

## Chesterton ARC 791 Composite

Category : Other Engineering Material , Polymer

### Material Notes:

**Description:** A quartz reinforced composite designed to resurface and restore concrete surfaces, to protect new concrete, and to repair concrete damaged by chemical and physical abuse. ARC 791 has excellent resistance to a broad spectrum of chemicals that are destructive to concrete. ARC 791 is a trowelable overlayment, which can be used at thickness as low as 6 mm (1/4"). ARC 791 is user friendly and will close easily to prevent chemical attack of the substrate by permeation. ARC 791 produces a dense textured surface. Non-shrinking, no solvents, 100% solids. **Benefits:** Fine textured, sealed surface produces a tough, durable, chemical resistant, low maintenance overlayment. Compatible thermal coefficient of expansion provides long-term resistance to disbondment. Moisture insensitive primer provides outstanding adhesion to damp concrete, a unique feature for concrete overlayments. User friendly consistency makes installation and finishing fast and easy. The reinforcement is engineered to minimize air entrapment and to improve mixing. ARC 791 is stronger than standard concrete and its tough resin structure resists mechanical impact. **Applications:** ARC 791 is generally used to repair and upgrade concrete surfaces or used as a replacement for acid resistant tiles, epoxy mortars, fiberglass, and other overlayments. It is formulated to be compatible with concrete. The ARC 791 has the unusual ability to bond to damp surfaces. **Suggested Uses:** Acid and Alkali Spill Areas, Bottling Lines, Equipment Bedding, Pump Bases/Grouting, Waste Water Treatment, Concrete Tanks/Sumps, Food Processing Plants, Trenches/Drains, Structural Support Columns. Information provided by Chesterton

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Chesterton-ARC-791-Composite.php](http://www.lookpolymers.com/polymer_Chesterton-ARC-791-Composite.php)

Physical Properties	Metric	English	Comments
Density	1.88 g/cc	0.0679 lb/in <sup>3</sup>	Cured

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	19.7 MPa	2850 psi	ASTM C307
Modulus of Elasticity	12.9 GPa	1870 ksi	ASTM C580
Flexural Strength	37.9 MPa	5500 psi	ASTM C580
Compressive Strength	64.3 MPa	9320 psi	ASTM C579
Adhesive Bond Strength	>= 2.76 MPa	>= 400 psi	Excellent - 100% Concrete
Abrasion	<= 148	<= 148	[mg], Tabor, H-18/250gm wt/500 cycles; ASTM D4060

Thermal Properties	Metric	English	Comments
CTE, linear	27.0 μm/m-°C	15.0 μin/in-°F	ASTM C531
Maximum Service Temperature, Air	66.0 °C	151 °F	Continuous (Water Immersion)
	93.0 °C	199 °F	Intermittent (Water Immersion)

Processing Properties	Metric	English	Comments
Cure Time	270 min	4.50 hour	Foot Traffic
	@Temperature 32.0 °C	@Temperature 89.6 °F	
	360 min	6.00 hour	Foot Traffic
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	510 min	8.50 hour	Light Load
	@Temperature 32.0 °C	@Temperature 89.6 °F	
	540 min	9.00 hour	Foot Traffic
	@Temperature 16.0 °C	@Temperature 60.8 °F	
	660 min	11.0 hour	Light Load
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	960 min	16.0 hour	Foot Traffic
	@Temperature 10.0 °C	@Temperature 50.0 °F	
	1140 min	19.0 hour	Light Load
	@Temperature 16.0 °C	@Temperature 60.8 °F	
	1140 min	19.0 hour	Full Load
	@Temperature 32.0 °C	@Temperature 89.6 °F	
	1440 min	24.0 hour	Light Load
	@Temperature 10.0 °C	@Temperature 50.0 °F	
	1440 min	24.0 hour	Full Load
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	2520 min	42.0 hour	Full Load
	@Temperature 16.0 °C	@Temperature 60.8 °F	
	4320 min	72.0 hour	Full Load
	@Temperature 10.0 °C	@Temperature 50.0 °F	
	7200 min	120 hour	Full Chemical
	@Temperature 32.0 °C	@Temperature 89.6 °F	
	10100 min	168 hour	Full Chemical
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	18700 min	312 hour	Full Chemical
	@Temperature 16.0 °C	@Temperature 60.8 °F	

Processing Properties	Metric <small>min</small>	English <small>in</small>	Comments
	@Temperature 10.0 °C	@Temperature 50.0 °F	Full Chemical

Descriptive Properties	Value	Comments
Thermal Compatibility to Concrete	Passes	ATM C884

## Contact Songhan Plastic Technology Co.,Ltd.

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