

**ARC S7 AR is a novolac vinyl ester based, ceramic reinforced, protective coating for high temperature, chemical exposures where erosive particulates and thermal cycling conditions may be present. ARC S7 AR is designed to:**

- Resist erosion
- Resist thermal cycling conditions up to 180°C (350°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

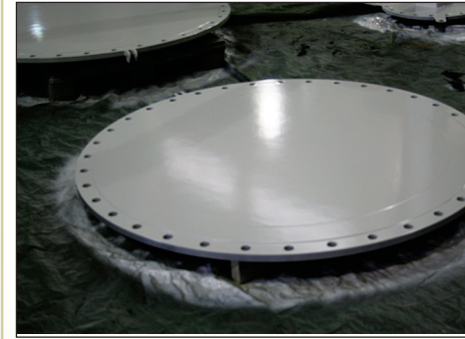
- 14 liter kit covers 36.75 m<sup>2</sup> (395.57 ft<sup>2</sup>).
- For gaseous and condensing gas applications, ARC S7 AR is recommended to be applied as a two coat system at 375 - 500 µm (15 - 20 mil) wft<sup>1</sup> per coat.  
The recommended total dft<sup>2</sup> is 650 - 850 µm (25 - 30 mil)
- For immersion applications, it is recommended to use ARC S7 as a base coat, followed by ARC S7 AR as a top coat.

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

Colors: Light gray or Dark gray

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 ceramic reinforcements**
  - Abrasion resistant
- **Toughened resin structure**
  - Resists cracking and disbondment under thermal cycling conditions
- **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 ceramic and glass flake reinforcements	
Cured Density		1.3 gm/cc	81 lb/ cu.ft.
Compressive Strength	(ASTM D 695)	759 kg/cm <sup>2</sup> (74.5 MPa)	10,800 psi
Flexural Strength	(ASTM D 790)	513 kg/cm <sup>2</sup> (50.3 MPa)	7,300 psi
Flexural Modulus	(ASTM D 790)	3.3 x 10 <sup>4</sup> kg/cm <sup>2</sup> (3.24 x 10 <sup>3</sup> MPa)	4.7 x 10 <sup>5</sup> psi
Taber Abrasion (H-18 Wheel, 1Kg load, 1000 cycles)	(ASTM D 4060)	278 mg	
Tensile Elongation	(ASTM D 638)	2.37%	
Pull-Off Adhesion	(ASTM D 4541)	260 kg/cm <sup>2</sup> (25.5 MPa)	3,700 psi
Impact Resistance (direct)	(ASTM D 2794)	2.26 N-m	20 in-lbs.
Durometer Hardness Shore D	(ASTM D 2240)	85	
Maximum Temperature (Dependent on service) For intermittent exposures at higher temperatures, consult factory	Wet Service Dry Service	135°C (water) 180°C (continuous)	275°F 355°F
VOC (Part A & B)	EPA 24 @ 110°C (230°F)	0.01 kg/l	0.09 lb/gal
Shelf life (unopened containers)	6 months [transported and stored between 10°C (50°F) and 24°C (75°F)]		