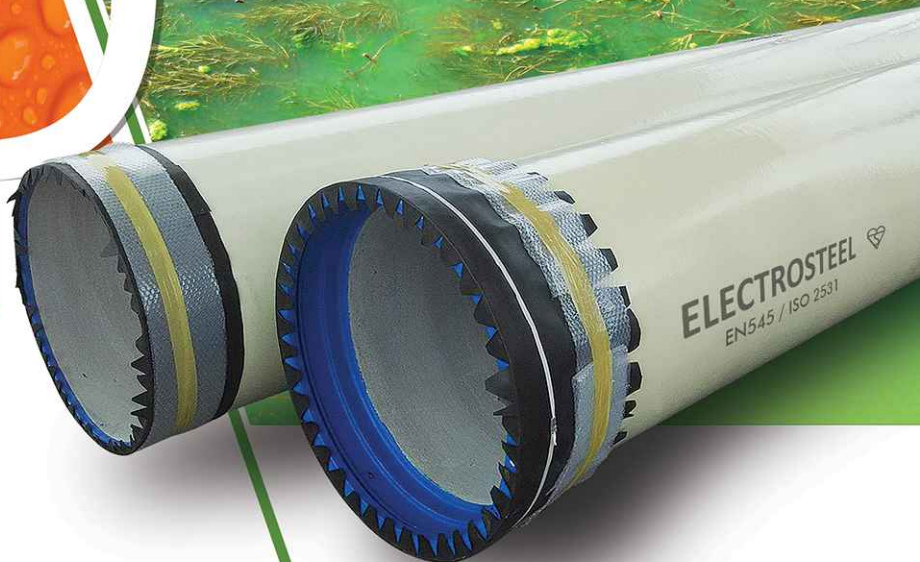


ELECTRO-PUC

ductile
iron pipe with

PUC

coating



Polyurethane Coating on Ductile Iron Pipes

External polyurethane coating (ELECTRO-PUC) applied on Ductile Iron pipes is one of the most durable pipe protection system offered by Electrosteel. It provides a thick and chemically inert barrier coating with exceptionally high abrasion and chemical resistance, ideally suited for water and wastewater applications in aggressive soil condition. This pipe in conjugation with FBE (Fusion bonded Epoxy) coated Ductile Iron fittings is available in the size range of 80-1200 mm. It is one of the best solution for highly corrosive external soil environment. It is also the best protection in saline soil, sea coast area, ground with chemical contamination, refuse sites, farmyard waste etc. It has a long-term performance history in water and sewage application. The coating is applied and tested in accordance with EN 15189.



Advantages

- Can be readily laid as it is supplied from factory
- High abrasion resistance
- Better resistance to external soil corrosion in aggressive soil
- More resistance to external chemical (acid, alkali & organic) attack
- Durable and provides high impact resistance
- Higher scratch resistance
- Good adherence with the pipe surface offering more durable coating
- Does not peel off in impact
- Resistant to coating damage
- Better looks and aesthetics
- Better service life
- Insulate DI Pipes against the effect of Stray Current

Coating Thickness

The standard Polyurethane coating thickness is minimum 700 micron as per EN15189.

Field of application for Polyurethane coating

| Soil Corrosivity | Typical Ground Conditions | ELECTRO-PUC Protection System |
|---|--|---|
| Highly Aggressive | Natural soils with resistivity below 500 ohm.cm without water table Natural soils with resistivity below 1500 ohm.cm with seasonal water table or permanent water logging. Natural soils containing coal, ironstone or shale with seasonal water table or permanent water logging. Natural soils with pH <5 Natural soils with pH range 5 <pH <6 with seasonal water table or permanent water logging. Made up ground with light chemical contamination e.g. refuse sites, farmyard waste. Presence of Stray electrical currents e.g. close proximity to cathodically protected pipeline and DC current systems. | Pipes with Polyurethane coating as per EN 15189 of minimum 700 micron thickness and Fittings with Fusion Bonded Epoxy (FBE) coating as per EN 14901 |
| Special conditions with high aggressivity | Made up ground containing clinker, coal, flints and other materials likely to cause mechanical damage with seasonal water table or permanent water logging. Made up ground with heavy chemical or acid contamination, e.g. disused gas plants, industrial sites, mine, chemical plants dumping ground etc. Tidal water e.g. estuaries, shorelines containing highly saline atmosphere. | Pipes with Polyurethane coating of minimum 1000 micron thickness and Fittings with Fusion Bonded Epoxy (FBE) coating as per EN 14901 |

Note : The above table is only for guidance.


