laboratory from TPI Cell.
- Sample/samples shall be retained for 30 days after reporting the result.



HOLDWELL COMPONENTS PVT LTD.
(AN ISO 9001 : 2015 COMPANY)

PHYSICAL TEST REPORT OF TYTON RUBBER GASKET

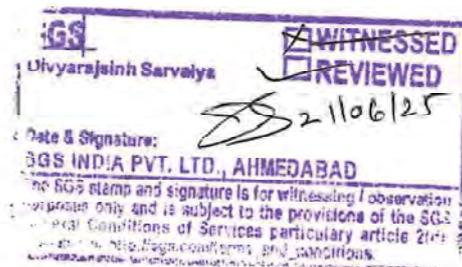
REPORT NO. HCPL/01/25-26			DATE:15-05-2025		
SPECIFICATION NO.: IS:5382: 2018, ISO:4633 & BSEN:681-1					
PURCHASE ORDER NO.: 2581210112 Dtd.12.04.2025,2581210151 Dtd.14.04.2025 & 2581210405 Dtd.09.05.2025			BATCH NO.04/2025 & 05/2025 (2Q/2025)		
ITEM: Push-On Rubber gasket made of EPDM polymer					
WRAS EPDM CODE: HW-EPDM					
SIZE -DN-100,150,200,250,300,350,400,450,500,600,700,800 & 1000 mm					
QUANTITY- 13500,9800,6300,2300,2600,1000,1350,3200, 650,650,100,500 & 300 Nos.					
Sl. No	Test Particulars	Test Method	Specified Value	Observed Value	
				Min	Max
1	Hardness IRHD	ISO 48	45 - 55	47.5	53.4
2	Tensile strength (Mpa, (Min)	ISO 37	9 min	12.7	13.4
3	Elongation at Break (Min)	ISO 37	375 min	580	645
4	Compression Test (% Max)				
a	at 70°C for 24 hrs.	ISO 815	20 % max	12.6	14.9
b	at 23°C for 72 hrs.		12 % max	8.5	9.7
c	-10°C for 72 hrs.		40 % max	22.0	25.6
5	Ageing at 70°C for 168 hrs.	ISO 188			
a	Change in Hardness	ISO 48	-5 to +8	+2	+3
b	Change in Tensile strength % (Max)	ISO 37	-20%	-12.2	-8.5
c	Change in Elongation at break %	ISO 37	-30 to +10%	-13.7	-9.8
6	Water immersion change in volume at 70°C for 168 hrs.	ISO 1817	-1 to +8%	+2.52	+2.97
7	Stress Relaxation for 7 days at 23°C	ISO 3384	14% max	9.9	10.7
8	Ozone resistance 48 hrs./50 pphm ozone at 40°C.	ISO 1431-1	No cracking when viewed without magnification	No Cracks	

Remark: The above values conform IS: 5382:2018, BSEN-681-1 & ISO: 4633 of Hardness Class-50 compound.

For, Holdwell Components Pvt. Ltd.



Q.C. In-Charge



HOLDWELL COMPONENTS PVT LTD.
(AN ISO 9001 : 2015 COMPANY)

PHYSICAL TEST REPORT OF TYTON RUBBER GASKET

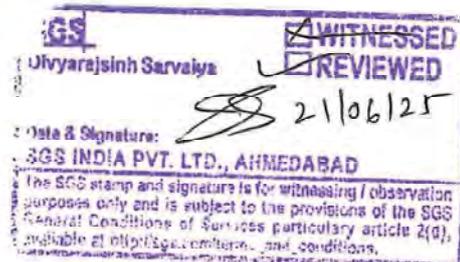
REPORT NO. HCPL/01/25-26			DATE: 15-05-2025		
SPECIFICATION NO.: IS:5382: 2018, ISO:4633 & BSEN:681-1					
PURCHASE ORDER NO.: 2581210112 Dtd. 12.04.2025, 2581210151 Dtd. 14.04.2025 & 2581210405 Dtd. 09.05.2025			BATCH NO. 04/2025 & 05/2025 (2Q/2025)		
ITEM: Push-On Rubber gasket made of EPDM polymer					
WRAS EPDM CODE: HW-EPDM					
SIZE - DN-100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800 & 1000 mm					
QUANTITY- 13500, 9800, 6300, 2300, 2600, 1000, 1350, 3200, 650, 650, 100, 500 & 300 Nos.					
Sl. No	Test Particulars	Test Method	Specified Value	Observed Value	
				Min	Max
1	Hardness IRHD	ISO 48	75 - 85	77.6	83.6
2	Tensile strength Mpa (Min)	ISO 37	9 min	9.8	10.6
3	Elongation at Break%	ISO 37	125 min	190	255
4	Compression Test				
a	at 70°C for 24 hrs.	ISO 815	20 % max	14.5	15.5
b	at 23°C for 72 hrs.		15 % max	10.5	11.6
c	-10°C for 72 hrs.		60 % max	25.6	28.1
5	Ageing at 70°C for 168 hrs.	ISO 188			
a	Change in Hardness	ISO 48	-5 to +8	+2	+3
b	Change in Tensile strength % (Max)	ISO 37	-20%	-10.2	-9.7
c	Change in Elongation at break	ISO 37	-40 to +10%	-14.1	-10.4
6	Water immersion change in volume at 70°C for 168 hrs.	ISO 1817	-1 to +8%	+3.19	+3.65
7	Stress Relaxation for 7 days at 23°C	ISO 3384	17% max	12.0	12.7
8	Ozone resistance 48 hrs./50 pphm ozone at 40°C.	ISO 1431-1	No cracking when viewed without magnification	No Cracks	

Remark: The above values conform IS: 5382:2018, BSEN-681-1 & ISO: 4633 of Hardness Class-80 compound.

