

Chesterton ARC I BX1 Impact & Wear Resistant Epoxy Composite

Category : Polymer , Thermoset , Epoxy

Material Notes:

Description: An advanced grade epoxy and urethane composite for the repair and protection of all metal surfaces subjected to severe abrasion and impact. It is normally applied at a thickness of 6 mm(1/4") or more. Non-shrinking. 100% Solids. ARC I BX1 is formulated with a high concentration of ceramic beads, fine ceramic particles and urethane for extremely abrasive and impactful 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 provide a wear resistant surface, which frequently outperforms the original metal, weld overlay, rubber liners or ceramic tiles. **Benefits:** Excellent wear characteristics extends equipment operating cycles, typically outwears weld overlay or ceramic tiles Tough resin structure resists thermal-mechanical shock Outstanding adhesion results in reliable performance Labor and downtime costs are reduced due to ease of application Performs well under fluctuation chemical environments, unlike metals which are sensitive to environmental changes Convenient packaging suitable for large volume applications Resistant in direct impact applications Absorbs impact Suggested

Uses: Hoppers/Chutes Hydro Pulpers Ni-hard Slurry Pumps Pneumatic Conveyors Turbo Separators Pulverizers and Impact Zones Wear Plates Pipe Elbows Pulverized Fuel Lines Screw Conveyors Information provided by Chesterton

Order this product through the following link:

http://www.lookpolymers.com/polymer_Chesterton-ARC-I-BX1-Impact-Wear-Resistant-Epoxy-Composite.php

Physical Properties	Metric	English	Comments
Density	2.40 g/cc	0.0867 lb/in ³	Cured

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	83	83	ASTM D2240
Tensile Strength at Break	19.0 MPa	2750 psi	ASTM D638
Elongation at Break	1.7 %	1.7 %	ASTM D638
Flexural Strength	30.5 MPa	4420 psi	ASTM D790
Flexural Modulus	4.96 GPa	720 ksi	ASTM C580
Compressive Strength	47.1 MPa	6830 psi	ASTM D695
Adhesive Bond Strength	>= 13.8 MPa	>= 2000 psi	ASTM D4541
Impact Test	20.3 J	15.0 ft-lb	Reverse; ASTM D2794

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	95.0 °C	203 °F	Wet Service
	205 °C	401 °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	
	90.0 min	1.50 hour	Light Load
	@Temperature 43.0 °C	@Temperature 109 °F	
	120 min	2.00 hour	Tack Free
	@Temperature 32.0 °C	@Temperature 89.6 °F	
	240 min	4.00 hour	Tack Free
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	360 min	6.00 hour	Light Load
	@Temperature 32.0 °C	@Temperature 89.6 °F	
	420 min	7.00 hour	Tack Free
	@Temperature 16.0 °C	@Temperature 60.8 °F	
	480 min	8.00 hour	Light Load
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	720 min	12.0 hour	Full Load
	@Temperature 43.0 °C	@Temperature 109 °F	
	1200 min	20.0 hour	Full Load
	@Temperature 32.0 °C	@Temperature 89.6 °F	
	1440 min	24.0 hour	Light Load
	@Temperature 16.0 °C	@Temperature 60.8 °F	
	1440 min	24.0 hour	Full Chemical
	@Temperature 43.0 °C	@Temperature 109 °F	
	1800 min	30.0 hour	Full Load
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	1800 min	30.0 hour	Full Chemical
	@Temperature 32.0 °C	@Temperature 89.6 °F	
	2160 min	36.0 hour	Full Chemical
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	2880 min	48.0 hour	Full Load

Processing Properties	@Temperature 16.0 °C Metric	@Temperature 60.8 °F English	Comments
	4320 min	72.0 hour	Full Chemical
	@Temperature 16.0 °C	@Temperature 60.8 °F	

Descriptive Properties	Value	Comments
Color	Gray	

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