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Product Technical Data

american coating technologies
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AM 3470R Fast Setting Novolac Epoxy Coating

Product Description

AM 3470R 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.

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 & Benefits

- **100% Solids, Epoxy Novolac**
- **NO VOCs and NO ISOCYANTES**
- **Novolac-designed for pipeline operating temperatures up to 100°C (212°F)**
- **Superior abrasion resistant properties**
- **Spray or hand applied-field work**
- **Superior bonding to bare steel and FBE**
- **Excellent cathodic disbondment properties, adhesion, and flexibility**

Physical Properties:

Specific Gravity:
Test Method: **ASTM D 3289-03**
Typical Value: **1.47**

Compressive Strength:
Test Method: **ATSM C-109**
Typical Value: **15,500 psi**

Hardness:
Test Method: **ASTM D-2240**
Typical Value: **85 Shore D**

Resistance to Acids and Alkalies:
Test Method: **ASTM C-481**
Typical Value: **Excellent**

Thin Film Water Absorption:
Test Method: **ASTM D-570-98**
Typical Value: **1.44 average weight gain**

Cubed Water Absorption After Immersion:
Test Method: **ASTM C 642-82**

Dielectric Strength (In Oil):
Test Method: **ASTM D-149**
Typical Value: **746.83 volts/mil**

Adhesion To—FBE:
Test Method: **ASTM D 4541**
Typical Value: **Greater than 2,200 ps**

Adhesion To—Bare Steel:
Test Method: **ASTM D 4541**
Typical Value: **Greater than 2,200 psi**

Impact Resistance:
Test Method: **ASTM G-14-88**
Typical Value: **72 in-lbs/8.13 joules**

Flexibility:
Test Method: **NACE RP-0394**
Typical Value: **0.6°/pd**

Tabor Abrasion CS-17 Wheel:
Test Method: **ASTM D-4060-95**
Typical Value: **1785 cycles/mil**

Cathodic disbondment @ 28 days Temp 195°F:
Test Method: **ASTM-G95**
Typical Value: **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 applied30+ mils 40+ mils Re-coat Interval15 min@45°F; 10 min@70°F; 7 min@100°F Clean up MEK.

Maximum operating temperature212°F (100°C):
Compatible line coatings: **FBE, CTE**
Mixing Ratio (By Volume): **3 part A: 1 part B**
Mixing Ratio (By Weight): **5 part A : 1 part B**

Shelf Life: 1 year

Application temp range: 38°F – 150°F

Cure Schedule @ 45°F:

Pot life:	25 minutes
Gel time:	30 minutes
Dry time:	4 hours
65 Shore D reading:	3 hours
80 Shore D reading:	72 hours

Cure Schedule @ 70°F:

Pot life:	12 minutes
Gel time:	15 minutes
Dry time:	1 hours
65 Shore D reading:	2 hours
80 Shore D reading:	6 hours

Cure Schedule @ 100°F:

Pot life:	4 minutes
Gel time:	12 minutes
Dry time:	4 hours
65 Shore D reading:	30 minutes
80 Shore D reading:	30 minutes

Recommended Tip Sizes:

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

Physical Properties:

Theoretical Coverage Rates:
425 mil-sq. ft./litre
1605 mil-sq. ft/US gallon
1.0 mm-m2/litre

Recommended Film Thickness:

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

Recommended Film Thickness:

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 contaminates.

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.