For, Holdwell Components Pvt. Ltd.



Q.C. In-Charge



Approval Number 2303506
Test Report: MAT/LAB 310A, 312A rev.1 & J-00370665



Water Regulations Approval Scheme Ltd.
Unit 13,
Willow Road,
Pen y Fan Industrial Estate,
Orumlin,
Gwent,
NP11 4EG

22nd December 2022

Holdwell Components Private Ltd.
Plot No. 64-A, Sector-C,
Urfa Industrial Area,
Raipur,
Chhattisgarh
India
492003

**WATER REGULATIONS APPROVAL SCHEME LTD. (WRAS)
MATERIAL APPROVAL**

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6920-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

RUBBERS- ETHYLENE PROPYLENE DIENE MONOMER (EPDM) - MATERIAL ONLY.

5365

'HW-EPDM', Black coloured, compression moulded EPDM sheet materials.

Shore hardness 50, 60, 70 and 80. Tested in-radius size 1.0mm.

The 50 shore hardness material is for use with water up to 65°C.

The 60, 70 & 80 shore hardness materials are for use with water up to 60°C.

APPROVAL NUMBER: 2303506

APPROVAL HOLDER: HOLDWELL COMPONENTS PRIVATE LTD.

This is a re-approval of 1802507 which is valid between February 2018 and January 2023.

The Scheme reserves the right to review approval.

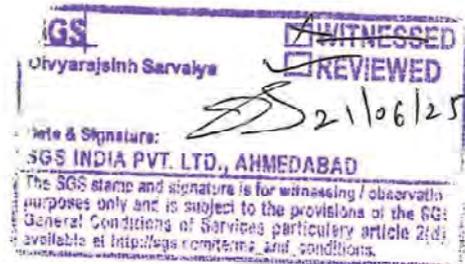
Approval 2303506 is valid between March 2023 and March 2028

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, "Materials which have passed full tests of effect on water quality".

The Directory may be found at: www.wrasapprovals.co.uk/approvals-directory/

Yours Faithfully

Ian Hughes
WRAS Approvals Manager



Annexure - IV

Zinc-Al COATING MASS REPORT

Inspection agency : SGS India Pvt. Ltd.
Coupon Material : Plastic token
Coupon Size : 500 X 50mm
Area (A) : 0.025m²
Correction factor (C) : 1.2
Requirement : As per BSEN 545:2010, Minimum of 400 gms/m² (For DN400/C30 Blue epoxy pipes)

Sl. No.	Date	Batch No.	Size/ Class	Weight of coupon		Mass of Zinc-Al Deposited On Coupon	Mass of Zinc -Al Deposited on coupon /sq mtr	Mass of Zinc -Al Deposited on pipe(M)	Remarks
				Before Coating	After Coating				
				M1(gms)	M2(gms)	(M2-M1)gms	$\frac{=(M2-M1)}{A}$ gms/m ²	$\frac{=C(M2-M1)}{A}$ gms/m ²	
1	15-06-2025	1SF	400C30 Blue Epoxy	10.35	19.57	9.22	368.80	442.56	OK

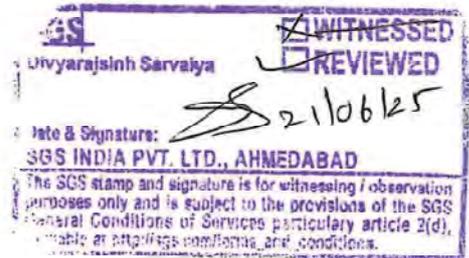
Conclusion : Inspection done as per BSEN 545:2010 and found satisfactory.

For, Welspun DI Pipes Ltd.

For, SGS India Pvt. Ltd.



Mr. Darsan Bambhaniya
 Quality Assurance



Annexure - V

Hydrostatic Pressure Test Declaration

This is to certify that the centrifugally cast (Spun) Ductile iron pipes having Push-on Flexible Joint of Class C30 as per BSEN 545:2010 detailed below were manufactured by Welspun DI Pipes Limited, at our Anjar works and 100% pipes were hydrostatically tested and no leakage or sweating were observed.

