

## Chesterton ARC S2 Ceramic reinforced erosion resistant coating

Category : Ceramic , Polymer , Thermoset , Epoxy

### Material Notes:

**Description:** An advanced ceramic composite for the resurfacing and protection of all metal surfaces. It is normally applied at a thickness of 250 microns (10 mils) per coat. Non-shrinking, 100% solids. ARC S2 is formulated for the resurfacing of metal components subjected to extreme corrosive or severe fluid flow conditions. ARC S2 is a low viscosity composite that is designed to be spray applied but may also be applied by roller or brush. This product is formulated as a two coat system to provide extended wear life for plant equipment. Cured ARC S2 provides a high gloss ceramic surface with resistance to erosion-corrosion.

**Benefits:** High gloss finish reduces drag, improves pump efficiency on worn components Tough resin structure resists thermal-mechanical shock Outstanding adhesion insures reliable performance against under film corrosion Labor and downtime are reduced due to ease of application and rapid curing Convenient 2-1 volumetric mix ratio and verification of mix by color change Performs well under fluctuating chemical environments.

**Suggested Uses:** Fans & Housings Heat Exchangers Hoppers Tank Linings Valve Assemblies Waterboxes Cooling Water Systems Pump Components Scrubber Systems Pipeline Coatings

Information provided by Chesterton

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Chesterton-ARC-S2-Ceramic-reinforced-erosion-resistant-coating.php](http://www.lookpolymers.com/polymer_Chesterton-ARC-S2-Ceramic-reinforced-erosion-resistant-coating.php)

Physical Properties	Metric	English	Comments
Density	1.60 g/cc	0.0578 lb/in <sup>3</sup>	Cured

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	85	85	ASTM D2240
Tensile Strength at Break	46.2 MPa	6700 psi	ASTM D638
Elongation at Break	4.0 %	4.0 %	ASTM D638
Flexural Strength	75.8 MPa	11000 psi	ASTM D790
Flexural Modulus	5.45 GPa	790 ksi	ASTM D790
Compressive Strength	64.8 MPa	9400 psi	ASTM D695
Adhesive Bond Strength	>= 14.5 MPa	>= 2100 psi	Lap Shear; ASTM D4541
Taber Abrasion, mg/1000 Cycles	280 @Load 1.00 kg	280 @Load 2.20 lb	H-18, (loss); ASTM D4060
Abrasion	2.4	2.4	[%], Weight Loss, Jet Abrasion; Federal Test method Spec. 6193 Modified

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	52.0 °C	126 °F	Wet Service

Thermal Properties	80.0 °C Metric	176 °F English	Dry Service Comments
<b>Processing Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
<b>Cure Time</b>	<b>60.0 min</b>	<b>1.00 hour</b>	<b>Tack Free</b>
	@Temperature 32.0 °C	@Temperature 89.6 °F	
	<b>120 min</b>	<b>2.00 hour</b>	<b>Tack Free</b>
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	<b>180 min</b>	<b>3.00 hour</b>	<b>Tack Free</b>
	@Temperature 16.0 °C	@Temperature 60.8 °F	
	<b>300 min</b>	<b>5.00 hour</b>	<b>Light Load</b>
	@Temperature 32.0 °C	@Temperature 89.6 °F	
	<b>360 min</b>	<b>6.00 hour</b>	<b>Tack Free</b>
	@Temperature 10.0 °C	@Temperature 50.0 °F	
	<b>600 min</b>	<b>10.0 hour</b>	<b>Light Load</b>
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	<b>600 min</b>	<b>10.0 hour</b>	<b>Overcoat End</b>
	@Temperature 32.0 °C	@Temperature 89.6 °F	
	<b>840 min</b>	<b>14.0 hour</b>	<b>Full Load</b>
	@Temperature 32.0 °C	@Temperature 89.6 °F	
<b>1080 min</b>	<b>18.0 hour</b>	<b>Light Load</b>	
@Temperature 16.0 °C	@Temperature 60.8 °F		
<b>1200 min</b>	<b>20.0 hour</b>	<b>Overcoat End</b>	
@Temperature 25.0 °C	@Temperature 77.0 °F		
<b>1440 min</b>	<b>24.0 hour</b>	<b>Light Load</b>	
@Temperature 10.0 °C	@Temperature 50.0 °F		
<b>1440 min</b>	<b>24.0 hour</b>	<b>Full Load</b>	
@Temperature 25.0 °C	@Temperature 77.0 °F		
<b>1440 min</b>	<b>24.0 hour</b>	<b>Full Chemical</b>	
@Temperature 32.0 °C	@Temperature 89.6 °F		
<b>1800 min</b>	<b>30.0 hour</b>	<b>Overcoat End</b>	
@Temperature 16.0 °C	@Temperature 60.8 °F		

Processing Properties	2400 min Metric	40.0 hour English	Comments
	@Temperature 10.0 °C	@Temperature 50.0 °F	
	2880 min	48.0 hour	Full Load
	@Temperature 16.0 °C	@Temperature 60.8 °F	
	2880 min	48.0 hour	Full Chemical
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	3600 min	60.0 hour	Full Load
	@Temperature 10.0 °C	@Temperature 50.0 °F	
	5760 min	96.0 hour	Full Chemical
	@Temperature 16.0 °C	@Temperature 60.8 °F	
	7200 min	120 hour	Full Chemical
	@Temperature 10.0 °C	@Temperature 50.0 °F	

Descriptive Properties	Value	Comments
Color	Gray	
	Green	

## Contact Songhan Plastic Technology Co.,Ltd.

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