

A 3 layer high performance fiberglass reinforced sleeve specifically designed for girth weld corrosion protection on pipelines operating up to 65°C.



## Product description

### ROCS 60E field-joint coating.

**Construction:** Three-layer system:

**First layer:** Liquid epoxy, solvent-free two-component.

**Second layer:** High shear strength copolymer adhesive.

**Third layer:** Thick, fiberglass reinforced, radiation cross-linked polyethylene.

The ROCS 60E system is a wrap-around heat-shrinkable sleeve reinforced with fiberglass. ROCS 60E is designed to protect girth welds against corrosion and is the optimum joint protection for PE and FBE coated pipes.

The reinforcement gives the backing greater wear resistance.

During installation, the epoxy is applied to the prepared pipe surface and the heat-shrinkable sleeve is immediately wrapped around the joint over the wet epoxy. Heat is then applied to the sleeve, which shrinks to form a tight fit around the joint. While curing, the epoxy forms strong mechanical and chemical bonds to the pipe surface & to the copolymer adhesive layer. The radiation cross-linked outer layer forms a tough barrier against mechanical damage and moisture transmission.

## Product features/benefits

- Highly resistant to shear and peel forces induced by soil and thermal movements**  
 The ROCS 60E is tough!
- Rocs60E offers abrasion and wear resistance at pull-through comparable to mill coatings**  
 Provides a monolithic coating system.
- Sleeve applied over wet epoxy---there are no curing or waiting times / formation of strong mechanical & chemical bonds**  
 Allows fast application---saves time!  
 Ensures high performance!
- Superior cathodic disbondment and hot water immersion resistance**  
 Offers the optimum barrier protection against corrosion.
- Pre-attached closure patch**  
 Allows fast and easy application.
- Low preheat requirements**  
 Makes installation faster and saves time.

## Product selection guide

	ROCS 60E
Max operating temperature	65°C (149°F)
Compatible line coatings	PE, FBE
Min preheat temperature	70°C (158°F)
Recommended pipe preparation	SA 2½
Soil stress restrictions	None

## Product thickness

	Unit
Backing (as supplied)	1.85 mm (0.073 in.)
Backing (fully free recovered)	2.3 mm (0.091 in.)
Adhesive (as supplied)	1.2 mm (0.048 in.)

## Product properties: ROCS 60E

Property	Test method	Typical Value
<b>Backing</b>		
Bursting strength	DIN 30672	2350 N
Resistance to split propagation	RUD 6026	No cut propagation
Thermal ageing 168hs (150 +/- 2)°C followed by Bursting Strength @ 23°C	ISO 188 DIN 30672	1700 N (382 lb)min
Dielectric strength	ASTM D149	12kV/mm min
<b>Adhesive</b>		
Softening point	ASTM E-28	94°C (201°F)
Lap shear	ASTM D1002 EN12068 @10 mm/min	528 psi 0.40 N/mm2 @60°C (140°F)
<b>Sleeve</b>		
Peel to primed steel	EN 12068 @ 10mm (0.40*)/min.	18 N/mm
Impact resistance	EN 12068, Class C	Pass 15 J
Indentation resistance	EN 12068 class C60	3.1 mm remaining thickness @60°C (140°F)
Cathodic disbondment	EN12068, 30 days	0 mm @60°C (140°F)
Soil Stress Creep Resistance	TP 206 , 24 hrs	0.0 mm @ 65°C (149°F)