Hydrostatic Test pressure as per BSEN 545-2010 :

Size/Class (DN)	Test pressure (Bar)
DN400/C30	30

Holding time for hydrostatic test : 10 Sec

Sl.No	Size/Class	Batch No.	Length (Mtrs.)	Quantity (Nos.)	Remarks
1	400C30 Blue Epoxy	15F	5.5	14	OK

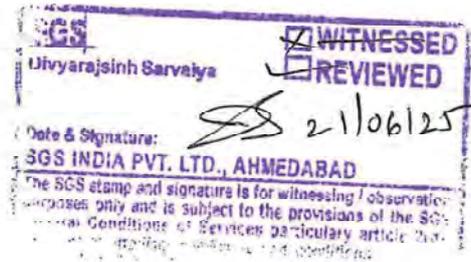
Conclusion : Inspection done as per BSEN 545:2010 and found satisfactory.

For, Welspun DI Pipes Ltd.

For, SGS India Pvt. Ltd.



Mr. Darsan Bambhaniya
Quality Assurance





KOTHARI METSOL PVT. LTD.

Formerly Khosla Engineering Pvt. Ltd.
An ISO 9001 : 2015 & 14001:2015 Certified Company
Email:- laboratory@khoslaengineering.com

TEST CERTIFICATE

CIN:U27104PN1962PTC012372
KMPL/TC No.: 03/24-25

DATE :- 01.02.2025

CUSTOMER NAME	WELSPUN DI PIPE LTD. SURVEY NO. 615 TO 619, 632,633 & 634, WELSPUN CITY, VILLAGE- VERSAMEDI, ANJAR, KACHCHH-370110		P.O. NO.:- 2481212665 Date:- 24.01.2025
NAME OF PRODUCT	85/15(Zn/Al)'KHOSLA' Make Deluxe Quality Wire	BATCH NO.	25/105
INSPECTION DATE	01.02.2025	INVOICE NO.	003956
REQUIRED SIZE	4.00mm Dia. (+0.00 to -0.07mm)	INVOICE DATE	01.02.2025
INSPECTED BY	RAZ & SKR-II	QTY.	1200.00KG
INSPECTION RESULT:-			
SURFACE	1. Clear, No oil or dust etc. 2. Smooth. No crack etc.		 <input checked="" type="checkbox"/> WITNESSED <input checked="" type="checkbox"/> REVIEWED Uvyarajsinh Sarvalya Date & Signature: <i>[Signature]</i> 21/06/25 SGS INDIA PVT. LTD., AHMEDABAD <small>The SGS stamp and signature is for witnessing / observation purposes only and is subject to the provisions of the SGS General Conditions of Services particularly article 2(e), available at http://sgs.com/terms_and_conditions.</small>
APPEARANCE	Bright and shiny.		
ACTUAL SIZE	Dia. 3.94 to 3.96mm.		
We Confirm that the % of Aluminum and impurities are within limits, and the maximum percentages are given.	Element	% of Element	Purity is as per EN ISO 14919:2015
	Silicon:	0.120% (Max)	
	Iron:	0.020% (Max)	
	Cadmium	0.004% (Max)	
	Tin	0.001% (Max)	
	Copper:	0.010% (Max)	
	Lead:	0.007% (Max)	
	Zinc:	Remainder	
Aluminum	15 % (±1)		
PHYSICAL PROPERTIES :			
This Batch are Tested in our Laboratory and results are	ELONGATION: (in %)	100-120 %	
	U.T.S: (in N/mm ²)	110-130 N/mm ²	

Sampal
PREPARED BY:



Checked And Found Ok
Date ... 05-02-2025
Sign. ... *[Signature]*
Name ... *[Signature]*

[Signature]
APPROVED BY:

QA/408

Approval Number 2310550
Test Report: J-00465869



11th March 2024

Welspun DI Pipes Limited
Survey No. 615-619, 632-634 & 650, Welspun City,
Versamedi Village,
Taluka Anjar,
Kutch Anjar,
Kachchh,
Gujarat,
370110,
India

Water Regulations Approval Scheme Ltd.
Unit 13,
Willow Road,
Pen y Fan Industrial Estate,
Crumlin,
Gwent,
NP11 4EG

WATER REGULATIONS APPROVAL SCHEME LTD. (WRAS)
MATERIAL APPROVAL

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6920-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

COATINGS, PAINTS & LININGS- FACTORY APPLIED PIPE & FITTINGS COATINGS.

5030

'Welmortar-BFS'. Factory applied, grey coloured cement mortar.

Mix sand:cement:water in a 3:2:1 weight ratio and apply as per manufacturer's SOP document 'WDIPL/QA/WI/14B', revision '01', dated '08.02.2023'. Cure for 28 days@30°C.

For use with water up to 65°C.

This material is only approved for the mixing and curing conditions that appear on the approval. If the mixing and/or curing conditions are varied from those specified on the approval then the material is not covered by the scope of the approval.

APPROVAL NUMBER: 2310550

APPROVAL HOLDER: WELSPUN DI PIPES LIMITED

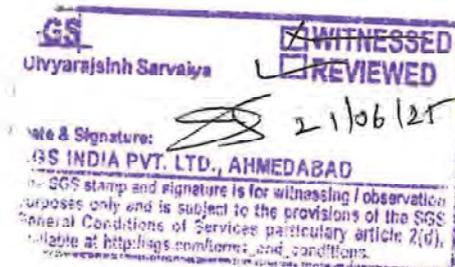
The Scheme reserves the right to review approval.
Approval 2310550 is valid between October 2023 and October 2028

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, "Materials which have passed full tests of effect on water quality".

