

Chesterton ARC 858 Abrasion resistant rebuilding and faring composite

Category : Ceramic , Polymer , Thermoset , Epoxy

Material Notes:

An advanced ceramic composite for the repair and protection of all metal surfaces subjected to erosion, corrosion and chemical attack. It is normally applied at a thickness of 0.15 mm (60 mils) or more. ARC 858 is 100% solids, non-shrinking. The ARC 858 is formulated for light abrasive, erosive and corrosive environments where metal loss is often repaired by more conventional and costly weld overlay. It can be used either to rebuild eroded metal surfaces or the provide a wear resistant surface which frequently outperforms the original metal or weld overlay. Benefits: High build characteristic allows for sing coat applications reducing labor costs Tough resin structure resists thermal-mechanical shock Outstanding adhesion insures reliable performance Excellent wear characteristic extends equipment operating life Convenient 4:1 mix ratio and verification of mix by color change. Performs well under fluctuating chemical environments Suggested Uses: Condensers Cooling Water Pumps Hoppers Hydro Pulpers Pulp Dewatering Screws Pump Casings Slurry Pumps Valves Volutes Waterboxes Screw Pumps Fans & Housings Wear Plates Pipe Elbows Impellers Pitted Tanks and Pipes Heat Exchangers Wet Scrubbers Tanks and Process Vessels Vacuum Pumps Information provided by Chesterton

Order this product through the following link:

http://www.lookpolymers.com/polymer_Chesterton-ARC-858-Abrasion-resistant-rebuilding-and-faring-composite.php

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

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	105	105	ASTM D785
Hardness, Shore D	88	88	ASTM D2240
Tensile Strength at Break	20.7 MPa	3000 psi	ASTM D638
Flexural Strength	60.7 MPa	8800 psi	ASTM D790
Flexural Modulus	6.83 GPa	990 ksi	ASTM D790
Compressive Strength	89.6 MPa	13000 psi	ASTM D695
Adhesive Bond Strength	>= 13.8 MPa	>= 2000 psi	Tensile; ASTM D4541
	14.5 MPa	2100 psi	Lap Shear; ASTM D1002
Taber Abrasion, mg/1000 Cycles	71	71	[mg], weight loss, H-18/250grams; ASTM D4060

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	70.0 °C	158 °F	Wet Service
	160 °C	320 °F	Dry Service

Processing Properties	Metric	English	Comments
Cure Time	30.0 min	0.500 hour	Tack Free
	@Temperature 43.0 °C	@Temperature 109 °F	
	60.0 min	1.00 hour	Tack Free
	@Temperature 32.0 °C	@Temperature 89.6 °F	
	90.0 min	1.50 hour	Light Load
	@Temperature 43.0 °C	@Temperature 109 °F	
	120 min	2.00 hour	Tack Free
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	150 min	2.50 hour	Light Load
	@Temperature 32.0 °C	@Temperature 89.6 °F	
	180 min	3.00 hour	Tack Free
	@Temperature 16.0 °C	@Temperature 60.8 °F	
	210 min	3.50 hour	Light Load
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	300 min	5.00 hour	Tack Free
	@Temperature 10.0 °C	@Temperature 50.0 °F	
	420 min	7.00 hour	Light Load
	@Temperature 16.0 °C	@Temperature 60.8 °F	
	540 min	9.00 hour	Light Load
	@Temperature 10.0 °C	@Temperature 50.0 °F	
	720 min	12.0 hour	Full Load
	@Temperature 43.0 °C	@Temperature 109 °F	
	960 min	16.0 hour	Full Load
	@Temperature 32.0 °C	@Temperature 89.6 °F	
	1200 min	20.0 hour	Full Load
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	1440 min	24.0 hour	Full Chemical
	@Temperature 43.0 °C	@Temperature 109 °F	
	1800 min	30.0 hour	Full Chemical
	@Temperature 32.0 °C	@Temperature 89.6 °F	

Processing Properties	Metric _{min}	English _{hr}	Comments
	@Temperature 16.0 °C	@Temperature 60.8 °F	Full Load
	2160 min	36.0 hour	Full Chemical
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	2880 min	48.0 hour	Full Load
	@Temperature 10.0 °C	@Temperature 50.0 °F	
	4320 min	72.0 hour	Full Chemical
	@Temperature 16.0 °C	@Temperature 60.8 °F	
	5760 min	96.0 hour	Full Chemical
	@Temperature 10.0 °C	@Temperature 50.0 °F	

Descriptive Properties	Value	Comments
Color	Gray	

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