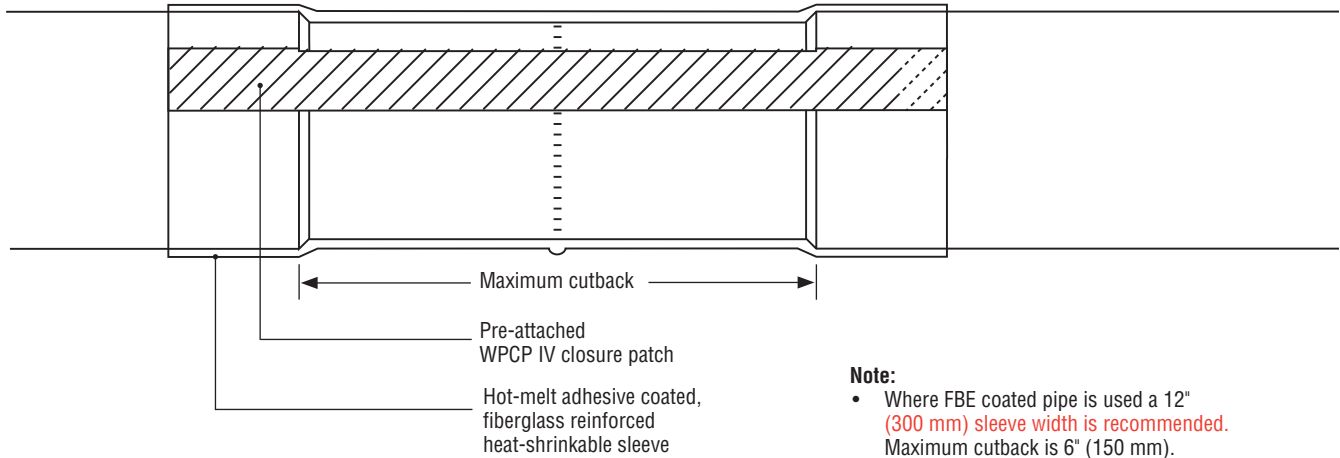
\* Remaining coating thickness

## Ordering information

### ROCS 60E type products are available:

- as a roll (closure patches to be ordered separately)
- as uni sleeve (precut sleeve with pre-attached closure patch)
- as cut pieces (closure patches to be order separately)

ROCS 60E is installed with S1301-M or S1239 2-component epoxy primer which has to be ordered separately.



#### Note:

- Where FBE coated pipe is used a 12" (300 mm) sleeve width is recommended. Maximum cutback is 6" (150 mm).
- Select sleeve width that will overlap onto the mill-applied coating by 2 inches (50 mm) minimum on each side of the weld joint.

### Example: ROCS 60E-16000X24/UNI

		Standard Ordering options
ROCS 60E	Product type	ROCS 60E
16000	Outside pipe diameter in mils (L)	3.500" – 48.000" (DN80 – DN1200)
24	Sleeve width in inches (Sw)	12" (300 mm) <sup>(1)</sup> , 17" (430 mm) <sup>(1)</sup> , 24" (600 mm) <sup>(1)</sup> , 34" (863 mm) <sup>(1)</sup> L
/UNI	Designates pre-attached closure patch	Optional

<sup>(1)</sup> Nominal width

\* Roll form (closure patches to be ordered separately)

### Example: ROCS 60E-17X100-RL

		Standard Ordering options
ROCS 60E	Product type	ROCS 60E
17	Roll width in inches (Sw)	12" (300 mm) <sup>(1)</sup> , 17" (450 mm) <sup>(1)</sup> , 24" (600 mm) <sup>(1)</sup> , 34" (870 mm) <sup>(1)</sup>
100	Roll length in feet (Sl)	100 ft (= 30 m), 66 ft (= 20 m, for C30/width 34" (870 mm) only)

\* Closure patch

### Example: WPCP-IV-4x17

4	Closure patch width in inches (Pw)	4" (100 mm), 5" (125 mm), 6" (150 mm), 8" (200 mm)
17	Closure patch length in inches (Pl)	12" (300 mm) <sup>(1)</sup> , 17" (450 mm) <sup>(1)</sup> , 24" (600 mm) <sup>(1)</sup> , 34" (870 mm) <sup>(1)</sup>

Sleeve cut lengths and appropriate closure patch widths depend on the pipe size and product construction, see application table

For proper product installation, see latest installation instruction.

<sup>(1)</sup> Nominal width

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CORROSION PROTECTION GROUP

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