Compatible fittings with PU coated pipes

All fittings are coated with Fusion bonded epoxy coating are compliant with the European standard EN:14901 "Epoxy Coatings for Ductile Iron fittings and accessories". The blue epoxy coating has an average thickness of at least 300 µm . Ideally suited for fittings in water and wastewater applications.


Note:- Any special thickness requirement higher or lower than given above can be provided as per request.



 **ELECTROSTEEL**
BSEN 545 / ISO 2531

ELECTRO-PUC pipes are used extensively in
Middle East, Africa & Europe. 

Establishments

DVGW type examination certificate
DVGW-Baumusterprüfzertifikat

CERT
DW-7801BP0330
Registration Number
Registrierungsnummer

Field of Application products of water supply
Anwendungsbereich Produkte der Wasserversorgung

Owner of Certificate Electrosteel Castings Limited
Zertifizierender G K Tower, 19 Camac Street, IND-700017 Calcutta

Distributor Electrosteel Castings Limited
Vertreiber G K Tower, 19 Camac Street, IND-700017 Calcutta

Product Category cast iron and steel pipes for water pipelines: Ductile iron pipes (7801)
Produktart

Product Description ductile iron pipes for the drinking water supply
Produktbezeichnung

Model Gusseisenrohr "ELECTROSTEEL" / "ELECTROFRESH"
Modell

Test Reports supplement test: 11 7415 15-02 from 03.06.2015 (MPG)
Prüfberichte mechanical test: 11 7415 14-01 (b) from 07.07.2014 (MPG)
mechanical test: 11 7415 12-01 from 10.02.2013 (MPG)
mechanical test: 11 7415 11 from 12.02.2012 (MPG)
KTW testing: K-245519-14-Ko from 07.07.2014 (WHY)

Test Basis DVGW GW 337-P (01.09.2010)
Prüfgrundlagen DIN EN 545 (01.09.2011)
DVGW W 347 (01.04.2006)
DVGW W 348 (01.09.2004)
BGA KTW (12.12.1985)
DVGW W 270 (01.11.2007)

Date of Expiry / File No. 27.06.2018 / 15-0301-WNR
Ablaufdatum / Aktenzeichen

| Type | Technical Data | Remarks |
|---------------------------------|--|-------------|
| Typ | Technische Daten | Bemerkungen |
| "ELECTROSTEEL" / "ELECTROFRESH" | Gusseisenrohr manufacturing group: DN 80 up to DN 1100 | |
| Type Variation | Explanations | |
| Ausführungsvarianten | Erläuterungen | |
| "TYT" | push-on joint, DN 80 - DN 1100 | |
| ELECTROLOCK | push-on joint restrained, DN 80 - DN 700 | |
| RJT / VE | push-on joint restrained, DN 80 - DN 1100 | |
| VI PLUS | push-on joint restrained, DN 80 - DN 600 | |
| FIXED FLANGE | Weid on Flange (LF), PN 10, PN 16, PN 25; DN 80 - DN 1100; PN 40; DN 80 - DN 600 | |

Hints of Utilization / Remarks
Verwendungshinweise / Bemerkungen

Pressure classes:
DN 80 - DN 300 pressure class: C40, C50, C64, C100
DN 350 - DN 600 pressure class: C30, C40, C50, C64, C100
DN 700 - DN 800 pressure class: C25, C30, C40, C50, C64
DN 900 - DN 1000 pressure class: C25, C30, C40, C50
DN 1100 pressure class: C20, C30, C40, C50



lining: cement mortar according to DIN EN 545
coatings: zinc coating with overlay according to DIN EN 545; zinc-aluminum alloy with overlay according to DIN EN 545
polyurethane coating according to DIN EN 15189

18.06.2015 Wg A-12
DVGW CERT GmbH is an accredited body by DAKKS according to EN 45011:1998 for certification of products for energy and water supply industry.

DVGW CERT GmbH ist ein von der DAKKS nach DIN EN 45011:1998 akkreditiertes Stelle für die Zertifizierung von Produkten für Energie- und Wasserversorgung.