The Directory may be found at: www.wrasapprovals.co.uk/approvals-directory/

Yours Faithfully

Ian Hughes
WRAS Approvals Manager





CHANDA PAINTS

P C CHANDA & CO (P) LTD

(An ISO 9001:2015 Certified Company)

K - 2, Kalyani Industrial Groth Centre, Phase - 1, P.O. Gayeshpur
Kalyani - 741 234, Dist - Nadia, West Bengal, INDIA

INTERNAL TEST REPORT

1	PRODUCT	::	Edelpoxy FN 132 - 2 Pack(150 Micron)
2	BATCH NO. & DATE OF BASE	::	08340225 Dt.05.02.2025
	BATCH NO. & DATE OF HARDENER	::	08340225A Dt.06.02.2025
3	MIXING RATIO / BY VOLUME	::	Base - 3 Part : Hardener - 1 Part
4	SPECIFIC GRAVITY	::	(a) Base - 1.48 (b) Hardener - 1.18 (c.) Mixed Paint - 1.41
5	FINENESS OF PIGMENT	::	7+ By H.G.
6	SETTLING	::	No Settling.
7	CONSISTENCY OF MIXED PRODUCT	::	Smooth & Uniform .
8	APPLICATION PROPERTIES BY SPRAY (Conventional Method)	::	Satisfactory
9	DRYING TIME		
	a) Touch Dry	::	In 3 hrs. 40 minutes
	b) Hard Dry	::	17 hrs 50 minutes.
10	FULL CURING TIME	::	7 Days
11	HARDNESS	::	Satisfactory
12	D.F.T.	::	(148 to 155) Micron.
13	GLOSS	::	Semiglossy to Eggshell.
14	SHADE	::	Blue (RAL - 5019)
15	POT LIFE	::	5 hrs 40 minutes
16	SHELF LIFE	::	9 months from the date of manufacturing

N.B: Induction Time - after mixing as mentioned above, allow 5 - 10 minutes before application for chemical reaction.

The above information is true to the best of our knowledge while tested in our Laboratory.



Q.C. DEPARTMENT



PRODUCTION IN-CHARGE



Approval Number: 2011523
Test Report: M107066



18th November 2020

PC Chanda & Co. PVT Ltd.
Flavi Auto House
103 Park Street,
6th Floor,
Kolkata 700016,
India

Water Regulations Advisory Scheme Ltd.
Unit 13,
Willow Road,
Pen y Fan Industrial Estate,
Drumlin,
Gweril,
NP11 4EG

WATER REGULATIONS ADVISORY SCHEME LTD. (WRAS)
MATERIAL APPROVAL

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6920-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

COATINGS, PAINTS & LININGS - FACTORY APPLIED PIPE & FITTINGS COATINGS.

5030

'EDELPOXY FN 132 Blue'. Factory applied, blue coloured epoxy coating. Apply as per manufacturer's IFU reference 'PC 132' dated 'January 26, 2020'. Cure for 7 days@30°C. For use with water up to 85°C.

This material is only approved for the curing conditions that appear on the approval. If the cure conditions are varied from those specified on the approval then the material is not covered by the scope of the approval.

APPROVAL NUMBER: 2011523
APPROVAL HOLDER: PC CHANDA & CO. PVT LTD.

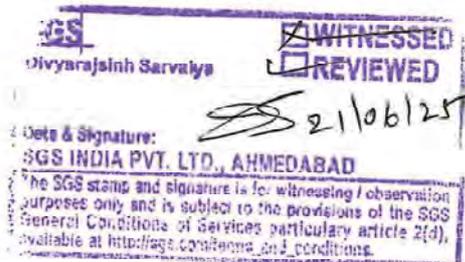
The Scheme reserves the right to review approval.
Approval 2011523 is valid between November 2020 and November 2025

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, "Materials which have passed full tests of effect on water quality".

