Product Datasheet: ARC S5(E)

Sprayable coating for extreme high temperature immersion up to 180˚C (356˚F). Ideal for elevated temperature process vessels, and equipment exposed to heated fluids where high temperature differentials may exist.

ARC S5(E) industrial coating/lining:

- Protects and upgrades new and old metal equipment
- Performs in immersed aqueous solution conditions up to 180°C (356°F)
- Replaces exotic alloys, engineered plastics, ceramics and conventional coatings
- Is easily applied by roller, brush, squeegee, or airless spray

Application Areas

- Transport oil pipelines
- Separators
- Deaerators
- Fans and housings
- Ducting
- Tanks and vessels
- Heat exchangers
- Pumps
- Valves

Packaging and Coverage

Nominal, based on a 750 µm (30 mil) thickness

- 5 liter kit covers 6.67 m^2 (71.76 ft^2)
- 16 liter kit covers 21.33 m^2 (229.63 ft^2)

Note: Components are pre-measured & pre-weighed.

Each kit includes mixing and application instructions.
5 liter kits include tools.

Colors: Light Gray or Medium Gray

Features and Benefits

- **Tested to NACE TM0185**
  - 180˚C (356˚F)
  - 100 Bar (1450 psi)
- **Unique chemistry and reinforced design**
  - Resists dilute acid <70˚C (160˚F)
- **Incorporates fine-graded sizes of reinforcements**
  - Permeation resistant
  - Resistant to cold wall delamination
  - Resists thermal-mechanical shock
  - Survives rapid decompression
- **Spark testable per NACE SP0188**
  - Easy post application holiday inspection
- **High adhesive strength to metal**
  - Provides long term protection
  - Protects against under-film corrosion
- **100% solids; no VOCs; no free isocyanates**
  - Enhances safe use
- **In-situ curing in service at elevated temperature**
  - No post curing needed

Technical Data	*(Mechanical property data after 7 day ambient cure)*		
Composition — Matrix	A two component, modified novolac epoxy resin reacted with a cycloaliphatic amine curing agent		
Reinforcement *(Proprietary)*	Ceramic and mineral particles to increase modulus and retard blistering while offering resistance to erosive flow		
Cured Density		1.81 gm/cc	113.00 lb/ cu.ft.
Compressive Strength	(ASTM D 695)	1012,5 kg/cm^2 (99 MPa)	14400 psi
Flexural Strength	(ASTM D 790)	429 kg/cm^2 (42 MPa)	6100 psi
Flexural Modulus	(ASTM D 790)	8.1 x 10^4 kg/cm^2 (7928 MPa)	11,5 x 10^5 psi
Pull-Off Adhesion	(ASTM D 4541)	459.4 kg/cm^2 (45.1 MPa)	4400 psi
Tensile Strength	(ASTM D 638)	253 kg/cm^2 (24,7 MPa)	3600 psi
Tensile Elongation	(ASTM D 638)	3.6%	
Shore D Durometer Hardness	(ASTM D 2240)	83	
Vertical Sag Resistance at 21°C (70°F) and 500 µm (20 mil)		No sag	
Maximum Temperature (Dependent on service)	Wet Service Dry Service	180°C 210°C	356°F 410°F
Shelf life (unopened containers)	2 years [stored between 10°C (50°F) and 32°C (90°F) in dry, covered facility]		

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