

DDX

Advanced girth-weld protection for pipes used in directionally drilled applications

Advanced Girth-Weld Protection For Pipes Used In Directionally Drilled Applications

The DDX™ - Directional Drilling Kit is a high performance system designed to protect welded joints on PP, PE and FBE coated pipelines in directional drilling applications. This system offers unmatched installation simplicity while delivering exceptional protection at the joints during and after the tough conditions associated with HDD activities.

Layers of Protection

- Force-cured epoxy is applied directly to steel for maximum corrosion protection
- Primary sleeve composed of high shear strength adhesive and HDPE heat shrinkable backing provides both corrosion and mechanical protection across the joints.
- The secondary sleeve provides additional mechanical protection to the leading edge of the primary sleeve during pull-through operations

Gouge and Abrasion Resistance

- Designed to mitigate the effect of forces associated with directional drilling
- Highly resistant to the effects of soil stresses and pipe movements

Performance Meets Productivity

- Low preheat temperatures and straightforward application steps reduce cycle times and improve productivity
- Simple and forgiving installation results in improved reliability and quality of every joint

SLEEVE OPERATING CHARACTERISTICS	TEST METHOD	TYPICAL VALUES
Pipeline Operating Temp.		Up to 70°C (158°F)
Minimum Installation Temp.		70°C (158°F)*
Main Line Coating Compatibility		PE, PP & FBE
Adhesive Properties		
Softening Point	ASTM E28	100°C

SLEEVE OPERATING CHARACTERISTICS	TEST METHOD	TYPICAL VALUES
Lap Shear @ 23°C	EN 12068	> 250 N/cm ²
Lap Shear @ 60°C	EN 12068	> 35 N/cm ²
Backing Properties		
Tensile Strength	ASTM D638	22 MPa
Elongation	ASTM D638	600%
Hardness	ASTM D2240	55 Shore D
Volume Resistivity	ASTM D257	10 ¹⁷ ohm-cm
Abrasion Resistance	ASTM D4060	6 mg
Bursting Strength	DIN 30672	> 2200N
Sleeve Properties		
Adhesion Strength @ 23°C	EN 12068	> 125 N/cm
Adhesion Strength @ 60°C	EN 12068	> 15 N/cm
Impact Resistance	EN 12068	> 30 J
Indentation Resistance	EN 12068	Pass
Cathodic Disbondment @ 23°C, 28 days	EN 12068	< 3 mm rad
Cathodic Disbondment @ 65°C, 48 hours	EN 12068	< 3 mm rad
Microbiological Resistance	ASTM G21	Pass

SLEEVE OPERATING CHARACTERISTICS	TEST METHOD	TYPICAL VALUES
Soil Stress Resistance	EN 489: 2009	Pass
Gouge Resistance	CSA Z245.21	0.5 mm
Low Temp. Flexibility	ASTM D2671-C	> -32°C
Total System Thickness	Supplied	Typical Applied
Standard Product	2.8mm	3.0mm

* Indicated minimum installation temperature is for typical 3-layer systems. Please refer to the appropriate DDX install guide for the minimum installation temperature of a typical 2-layer system.

† Average gouge depth. Test method modified for field-applied 2-layer and 3-layer PE coating systems

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