The Directory may be found at: www.wras.co.uk/directory

Yours faithfully

Jason Furnival
Approvals & Enquiries Manager
Water Regulations Advisory Scheme



Calibration Summary of Instrument / Equipment used for Inspection

SL. NO	Instrument Name & Identification No.	Range of calibration (suitability)	Calibration Date	Calibration due Date	Calibrated By	Calibration Traceable to National / International standard
1	Universal Testing Machine (UTM) WDIQC/UTM	0.003 KN & 0 - 50KN	26-07-2024	25-07-2025	FS Calibration & Technologies LLP	NABL
2	Brinell Hardness Testing Machine WDIQC/BH-01	0-3000kgf	26-07-2024	25-07-2025	FS Calibration & Technologies LLP	NABL
3	Coatmeter (with probe) WDIQC/CTG-25 (F1240527)	01 μ m / (0-999 μ m) & 0.01mm / (0-12mm)	05-10-2024	04-10-2025	Yor Lab.	NABL
4	Ultrasonic Thickness Gauge WDIQC/UTG-34	0.1mm / 1 mm to 300 mm	05-10-2024	04-10-2025	Yor Lab.	NABL
5	Circumferential Tape WDIQC/PT-48	0.01mm / 300 - 600mm	06-05-2025	05-05-2026	Yor Lab.	NABL
6	Vernier Caliper WDIQC/VC-09	0.02mm / 0-150mm	06-10-2024	05-10-2025	Yor Lab.	NABL
7	Vernier Caliper (Digimatic) WDIQC/VC-19	0.01mm / 0-150mm	06-05-2025	05-05-2026	Yor Lab.	NABL
8	Vernier Caliper WDIQC/VC-15	0.02mm / 0-2000mm	06-05-2025	05-05-2026	Yor Lab.	NABL
9	Steel Rule WDIQC/SS-02	1mm / 0 - 150mm	06-05-2025	05-05-2026	Yor Lab.	NABL
10	Steel Rule WDIQC/SS-01	1mm / 0 - 600mm	06-05-2025	05-05-2026	Accutrace Laboratory LLP	NABL
11	Measuring Tape WDIQC/ST-02	1mm / 0 - 10000mm	05-10-2024	04-10-2025	Yor Lab.	NABL
12	Pipe straightness checking system (Thread and nut arrangement with vernier calliper.)	0.01mm/0-150mm (Vernier calliper, Digital)	06-10-2024	05-10-2025	Yor Lab.	NABL



WITNESSED
 REVIEWED

Vivaraajsinh Sarvalya

Date & Signature:

SGS INDIA PVT. LTD., AHMEDABAD

The SGS stamp and signature is for witnessing / observation purposes only and is subject to the provisions of the SGS General Conditions of Services particularly article 2(d), available at <http://www.sgs.com> and conditions.

21/06/25

ANEXO VI

TEST REPORT

ULR-TC546024000039964F
Test Report No. BLR/F(C/M)/24/039553
Dated 2024-09-28



Issued to : WELSPUN DI PIPES LIMITED
Welspun City, Sy. No. 633,
Versamedi Village
Taluka- Anjar,
Kachchh, Gujarat,
India - 370110.

Attention : Mr. Prabhumoy Datta,
Customer Ref. No. : Letter,
Sample Particulars
Sample Name : CML Water
Sample No. : BLR/F(C/M)/24/039553
Batch No. / Lot No. / Mfg. Date / Best Before Date : Not Available
Sample Package / Quantity : Plastic Container : 5 Ltrs X 03 Number's + Sterile Plastic Container : 4.5 Ltr X 1 Number + Sterile Plastic Container : 500ml X 1 Number
Sampled by : Representative of TÜV SÜD South Asia Pvt Ltd (Mr. Susanth Kumar Ghosh)
@ CML Process (Cold Zone) Area | M/s. Welspun Di Pipes Limited., Welspun City, Versamedi Village, Taluka Anjar, Kutch, Gujarat, India – 370110. Sampling Date & Time : 11.09.2024 & 10:00 am to 11:00 am
Sampling Location :
Sampling Protocol : Lab_P_SOP_123
Sample Condition : Good
Date of Sample Receipt : 2024-09-14
Date of Analysis : 2024-09-16
Date of Completion : 2024-09-27



Report Reviewed By

James Dsouza

Report Reviewer

By accepting this document the customer hereby agrees and accepts the 'Terms & Conditions' and the relevant 'Testing & Certification Regulations' of TÜV SÜD South Asia Pvt. Ltd. which are available at Company's website at the link- <https://www.tuvsud.com/en-in/terms-and-conditions>

Note: For any technical query, please contact . V G Ramesh at Ramesh.Vg@tuvsud.com and for any complaint please contact .Arun George at arun.george@tuvsud.com

Note : (1) The results relate only to the items tested, (2) the test report shall not be reproduced except in full without the written approval of the laboratory, (3) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable for the evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (4) For details of the accredited scope, please contact laboratory or accreditation body website.(5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

Laboratory:
TÜV SÜD South Asia Pvt. Ltd.
No. A 151, 2nd C Main, 2nd
Stage,
Peenya Industrial Estate,
Bangalore,
Karnataka - 560058

Phone :+91 80 67458096
Fax :+91 80 67458058
E-Mail
:Prajesh.Balakrishnan@tuvsud.com
Url :www.tuv-sud.in
ControlNo15360250.140924.121

Regd. Office:
TUV SUD South Asia Pvt. Ltd. Off
Saki Vihar Road, Saki naka,
Andheri (East), Mumbai-400072
India

