

SYNTHO-SLEEVE™ OUTER WRAP

BURY, BORE, OR DRILL IN LESS THAN ONE HOUR



Syntho-Sleeve Outer Wrap provides increased mechanical protection and strength for field joints and directional drilling applications with its:

- Higher impact resistance
- Higher abrasion resistance
- Higher tensile and flexural strength
- Pressure retention capabilities
- Reduced damage during pull through; 90% smoother profile than shrink sleeves

Description

Syntho-Sleeve™ Outer Wrap is designed to protect field-welded joints on pipelines from the abrasion stresses and scarring of directional drilling and boring on a wide range of pipe diameters. Syntho-Sleeve provides mechanical protection to the preapproved corrosion coating of your choice, such as Viscous Elastic Coatings, Epoxy Coatings, Shrink Sleeves, and Cold Applied Tapes. This unique product has a faster setting time, is easier to apply, has a very low profile, is extremely conformable, and is highly impact resistant. The result is cost-effective, long-term protection against corrosion with superior mechanical protection.



Syntho-Sleeve Mechanical Properties

Tensile Strength	ASTM D638	36,000 PSI (2482.7 BAR)
Flexural Strength	ASTM D790	26,000 PSI (1793.1 BAR)
Compressive Strength	ASTM D695	24,000 PSI (1655.1 BAR)
Impact Resistance	ASTM G14/G62	123 ft. lb. (167 J)
Dielectric Strength	ASTM D149	16 Kv
Hardness	Shore D	80
Lap Shear	ASTM D5379	900 PSI (62.1 BAR)
Gel Time	Time	5 Min @ 75°F (167°C)

Benefits

- Quick setting
- Simple, cost-effective installation
- Nonhazardous
- Drastically reduced installation time and materials
- Easy to apply
- Consistency of application, joint after joint
- Pre-impregnated, no field mixing or messy field wetting
- Water activated, no UV light or heating required

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SYNTHO-SLEEVE™ SYSTEM

BURY, BORE, OR DRILL IN LESS THAN ONE HOUR



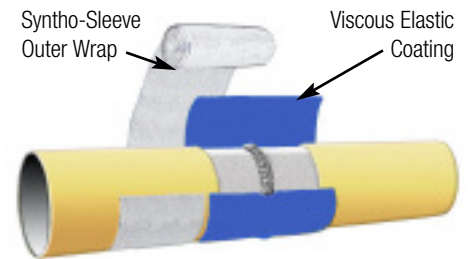
The **Syntho-Sleeve System** consists of two components: the primary layer, a Viscous Elastic Coating, requires minimal surface preparation and provides guaranteed corrosion protection of the field joint; while the secondary composite layer, Syntho-Sleeve Outer Wrap, provides mechanical protection against abrasion during pull through. This unique product has a faster setting time, is easier to apply, has a very low profile, is extremely conformable, and is highly impact resistant. The result is cost-effective, long-term protection against corrosion with superior mechanical protection.

Viscous Elastic Coating Mechanical Properties

Thickness	Measured	> .071" (> 1.8mm)
Density	ASTM D792	0.04 - 0.1 lb/in ³ (1.1-3 g/cm ³)
Impact Resistance	EN 12068	11 ft. lb. (15 J)
Indentation Resistance	EN 12068	.02" remaining (pass) (0.60mm)
Peel Strength	EN 12068	> 72.5 PSI Cohesive failure (> 0.5 N/mm ²)
Lap Shear Strength	EN 12068	2.9 PSI (0.02 N/mm ²)
Glass Transition Temperature	ASTM D3418	< -4°F (< -20°C)
Cathodic Disbondment Resistance	ASTM G8/EN 12068	.08" @ 73°F (2mm @ 23°C)
Cathodic Disbondment Resistance	ASTM G42/EN 12068	.04" @ 140°F (1mm @ 60°C)
Electrical Resistance	EN 12068	> 9.3x10 ⁶ ohm/ft ² (> 10 ⁸ ohm/m ²)
Unwinding Test @ -22°F (-30°C)	EN 12068	No separation, tears, or cracks
Low Temperature Flexibility @ -22°F (-30°C)	EN 12068	No separation, tears, or cracks
Water Absorption	ASTM D570	< 0.05%
Drip Resistance	EN 12068	Pass at 194°F (90°C)

The **Syntho-Sleeve System** provides a reliable, more cost-effective solution by:

- **Increasing** speed of application; no waiting for epoxy to set; no additional tools required for application
- **Extremely surface tolerant**; no grit blasting, only wire brushing or hand tool cleaning required
- **Eliminating** the need for flame torch and preheating
- **Reducing** damage during pull through due to its strength and low profile; 90% reduction in thickness as compared to competition
- **Self-healing** capabilities; cold flow providing permanent saturation into the finest pores of the substrate
- **Outstanding** impact resistance
- **Low surface tension**; adheres on all dry substrates at a molecular level



Benefits

- Simple, cost-effective installation
- Highly effective protection against corrosion
- Nonhazardous
- No osmosis or under creep
- Product can self heal
- No hot work, no torches, no cooling time
- No sandblasting

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