

# Kitemark™ Certificate

This is to certify that:

ESL Steel Limited  
(part of Vedanta Group)  
Village: Siyaljori, P.O - Jogidh  
OP - Bangaria, P.S - Chandankyari  
Dist.-Bokaro  
Jharkhand  
828 303  
India

Holds Certificate Number:

KM 636961

In respect of:

**BS EN 545**  
**Ductile iron pipes, fittings, accessories and their joints for water pipelines**

This issues the right and licence to use the Kitemark in accordance with the Kitemark Terms and Conditions governing the use of the Kitemark, as may be updated from time to time by BSI Assurance UK Ltd (the "Conditions"). All defined terms in this Certificate shall have the same meaning as in the Conditions.

The use of the Kitemark is authorized in respect of the Product(s) detailed on this Certificate provided at or from the above address.

For and on behalf of BSI:

Shahm Barhom, Group Product Certification Director

First Issued: 2016-04-22

Latest Issue: 2024-03-11

Effective Date: 2024-03-11

Expiry Date: 2027-02-28



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# Kitemark™ Certificate

No. KM 636961

## BS EN 545: 2010 - Ductile iron pipes, fittings, accessories and their joints for water pipelines

<b>Product:</b>	<b>Pipes</b> <b>Material:</b> Ductile iron (centrifugally cast) <b>Installation/use:</b> Above or below ground <b>External coating:</b> Zinc layer followed by: *1 Black Bitumen <b>Internal lining:</b> *2 Cement <b>Branded:</b> ESL									
Description	Nominal Size, DN/OD (mm)	Length (m)	Pressure rating							
			K9*3	C20	C25	C30	C40	C50	C64	C100
Socket and Spigot Pipes with push-in flexible joints	DN 100 – DN 250	5.5, 6.0	✓	-	-	-	✓	-	-	-
Socket and Spigot Pipes with push-in flexible joints	DN 300 – DN 600	5.5, 6.0	✓	-	-	✓	-	-	-	-
Socket and Spigot Pipes with push-in flexible joints	DN 700 – DN 1200	5.5, 6.0	✓	-	✓	-	-	-	-	-
Notes:  General note:	*1 External coatings in accordance with BS EN 545:2010 (clause 4.5.2) and BS EN 545:2006 (clause 4.4.2) and holding WRAS material approval. *2 Internal cement linings in accordance with BS EN 545:2010 (clause 4.5.3), BS EN 545:2006 (clause 4.4.3), BS EN 197-1 and holding WRAS material approval. *3 Denotes class K9 as per BS EN 545:2006. Only products denoted by a '✓' are covered for the specific pressure rating stated. It should also be noted that the relevant C class (as per BS EN 545:2010) has been achieved on the wall thicknesses (including permitted deviations) as specified for K9 pipe within BS EN 545:2006.									

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 To check its validity telephone +44 (0) 345 080 9000. An electronic certificate can be authenticated [online](#).

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No. KM 636961

## BS EN 545: 2010 - Ductile iron pipes, fittings, accessories and their joints for water pipelines

<b>Product:</b>	<b>Pipes</b> <b>Material:</b> Ductile iron (centrifugally cast) <b>Installation/use:</b> Above or below ground <b>External coating:</b> Zinc layer followed by: *1 Black Bitumen <b>Internal lining:</b> *2 Cement <b>Branded:</b> ESL			
<b>Description</b>	<b>Nominal Size, DN/OD (mm)</b>	<b>Length (m)</b>	<b>Pressure rating</b>	
Socket and Spigot Pipes with restrained flexible joints	DN 1100 - 1200	5.5, 6.0	<b>K9</b> <sup>*3</sup>	<b>C16</b> <sup>*4</sup>
<b>Notes:</b>  <b>General note:</b>	*1 External coatings in accordance with BS EN 545:2010 (clause 4.5.2) and BS EN 545:2006 (clause 4.4.2) and holding WRAS material approval. *2 Internal cement linings in accordance with BS EN 545:2010 (clause 4.5.3), BS EN 545:2006 (clause 4.4.3), BS EN 197-1 and holding WRAS material approval. *3 Denotes class K9 as per BS EN 545:2006. *4 PFA value as declared by manufacturer for restrained type joint, limited to C16 Only products denoted by a '✓' are covered for the specific pressure rating stated. It should also be noted that the relevant C class (as per BS EN 545:2010) has been achieved on the wall thicknesses (including permitted deviations) as specified for K9 pipe within BS EN 545:2006.			

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