TEST REPORT

ULR-TC546024000039964F
 Test Report No. BLR/F(C/M)/24/039553
 Dated 2024-09-28



TEST RESULTS

Test Results – Accredited Parameters

S. No.	Parameters	Results	Specification as per 2020-2184	Protocol
PART # A				
MICROBIOLOGICAL PARAMETERS				
1	E. coli	Absent	0 / 100 ml	ISO 9308 - 1 : 2014
2	Coliforms	Absent	0 / 100 ml	ISO 9308 - 1 : 2014
3	Faecal Enterococci	Absent	0 / 100 ml	ISO 7899 - 2 : 2000
4	Colony Count @ 22 deg C	< 1	No abnormal Change, cfu/ml	ISO 6222 : 1999
5	Clostridium perfringens	Absent	0 / 100 ml	ISO 14189 : 2013
6	Somatic Coliphages, /100 ml	Absent	50.0, PFU	[Part A of Annex II, EN ISO 10705-2]
PART # B				
CHEMICAL PARAMETERS				
1	Acrylamide, µg/l	Not Detected (LOQ : 0.1)	Max 0.10	Lab_P_SOP_279: 2021
2	Antimony, µg/l	BLQ (LOQ : 1.25)	Max 10.0	Lab_P_SOP_316: 2021
3	Arsenic, µg/l	BLQ (LOQ : 0.2)	Max 10.0	Lab_P_SOP_316: 2021
4	Benzene, µg/l	Not Detected (LOQ : 0.25)	Max 1.0	Lab_P_SOP_280: 2021
5	Benzo (a) Pyrene, µg/l	Not Detected (LOQ : 0.01)	Max 0.01	Lab_P_SOP_47: 2019
6	Boron, mg / l	0.25	Max 1.5	Lab_P_SOP_316 : 2021
7	Bromate, µg/l	BLQ (LOQ : 10.0)	Max 10.0	ISO 15061: 2001
8	Chromium µg/l	BLQ (LOQ : 1.0)	Max 25.0	Lab_P_SOP_316 : 2021
9	Cadmium, µg/l	BLQ (LOQ : 0.5)	Max 5.0	Lab_P_SOP_316 : 2021
10	Copper, mg / l	BLQ (LOQ : 0.01)	Max 2.0	Lab_P_SOP_316 : 2021
11	Cyanide, µg/l	Not Detected (DL : 50.0)	Max 50.0	IS 3025 (Part 27/Sec 1): 2021
12	1, 2 – Dichloroethane, µg/l	Not Detected (LOQ : 0.75)	Max 3.0	Lab_P_SOP_280 : 2021
13	Epichlorohydrin, µg/l	Not Detected (LOQ : 0.05)	Max 0.1	Lab_P_SOP_280 : 2021
14	Fluoride, mg / l	< 0.1	Max 1.5	IS 3025 (Part 60): 2008
15	Chlorite, mg / l	< 0.1	Max 0.25	4110 B, APHA 24th Edition: 2023

Laboratory:
 TUV SUD South Asia Pvt. Ltd.
 No. A 151, 2nd C Main, 2nd
 Stage,
 Peenya Industrial Estate,
 Bangalore,
 Karnataka - 560058

Phone :+91 80 67458096
 Fax :+91 80 67458058
 E-Mail
 :Prajesh.Balakrishnan@tuvsud.com
 Url :www.tuv-sud.in
 ControlNo15360250.140924.121

Regd. Office:
 TUV SUD South Asia Pvt. Ltd. Off Saki
 Vihar Road, Saki naka, Andheri (East),
 Mumbai-400072, India



TEST REPORT

ULR-TC546024000039964F
 Test Report No. BLR/F(C/M)/24/039553
 Dated 2024-09-28



TC-5460

S. No.	Parameters	Results	Specification as per 2020-2184	Protocol
16	Lead, µg/l	BLQ (LOQ : 2.0)	Max 5.0	Lab_P_SOP_316 : 2021
17	Mercury, µg/l	BLQ (LOQ : 0.3)	Max 1.0	Lab_P_SOP_316 : 2021
18	Uranium, µg/l	BLQ (LOQ : 3.0)	Max 30.0	Lab_P_SOP_316 : 2021
19	Nickel, µg/l	BLQ (LOQ : 2.0)	Max 20.0	Lab_P_SOP_316 : 2021
20	Nitrates, mg / l	3.9	Max 50.0	4500 B, APHA 24 th Edition
21	Nitrites, mg / l	< 0.1	Max 0.5	APHA 23rd Edition 4500 NO2 - B: 2017
22	Pesticides			
A	Organochlorine Group :			
	Aldrin, µg/l	Not Detected (LOQ : 0.01)	Max 0.03	Lab_P_SOP_47 : 2019
	Chlordane, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Dieldrin, µg/l	Not Detected (LOQ : 0.01)	Max 0.03	Lab_P_SOP_47 : 2019
	Endosulphan (Alpha) , µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Endosulphan (Beta) , µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Endrin, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Heptachlor, µg/l	Not Detected (LOQ : 0.01)	Max 0.03	Lab_P_SOP_47 : 2019
	O, P – DDT, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	O, P – DDE, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	O, P – DDD, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	P, P – DDT, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	P, P – DDE, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	P, P – DDD, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	2, 4 – D, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	HeptaChlor Epoxide, µg/l	Not Detected (LOQ : 0.01)	Max 0.03	Lab_P_SOP_47 : 2019
	Alpha - HCH, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Beta - HCH, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Gamma - HCH, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Delta - HCH, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Endosulfan Sulfate, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
B	Organophosphate Group :			
	Malathion, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Parathion Methyl, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Monocrotophos, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Chlorpyrifos, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Phorate, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Phorate Sulfoxide, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Phorate Sulfone, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Methyl Paraxon, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019