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DVGW (Germany) certificate for PU coated DI pipes

DVGW type examination certificate
DVGW-Baumusterprüfzertifikat

CERT
DW-7705BP0329
Registration Number
Registrierungsnummer

Field of Application products of water supply
Anwendungsbereich Produkte der Wasserversorgung

Owner of Certificate Electrosteel Castings Limited
Zertifizierender G K Tower, 19 Camac Street, IND-700017 Calcutta

Distributor Electrosteel Castings Limited
Vertreiber G K Tower, 19 Camac Street, IND-700017 Calcutta

Product Category ductile iron pipe fittings: Ductile iron fittings (7705)
Produktart

Product Description ductile iron fittings for the drinking water supply
Produktbezeichnung

Model Gusseisenformstücke "ELECTROSTEEL"
Modell

Test Reports mechanical test: 11 7415 14-01 (b) from 07.07.2014 (MPG)
Prüfberichte mechanical test: 11 7415 12-01 from 12.02.2013 (MPG)
mechanical test: 11 7415 11 from 12.02.2012 (MPG)
KTW testing: K-245519-14-Ko from 07.07.2014 (WHY)
hygienic testing: W-247640e-14-Si from 28.08.2014 (WHY)

Test Basis DVGW GW 337-P (01.09.2010)
Prüfgrundlagen DIN EN 545 (01.09.2011)
DVGW W 347 (01.04.2006)
DVGW W 348 (01.09.2004)
BGA KTW (12.12.1985)
DVGW W 270 (01.11.2007)

| Type | Technical Data | Remarks |
|----------------|---------------------------|-------------|
| Typ | Technische Daten | Bemerkungen |
| "ELECTROSTEEL" | nominal diameter: DN 80 | |
| "ELECTROSTEEL" | nominal diameter: DN 100 | |
| "ELECTROSTEEL" | nominal diameter: DN 125 | |
| "ELECTROSTEEL" | nominal diameter: DN 150 | |
| "ELECTROSTEEL" | nominal diameter: DN 200 | |
| "ELECTROSTEEL" | nominal diameter: DN 250 | |
| "ELECTROSTEEL" | nominal diameter: DN 300 | |
| "ELECTROSTEEL" | nominal diameter: DN 350 | |
| "ELECTROSTEEL" | nominal diameter: DN 400 | |
| "ELECTROSTEEL" | nominal diameter: DN 450 | |
| "ELECTROSTEEL" | nominal diameter: DN 500 | |
| "ELECTROSTEEL" | nominal diameter: DN 600 | |
| "ELECTROSTEEL" | nominal diameter: DN 700 | |
| "ELECTROSTEEL" | nominal diameter: DN 800 | |
| "ELECTROSTEEL" | nominal diameter: DN 900 | |
| "ELECTROSTEEL" | nominal diameter: DN 1000 | |
| "ELECTROSTEEL" | nominal diameter: DN 1100 | |

Type Variation push-on joint, DN 80 - DN 1100
Ausführungsvarianten TYT push-on joint restrained, DN 80 - DN 700
ELECTROLOCK push-on joint restrained, DN 80 - DN 1100
RJT / VE push-on joint restrained, DN 80 - DN 600
VI PLUS mechanical joint, DN 80 - DN 1000
EMJ / EXPRESS cast or weld on flange (FC) PN 10, PN 16, PN 25; DN 80 - DN 1000; PN 40; DN 80 - DN 600
FIXED FLANGE rotatable flange (LF) PN 10, PN 16, PN 25; DN 80 - DN 600
LOOSE FLANGE

Hints of Utilization / Remarks
Verwendungshinweise / Bemerkungen

subject of this certificate are fittings according DIN EN 545
lining and coating:
internal and external coating: epoxy coating (FBE - Fusion Bonded Epoxy) according to DIN EN 545 and DIN EN 14901
internal coating: cement mortar lining according to DVGW W 347 and external coating: zinc rich paint followed by top coat according to DIN EN 545

Date of Expiry / File No. 27.06.2018 / 14-0457-WNA
Ablaufdatum / Aktenzeichen

24.06.2014 Wg A/12
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DVGW CERT GmbH ist ein von der DAKKS nach DIN EN 45011:1998 akkreditiertes Stelle für die Zertifizierung von Produkten für Energie- und Wasserversorgung.

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DVGW (Germany) certificate for FBE coated DI fittings

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