# 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<br>Dry Service | 180°C<br>210°C | 356°F<br>410°F |
| Shelf life (unopened containers) | 3 years [stored between 10°C (50°F) and 32°C (90°F) in dry, covered facility] | | |

Chesterton International GmbH
Am Lenzenfleck 23, DE-85737 Ismaning, Germany
Tel +49-5223-96276-0
www.aw-chesterton.eu eu-pds@chesterton.com