Laboratory:
 TÜV SÜD South Asia Pvt. Ltd.
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 Vihar Road, Saki naka, Andheri (East),
 Mumbai-400072, India



TEST REPORT

ULR-TC546024000039964F
 Test Report No. BLR/F(C/M)/24/039553
 Dated 2024-09-28



TC-5460

S. No.	Parameters	Results	Specification as per 2020-2184	Protocol
	Malaxon, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Ethion, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
C	Others :			
	Butachlor, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Alachlor, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Atrazine, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Iso Proturon, µg/l	Not Detected (LOQ : 0.01)	Max 0.1	Lab_P_SOP_47 : 2019
	Total Pesticide			
	Total Pesticide Residues, µg/l	Not Detected (LOQ : 0.01)	Max 0.5	Lab_P_SOP_47 : 2019
23	Polycyclic Aromatic Hydrocarbons :			
	Poly Aromatic Hydrocarbons (as PAH) , µg / l	Not Detected (LOQ : 0.01)	Max 0.10	Lab_P_SOP_47 : 2019
	Benzo (b) Fluoranthene, µg / l	Not Detected (LOQ : 0.01)	Max 0.10	Lab_P_SOP_47 : 2019
	Benzo (k) Fluoranthene, µg / l	Not Detected (LOQ : 0.01)	Max 0.10	Lab_P_SOP_47 : 2019
	Benzo (ghi) Perylene, µg / l	Not Detected (LOQ : 0.01)	Max 0.10	Lab_P_SOP_47 : 2019
	Indeno (1, 2, 3 - cd) Pyrene, µg / l	Not Detected (LOQ : 0.01)	Max 0.10	Lab_P_SOP_47 : 2019
24	Selenium, µg / l	BLQ (LOQ : 1.0)	Max 20.0	Lab_P_SOP_316 : 2021
25	Tetrachloroethene, µg/l	Not Detected (LOQ : 1.25)	Max 10.0	Lab_P_SOP_280 : 2021
26	Trichloroethene, µg/l	Not Detected (LOQ : 1.25)		
27	Vinyl Chloride, µg/l	Not Detected (LOQ : 0.25)	Max 0.5	Lab_P_SOP_280 : 2021
	Trihalomethanes - total			
28	Dibromochloromethane, µg/l	Not Detected (LOQ : 6.25)	Max 100.0	Lab_P_SOP_280 : 2021
29	Bromodichloromethane, µg/l	Not Detected (LOQ : 6.25)		
30	Chloroform, µg/l	Not Detected (LOQ : 6.25)		
31	Bromoform, µg/l	Not Detected (LOQ : 6.25)		
PART # C				
INDICATOR PARAMETERS				
1	Aluminium µg/l	BLQ (LOQ : 10.0)	Max 200.0	Lab_P_SOP_316 : 2021
2	Ammonium, mg / l	< 0.5	Max 0.5	IS 3025 (Part 34): 1988
3	Chlorides, mg / l	38.7	Max 250.0	IS 3025 (Part 32): 1988
4	Colour, Hazen Units	Acceptable	Acceptable to consumers and no abnormal Change	IS: 3025 (PART 4): 2021

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TC-5460

S. No.	Parameters	Results	Specification as per 2020-2184	Protocol
5	Conductivity @ 20 deg C, $\mu\text{S} / \text{cm}$	222.0	Max 2500.0	2510 B, APHA 24 th Edition
6	Hydrogen Ion Concentration	7.7	≥ 6.5 and ≤ 9.5	IS 3025 (Part 11): 2022
7	Iron, $\mu\text{g}/\text{l}$	BLQ (LOQ : 15.0)	Max 200.0	Lab_P_SOP_316 : 2021
8	Manganese, $\mu\text{g}/\text{l}$	BLQ (LOQ : 1.0)	Max 50.0	Lab_P_SOP_316 : 2021
9	Odour	Acceptable	Acceptable to consumers and no abnormal Change	IS: 3025 (PART 5): 2018
10	Sulphate, mg / l	41.0	Max 250.0	IS 3025 (Part 24/Sec 1): 2022
11	Sodium, mg / l	16.04	Max 200.0	Lab_P_SOP_316 : 2021
12	Taste	Acceptable	Acceptable to consumers and no abnormal Change	2160 C, APHA 24 th Edition
13	Turbidity, NTU	Acceptable	Acceptable to consumers and no abnormal Change	IS 3025 (Part 10): 1984
14	Oxidisability, mg / l of O ₂	< 5.0	Max 5.0	5220 B, APHA 24 th Edition

TEST REPORT

Test Report No. BLR/F(C/M)/24/039553
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Test Results – Non-accredited Parameters

