



# LIQUID CERAMIC™ ROOF COAT

## Product Description

Liquid Ceramic™ Roof Coat is a strong, tough coating, formulated with hollow-core ceramic microspheres, strands and irregular particulate in a complex 100% acrylic suspension with superior adhesion and abrasion resistance. Provides significant resistance to cracking, chalking, peeling and weathering. Exhibits exceptional adhesive and thermal properties.

## Intended Uses

Liquid Ceramic™ Roof Coat is ideal for use on wood shakes and shingles, galvanized steel, enameled steel, aluminium roofing, cement tiles, clay tiles and asphalt shingles. Although available in over 1,001 colors, pastels and white are recommended for peak thermal benefits. Lends itself well to faux-finish techniques.

## Product Data

Characteristics	Test Method	Observation
Weight per US G (3.78L)	FTMS 141 – Method 4184	11 Lbs (4.99Kg)
Non-Volatile Solids	FTMS 141 – Method 4041	By weight: 69.1% By volume: 60.9%
Viscosity	FTMS 141 – Method 4281	Stormer Viscosity: 100 revolutions in 8 seconds at 500 grams
Toxicity	FTMS 141 – Method 511	Material is non-toxic & requires no special ventilation during application. Contains no materials considered to be health hazards.
Flammability	ASTM 1360 – DOT-MVSS 302	In container: Non-flammable On concrete: Self-extinguishing – does not support flame spread.
Package Stability		One year + after opening: no settling or other undesirable effects. Materials completely dispersed after stirring
Abrasion Resistance	FTMS 141 – Method 6192 Tabor C17 Wheel – 100 grams – 1000 cycles	Weight loss in grams: Liquid Ceramic™ Roof with aggregate 41 g Liquid Ceramic™ Roof without aggregate 14 g Epoxy floor coating without aggregate 9 g (Typical)
Hardness	ASTM D2370	6H – This is the hardest value measured by this test and compares to a typical 2H hardness of hard-wood floor finishes

Impact Resistance	ASTM D2794	28 inch-pounds of impact with no break in the film surface. Typically, 20 inch-pounds of impact is considered to be a high performance test result.							
Flexibility	FTMS 141 – Method 6222	Withstood deformation of 1.5" – 38mm to 1/8" – 3.2mm on a metal substrate with no loss of adhesion, cracking, chipping or flaking (mandrel test).							
Elongation	ASTM D2370	12 mils – 0.31mm dry film thickness stretched 160% with 100% full memory. This was the full extent of the elongation and the film never did break.							
Water Resistance (wind-driven rain)	TTC-555 Water driven against test surface at a dynamic pressure equivalent to 98 mph	Time for water to penetrate:							
		<table border="1"> <tr> <td>One Coat</td> <td>6.3 mils</td> <td>30 minutes</td> </tr> <tr> <td>Two coats</td> <td>10.0 mils</td> <td>11 hours</td> </tr> <tr> <td>Three coats</td> <td>12.0 mils</td> <td>none at 24 hours</td> </tr> </table>	One Coat	6.3 mils	30 minutes	Two coats	10.0 mils	11 hours	Three coats
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Moisture Vapor Transmission	ASTM E96 – Procedure B	20.0 perms A "perm" is a unit of measure expressing a coating's ability to allow moisture vapor to pass through the film, or its "ability to breathe". The lower the "perm" rating, the more likely the coating will blister over time.							
High Humidity Resistance	FTMS 141 – Method 6201 100% condensing humidity at 107° F – 41.67° C	336 hours with no evidence of film deterioration, blistering or peeling from substrate (250 hours required to pass Federal Specifications)							
Salt Spray	FTMS 141 – Method 811.1 100% condensing 5% salt fog at 95° F – 35° C	336 hours with no evidence of film deterioration, blistering or peeling from substrate (250 hours required to pass Federal Specifications)							
Artificial Weathering	ASTM E42 – Carbon Arc weatherometer 250 hours equivalent to 5 years	After weatherometer testing (simulated rain, heat, ultra-violet ray and normal weather cycling) the coating showed no evidence of chalking, blistering or peeling, cracking or checking and only slight yellowing of the 100% titanium dioxide white color.							
Fungus Resistance	FTMS 141 – Method 6271	No fungus growth when material tested in an environment of three organisms.							

## Application Characteristics

Material	Single component, ready-to-use from container with little or no stirring required		
Approximate Coverage		Rough porous surface	100 to 175 sq. ft/gallon
		Smooth, tight surface	175 to 225 sq.ft./gallon
Dry Base Film Thickness	One coat	5 to 7 dry mils	
	Two coats	10 to 12 dry mils	
Substrate Preparation	Dry, clean, tight surface with no gloss. – will bridge hairline cracks.		
Application Temperature Range	39° F – 4° C substrate to 80° F – 29° C ambient air in direct sunlight		
Application Method	1.5" nap roller – brush – airless sprayer (0.023" – 0.584mm tungsten-carbide tip)		
Initial Cure (tack-free)	Air dry, 15 to 30 minutes with moderate to low ambient humidity		
Primary Cure	Air dry, 48 hours at 60° F – 15.5° C or greater surface temperature with moderate to low ambient humidity		
Final Cure	90 to 120 days		
Solvent (before curing)	Water		
Cohesion Strength	Outstanding bond to dry or slightly damp surfaces. Strong cohesion to any clean, dry concrete, cement, wood, asphalt, clay tile and primed metal surfaces. Hydrostatic pressure will disrupt this bond.		