



*Revised on April 2012*

## **R3470**

### **PRODUCT PROFILE:**

R3470 is a fast setting Novolac epoxy coating, 100% solids and completely non-hazardous. R3470 is the ultimate coating for repairs and rehabilitation for pipelines operating at maximum temperatures up to 100°C (212°F). This two-part, solvent free epoxy can easily achieve a dry film thickness of up to 40 mils with one pass. This product offers superior adhesion and abrasion resistance.

### **PRODUCT APPLICATIONS:**

- Girth welds, valves, fittings, bends, and odd shapes
- Rehabilitation and repair of pipelines, new pipelines, or any other metal substrate needing corrosion protection

### **PRODUCT FEATURES and BENEFITS:**

- 100% Solids, Epoxy Novolac
- NO VOCs and NO ISOCYANATES
- Novolac Chemistry-designed for pipeline operating temperatures up to 100°C (212°F)
- Superior abrasion resistant properties
- R3470 can be spray or hand applied-field work made easier
- Superior bonding to bare steel and FBE
- Excellent cathodic disbondment properties, adhesion, and flexibility

### **PHYSICAL PROPERTIES**

<b>Property</b>	<b>Test Method</b>	<b>Typical Value</b>
Specific gravity	ASTM D 3289-03	1.47
Compressive strength	ATSM C-109	15,500 psi
Hardness	ASTM D-2240	85 Shore D
Resistance to acids & alkalies	ASTM C-481	Excellent
Thin film water absorption	ASTM D-570-98	1.44 average weight gain
Cubed water absorption after immersion	ASTM C 642-82	
Dielectric strength (in oil)	ASTM D-149	746.83 volts/mil
Adhesion to: FBE	ASTM D 4541	greater than 2,200 psi
Bare steel	ASTM D-4541	greater than 2,200 psi
Impact resistance	ASTM G-14-88	72 in-lbs/8.13 joules
Flexibility	NACE RP-0394	0.6°/pd

Tabor abrasion CS-17 wheel	ASTM D-4060-95	1785 cycles/mil
Cathodic disbondment @ 28 days Temp 195°F	ASTM-G95	less than 10 mm disbondment

### **PRODUCT GUIDE**

Surface profile 2.45-4.0 mils; 63-101 microns Surface preparation SA 2 ½ , SSPC-10-near white, SSPC-SP5-white Color Beige Single coat thickness: Manually applied Spray applied 30+ mils 40+ mils Recoat Interval 15 min@45°F; 10 min@70°F; 7 min@100°F Clean up MEK

Maximum operating temperature 212°F (100°C)

Compatible line coatings	FBE, CTE
Mixing ratio: By volume	3 part A: 1 part B
By weight	5 part A : 1 part B

### **CURE TIMES**

	45°F	70°F	100°F
Pot life	25 minutes	12 minutes	4 minutes
Gel time	30 minutes	15 minutes	12 minutes
Dry time	4 hours	1 hours	30 minutes
65 Shore D reading	3 hours	2 hours	30 minutes
80 Shore D reading	72 hours	6 hours	2 hours
Application temp range	38°F – 150°F		
Shelf Life	1 year		

### **RECOMMENDED TIP SIZES**

Tip Size	Pipe Size (DN)	Flow Rates
331	To 12" (DN300)	19 tip=1.1 L/min.
419/431	12"-16" (dn300-400)	31 tip=2.8 L/min.
519/531	16"-24" (DN400-600)	Note: fluid pressure at tip approx. 3,500psi
619/631	24"-48" (DN600-1200)	

### **TYPICAL APPLICATION**

Theoretical Coverage Rates	425 mil-sq. ft./litre
	1605 mil-sq. ft/US gallon
	1.0 mm-m <sup>2</sup> /litre

**RECOMMENDED FILM THICKNESS:**

- Wet: up to 40 mils per coat
- Dry: up to 40 mils per coat

**APPLICATION GUIDE:**

- Spray Grade: Plural component spray system-Tip size .027 – .037
- Brush Grade: Brush or Roller

**TEMPERATURE CONSIDERATIONS:**

If the surface to be coated is below 10°C (50°F), preheating of the substrate is recommended. Preheat temperatures should not exceed 93°C (200°F) prior to the application.

**STORAGE and HANDLING:**

For optimum performance, store R3470 products in a dry, well ventilated area. Maintain products in original packaging and sealed until just before use. Avoid exposure to direct sunlight, rain, snow, dust, or other adverse environmental conditions or contaminants.

**SAFETY**

Mixes and applications of this product present a number of hazards. Read and follow the hazard information, precautions and first aid directions on the individual product labels and material safety data sheets before using. While all statements, technical information, and recommendations contained herein are based on information our company believes to be reliable, nothing contained herein shall constitute any warranty, express or implied, with respect to the products and/or services described herein and any such warranties are expressly disclaimed. We recommend that the prospective purchaser or user independently determine the suitability of our product(s) for their intended use. No statement, information or recommendation with respect to our products, whether contained herein or otherwise communicated, shall be legally binding upon us unless expressly set forth in a written agreement between us and the purchaser/user.

Please contact ErgonArmor for further information at 877.982.7667 or FAX 601-933-3381. For all Terms and Conditions of Sale see [ergonarmor.com](http://ergonarmor.com).

**ORDERING INFORMATION**

For additional information, prices, or to place an order, please contact your ErgonArmor sales representative. If you do not know the name of your sales representative, call 877-98ARMOR.