S. No.	Parameters	Results	Specification as per 2020-2184	Protocol
15#	PFAS Total, µg/l	Not Detected (LOQ : 0.1)	Max 0.5	LC-MS/MS
16#	Bisphenol A, µg/l	Not Detected (LOQ : 2.5)	Max 2.5	EN 14372 - 2004
17	Chlorate, mg / l	Not Detected (LOQ : 0.01)	Max 0.25	Lab_P_SOP_406
18	Total Organic Carbon (TOC), mg / l	Not Detected (DL : 0.1)	No abnormal Change	Lab_P_SOP_166
19#	Sum of PFAS			
	Perfluorobutanoic acid (PFBA), µg/l	Not Detected (LOQ : 0.1)	Max 0.1	LC-MS/MS
	Perfluoropentanoic acid (PFPA), µg/l	Not Detected (LOQ : 0.1)		
	Perfluoroheptanoic acid (PFHxA), µg/l	Not Detected (LOQ : 0.1)		
	Perfluoroheptanoic acid (PFHpA), µg/l	Not Detected (LOQ : 0.1)		
	Perfluorooctanoic acid (PFOA), µg/l	Not Detected (LOQ : 0.1)		
	Perfluorononanoic acid (PFNA), µg/l	Not Detected (LOQ : 0.1)		
	Perfluorodecanoic acid (PFDA), µg/l	Not Detected (LOQ : 0.1)		
	Perfluoroundecanoic acid (PFUnDA), µg/l	Not Detected (LOQ : 0.1)		
	Perfluorododecanoic acid (PFDoDA), µg/l	Not Detected (LOQ : 0.1)		
	Perfluorotridecanoic acid (PFTrDA), µg/l	Not Detected (LOQ : 0.1)		
	Perfluorobutane sulfonic acid (PFBS), µg/l	Not Detected (LOQ : 0.1)		
	Perfluorohexane sulfonic acid (PFHxS), µg/l	Not Detected (LOQ : 0.1)		
	Perfluoroheptane sulfonic acid (PFHpS), µg/l	Not Detected (LOQ : 0.1)		
	Perfluorooctane sulfonic acid (PFOS), µg/l	Not Detected (LOQ : 0.1)		
	Perfluorodecane sulfonic acid (PFDS), µg/l	Not Detected (LOQ : 0.1)		
20	Halo acetic acids (HAAs) (Monochloro-, Dichloro-, and Trichloro-acetic acid, and mono - and Dibromo-acetic acid), µg/l	Not Detected (LOQ : 25.0)	Max 60.0	LC-MS/MS
21	Microcystin-LR, µg/l	Not Detected (LOQ : 1.0)	Max 1.0	LC-MS/MS
22	Alpha Emitters ##	BDL (MDA : 0.0054)	Max 0.1	IS : 14194 (P2) - 2013
	Beta Emitters ##	BDL (MDA : 0.02)	Max 1.0	IS : 14194 (P1) - 2013

TEST REPORT

Test Report No. BLR/F(C/M)/24/039553
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MICROBIOLOGICAL PARAMETERS				
S. No.	Parameters	Results	Specification as per 2020-2184	Protocol
22	Legionella, /0.1 ml	Absent	-	9260J, APHA 23rd Edition 2017

NOTE: Unless otherwise agreed upon, Pass or Fail or Statement of compliance verdicts are given based on the measured values without any considerations of measurement uncertainties. Every test method has a measurement uncertainty which has been evaluated by the laboratory and are available on request. By taking measurement uncertainties into account, it might happen that measured values can neither be assessed as Pass nor as Fail.

LOQ: Limit of Quantification; DL: Detection Limit; BDL: Below Detection Limit, BLQ: Below Limit of Quantification.

Remark: The sample conforms to Directive (EU) 2020/2184 Specification with respect to tested parameters only.

Tests subcontracted to other TUV SUD laboratory.

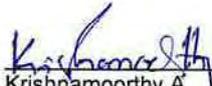
Tests subcontracted to ISO/IEC 17025 approved laboratory.

Authorized By

Authorized By

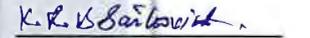
Authorized By

Authorized By


Krishnamoorthy A.
(Senior Analyst)


Subhajit Roy Chowdhury
(Senior Analyst)


Shanmugam G
(Lab Supervisor)


Saigovindan K R B
(Team Leader Microbiology)



- END OF TEST REPORT -

ANEXO VII

Madrid, 1 de Abril de 2025

Att. A quien corresponda.

Asunto: Declaración responsable según RD3/2023.

Declaración responsable de cumplimiento conforme al artículo 44 y la disposición transitoria única del Real Decreto 3/2023, de 10 de enero, por el que se establecen los criterios técnico-sanitarios de la calidad del agua de consumo, su control y suministro.

El fabricante WELSPUN EUROPE, S.A., con domicilio en C/ Juan Esplandiú, 11, Tercero, CP. 28007, Madrid, inscrito en el Registro Mercantil de Madrid, declara, bajo su responsabilidad, que el producto con referencia "Tubería de Fundición Dúctil según norma EN 544:2011 (EJ: DN XXX, WESPUNFLOW, N°/LETRA/AÑO), y cuyo uso previsto es ABASTECIMIENTO DE AGUA, cumple con los requisitos aplicables en el Real Decreto 3/2023, de 10 de enero, conforme al ANEXO I, donde se indican el listado de componentes y sus valores determinados que debe cumplir obligatoriamente este producto.

Madrid, 1 de abril de 2025.



J. Raúl Bartolomé

Director Comercial Welspun Europe, S.A.