

## High Temperature and Chemical Resistant Novolac Vinyl Ester Coating

*A low VOC, novolac vinyl ester based, sprayable protective barrier coating for high temperature, chemical exposures where thermal cycling conditions may be present. ARC S7 industrial coating is designed to:*

- Resist thermal cycling conditions up to 180°C (356°F)
- Resist a wide range of inorganic as well as organic acids and hydrocarbon based chemical compounds
- Easily apply by airless spray system

### Application Areas

- Flue gas ducts
- Process tanks
- Storage tanks
- Gas/gas heat exchangers
- Electrostatic precipitators
- Chimney stack liners
- Reactor domes
- Bag filters
- Evaporators

### Packaging and Coverage

375 µm (15 mils) WFT yields 300 µm (12 mil) DFT

- 14 liter kit covers 37.33 m<sup>2</sup> (401.86 ft<sup>2</sup>).
- ARC S7 is recommended to be applied as a two coat system at 375 - 500 µm (15 - 20 mil) wft<sup>1</sup> per coat.

The recommended total dft<sup>2</sup> is 650 - 850 µm (25 - 30 mil)

Note: Components are pre-measured & pre-weighed. Each kit includes mixing and application instructions.

### Colors: Red and white

1. wft = wet film thickness
2. dft = dry film thickness

Maintain transport temperature below 24°C (75°F)



### Features and Benefits

- **Chemical resistant polymer matrix**
  - Resists a broad spectrum of organic and inorganic acid
  - Resistant to cold wall delamination
- **Incorporates fine-graded sizes of reinforcements**
  - Permeation resistant
- **Toughened resin structure**
  - Resists cracking and disbondment under thermal cycling conditions
  - Survives rapid decompression
- **Low mixed viscosity**
  - Easy to apply by conventional airless spray
- **High dielectric resistivity**
  - Allows user to inspect with high voltage spark testing per NACE SP0188
- **Cured films have low surface energy**
  - Reduces particle attachment

Technical Data (All results are based on ambient curing)			
Composition	Matrix	An epoxy novolac vinyl ester resin reacted with a catalyst	
	Reinforcement	A proprietary blend of high density reinforcements	
Cured Density		1.6 gm/cc	97 lb/ cu.ft.
Compressive Strength	(ASTM D 695)	1,124 kg/cm <sup>2</sup> (110 MPa)	16000 psi
Flexural Strength	(ASTM D 790)	527 kg/cm <sup>2</sup> (51.7 MPa)	7500 psi
Flexural Modulus	(ASTM D 790)	6.35 x 10 <sup>4</sup> kg/cm <sup>2</sup> (6.23 x 10 <sup>3</sup> MPa)	9003 x 10 <sup>5</sup> psi
Tensile Elongation	(ASTM D 638)	1.04%	
Pull-Off Adhesion	(ASTM D 4541)	166 kg/cm <sup>2</sup> (16.3 MPa)	2370 psi
Impact Resistance (direct)	(ASTM D 2794)	9.1 N-m	80 in-lbs.
Durometer Hardness Shore D	(ASTM D 2240)	89	
Maximum Temperature (Dependent on service)	Wet Service	135°C (water)	275°F
For intermittent exposures at higher temperatures, consult factory	Dry Service	180°C (continuous)	356°F
VOC (Part A & B)	EPA 24 @ 43°C (110°F)	0.07 kg/l	0.55 lb/gal
Shelf Life (unopened containers)	6 months [transported and stored between 10°C (50°F) and 24°C (75°F)]		