



Aqualoc - Ceramic TopCoat

ENERGY EFFICIENT WATERPROOF COATING

BENEFITS

- WATER BASED
- RESISTS PONDING WATER
- NON TOXIC, ODOURLESS
- FREE OF VOC'S
- DURABLE, SUPERIOR BOND
- CAN BE TINTED
- POSITIVE ENERGY SAVINGS
- MOULD & MILDEW RESISTANT
- WATERPROOFING TOPCOAT
- EXTERIOR ROOFING AND WALLS

DESCRIPTION

Aqualoc - Ceramic TopCoat is a strong, tough coating, formulated with hollow-core ceramic micro-spheres, 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. **Aqualoc - Ceramic TopCoat** is intended to be a roofing topcoat, providing an extension to the existing roofing system and is a stand-alone roofing material on certain roofing substrates.

USAGE

Aqualoc - Ceramic TopCoat is ideal for use on Commercial, Industrial, Government, and Residential buildings for exterior walls or roof systems.

Roof systems include:

- Built-Up, Modified Bitumen, and Cold-Process Systems
- Synthetic Rubber Single-Ply Systems
- Galvanized Steel, Aluminum, and Enameled Steel
- Asphalt and Fiber-Cement Shingles
- Concrete Roofs, Concrete and Fired Clay Tiles
- Wood Shake and Shingles

Pastel/White base is recommended for peak thermal benefits.

ADVANTAGES

Cost Savings

- Increase efficiency
- Slows movement of heat and provides heat management
- Greater comfort, reduced energy consumption

Fire Resistant

- Self extinguishing
- Does not support flame spread

Environmentally Friendly

- Modified acrylic, water based product
- Green Product that meets increasingly strict environmental guidelines
- Valuable component of emerging sustainable design programs

UV Resistance

- Excellent UV inhibitor

Weatherproofing

- Creates weatherproof membrane reducing damage and deterioration

Thermal Barrier

- Can withstand thermal cycling
- High solar reflectance and thermal emittance

Colour Choices

- Resists fading
- White, pastels and accent colours
- Easy to apply, roll or sprayed

THIS PRODUCT IS NOT SUBJECT TO THE CONTROLLED PRODUCTS REGULATIONS



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Approvals and Certifications

- Rated by the Cool Roof Rating Council – CRRC Product ID 0896-0001
- California Energy Commission Title 24 Compliant



Product Data

Characteristics	Test Method	Observation
Weight per US Gallon (3.78L)	FTMS 141 – Method 4184	11 LB (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: InsulCoat Roof with aggregate 41 g InsulCoat 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 hardwood 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.
Water Resistance (wind-driven rain)	TTC-555 Time for water to penetrate: Water driven against test surface at a dynamic pressure equivalent to 98 mph	Time for water to penetrate: One Coat 6.3 mils 30 minutes Two Coats 10.0 mils 11 hours Two Coats 12.0 mils none at 24 hours
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).
Fungus Resistance	FTMS 141 – Method 6271	No fungus growth when material tested in an environment of three organisms.

Cool Roof Rate Council

Solar Reflectance	ASTM C1549	0.88
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Thermal Emittance	ASTM C1371	0.87
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VOC by SCAQMD 304 / EPA 24

V.O.C. gm/l (Less Water)	SCAQMD Method 304 (Equation 5.2)	42.0 gm/l
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Volatiles, %	ASTM D2369	33.07
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Water, %	ASTM D4017	30.08
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Density, lb/gal	ASTM D1475	11.74 lb/gal
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Density, gm/ml	ASTM D1475	1.407 gm/ml
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California Energy Commission: Title 24, Part 6, Section 118(i)3, Table 118-C

Initial Percent Elongation (break)	ASTM D2370 Minimum 200% at 73° F (23° C)	445%
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Initial Flexibility	ASTM D522, Method B Minimum pass 1-inch mandrel at 0° F (-18° C)	Pass
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Initial Tensile Strength (maximum stress)	ASTM D2370 Minimum 100 psi (1.38 Mpa) at 73° F (23° C)	210 psi
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Initial Tensile Strength (maximum stress)	ASTM D2370 Minimum 200 psi (2.76 Mpa) at 0° F (-18° C)	220 psi
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Final Percent Elongation (break)	ASTM D2370 Minimum 100% at 73° F (23° C) after 1,000 hours accelerated weathering	150%
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Final Elongation after Weathering	ASTM D2370 Minimum 40% at 0° F (-18° C) after 1,000 hours accelerated weathering	130%
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Permeance	ASTM D1653 Maximum 50 perms; wet cup method; inverted cup	24.9 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.
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Accelerated Weathering	ASTM D4798/G155 (a) No cracking or checking after 1,000 hours accelerated weathering	None Any cracking or chipping visible to the eye fails the test procedure.
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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 Two coats	5 to 7 dry mils 10 to 12 dry mils
Substrate Preparation	Repair all leaks. Pressure wash and clean, or airbrush and clean to remove all loose materials, dirt, grease, oil, or other contaminants from substrate. Dry, clean, tight surface with no gloss – will bridge hairline cracks. Apply Ceramic InsulSeal to porous and/or weathered substrates. Apply appropriate primers on metal and wood surfaces.	
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, masonry, asphalt, clay and concrete tiles, modified bitumen, primed metal or wood surfaces, and various flexible membrane systems. Hydrostatic pressure will disrupt this bond.	

