HBDD Directional Drilling Wrap-around Heat Shrink Sleeve

PRODUCT DATA SHEET

3-layer Girth Weld Field Joint Coating

DESCRIPTION

HBDD is suited to design requirement for use on girth weld joint corrosion protection is a competent solution for PE/FBE coated pipes used in directional drilling application

The HBDD system comprises of 3-layers.

The first layer: Liquid Epoxy RP09, solvent free two-component.

The second layer: High shear strength hot-melt copolymer adhesive.

The third layer: High performance fiberglass reinforced radiation cross-linked polyethylene backing, which gives the backing a greater wear resistance.

Extra protection: Wear cone of same construction of HBDD for the pull through forces

INSTALLATION

After surface preparation & Preheating, epoxy is applied and the HBDD sleeve is immediately wrapped around the joint over the wet epoxy. Heat is then applied to allow for the HSS to shrink and form a tight fit around the joint. During curing process, the epoxy forms a strong mechanical and chemical bond to the pipe surface and to the copolymer adhesive layer. The cross-linked outer layer forms a sturdy barrier against mechanical stress and damages, besides stopping moisture transmission. A wear cone is then applied over the leading-edge side of the joint/sleeve

FEATURE AND BENEFITS

- HBDD has high resistance to shear and peel force induced by Soil & Thermal movements : Provide sturdy and toughened coating system
- Wear cone protects leading edge of sleeve against pull-through forces : Guaranteed extra strength
- Sleeve applied over wet epoxy–there are no curing or waiting times/formation of strong mechanical & chemical bonds : Provide high performance
- Low preheat requirements. Makes installation fast and easy. Keeps installation costs low : Economical & Time saver

INSTALLATION

Description	PRP-DRepair Patch
Standard Reference	EN 12068 Class C 80HT UV, ISO 21809-3, DIN 30672, NACE.
Compatible line coatings	PE/FBE
Soil stress restriction	None
Max. operating temperature	85°C
Pre-heat temperature	60-80°C
Recommended pipe preparation	SA $2^{1/2}$

PRODUCT THICKNESS

Backing	Backing fully free recovered	Adhesive	Wear Cone (Inclusive Adhesive)
1.5 to 1.8mm	2.0 to 2..3 mm	1.2 to 1.5 mm	3.0 mm

STANDARD ORDERING OPTIONS

HBDD type products are available:

- As cut piece (pre-cut sleeve with separate Closure patch & Wear cone)
- As a roll (Closure patches & Wear cone to be ordered seprately)

Cut piece (Pre-Cut sleeve with separate closure patch & Wear cone)		Roll form (closure patch & Wear cone to be ordered separately)	
Example:	HBDD-12X18/3	Example:	HBDD-18 X100/3-RL
HBDD	Directional drilling wrap-around heat	**HBDD**	Directional drilling wrap-around heat shrinkable
	shrinkable sleeve		sleeve
12	Outside pipe diameter in inch	18	Roll width in inch
18	Sleeve width in inch	100	Roll length in feet
3	Sleeve thickness in mm	3	Roll thickness in mm
		-RL	Supplied in rolls

Sleeve cut lengths and appropriate closure patch widths depend on the pipe size and product construction, please consult with SNI representative and refer installation instruction. HBDD type products are installed with RP09 Epoxy primer, epoxy primers are ordered separately. For more ordering information please refer product data sheet.

CLOSURE PATCH

Example: CP-4X18		
4	Closure patch width in inches	4" (100 mm), 6" (150 mm), 8" (200 mm) 10" (250 mm)
18	Closure patch length in inches	16", 18", 20" 24"

WEAR CONE

Example: WC-4X12		
4	Wear Cone width in Inches	3" (80 mm), 4" (100 mm), 6" (150 mm), 8" (200 mm) , 10" (250 mm)
12	Outside Pipe diameter in inches.	

PRODUCT PROPERTIES

DESCRIPTION	TEST METHOD	TYPICAL VALUES
BACKING		
Bursting Strength	EN12068/ISO21809/DIN30672	2400 N
ADHESIVE		
Softening Point	ASTM E-28	>95 °C
Lap Shear	EN 12068	> 8 N/mm2 @ 23 °C
Lap Shear	EN 12068	> 1 N/mm2 @ 60 °C
INSTALLED SLEEVE		
Impact Resistance	EN 12068	Pass @ 30J
Indentation Resistance	EN 12068	2.32 mm @ 60 °C
Cathodic disbondment	EN 12068	< 1mm radius @ 60 °C ,30 days.
Peel strength to pipe surface	EN 12068	15 N/mm at 23 °C
Specific coating resistance	EN 12068	6X 10^9 ohm^2
Resistance to UV radiation followed by bursting strength	EN 12068	Reduction in bursting strength <25% of the original value

Note: The typical values in this data sheet are based on lab prepared samples. For project specific requirements please consult with SNI INDIA

STORAGE

Indoor, clean, dry away from direct sunlight in a cool place below +50°C

INSTALLATION

For proper installation and performance please refer our installation instruction

PERSONAL QUALIFICATION

Installation of the HBDD coating system should be carried out by SNI INDIA certified personnel

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