

USP™ CERAM-A-MAX INSULATING ROOF COAT

Product Data Sheet

PRODUCT INFORMATION: USP™ CERAM-A-MAX INSULATING ROOF COAT is a 56% solids, proprietary blend of elastomeric polymers and ceramic particles designed for spray, brush, or roller application. USP™ CERAM-A-MAX INSULATING ROOF COAT is designed to dry by evaporation leaving an insulating and sound-reducing barrier while yielding a non-yellowing, water repellent surface that provides outstanding weatherability and preventative solutions for the renewal and maintenance of many types of roof.

RECOMMENDED USES:

- As a durable insulating and sound reducing barrier coating over metal roofs, spray-in-place PUF, EPDM, TPO and most asphalt surfaces in conjunction with compatible base coat or primers.
- ENERGY STAR® qualified reflectivity can significantly lower roof surface temperatures.
- Listed with the Cool Roof Rating Council for solar reflectance and thermal emittance - help reduce energy cooling cost.
- SRI Index = 103.6 exceeding criteria for LEED Credit: SS Credit 7.2: Heat Island Effect: Roof 1 Point, Option 1.
- Significantly lowers roof surface temperatures, which can help reduce energy cooling bills.
- Contact U.S. Ply, Inc. for specific uses.

PRODUCT CHARACTERISTICS:

Finish: Satin
Color: White
Viscosity: 12,000 to 19,000 cps. (Brookfield)
Specific Gravity: 1.15
Weight: 9.6 lbs. /gal. +/- 2%
VOC: <50 grams/liter
Coverage: 0.62 – 0.75 gal. /sq per coat (nominal)

SUBSTRATE	Smooth BUR	Modified Bitumen	Metal	EPDM	Aged TPO
USE	Intermediate Coat/Top Coat				
RATE	0.62 gal/100 Sq. Ft. – 0.75 gal/100 Sq. Ft. in accordance with rate requirements for warranty term.				

Drying Schedule: At 9.0 mils wet @ 50% RH

	50°F	70°F	110°F
To Touch	4 hrs.	2 hr.	30 min.
To Recoat	1 day	6 hrs.	4 hrs.
To Cure	30 days	20 days	10 days

Note: Drying time is temperature, humidity, and film thickness dependent.

Shelf Life: (Unopened) – 12 months from date of shipment
Flammability: Non-Flammable
DO NOT FREEZE

SHIPPING INFORMATION:

Container Size	Gross Weight	Class
5 Gal.	50 Lbs.	55
55 Gal.	562 Lbs.	55

D.O.T. Classification: Roof Coating, Not Regulated

HMS:	Health	1
	Flammability	0
	Reactivity	0
	Protection	X

PERFORMANCE CHARACTERISTICS

Physical Properties:

PHYSICAL PROPERTY	TYPICAL VALUE	TEST METHOD
Solids Content By Weight:	56% ± 2%	(ASTM D-1644)
Solids Content By Volume:	49% ± 2%	(ASTM D-2697)
Tensile Strength:	225 psi ± 25	(ASTM D-2370)
Elongation:	125% ± 50%	(ASTM D-882)
Flexibility	Pass 180° Bend	(ASTM D-3111)
Hardness; Shore A	70	(ASTM D-2240)
Fungal Resistance	No growth	(ASTM D-3273)
Solar Reflectance Index:	103.6	(ASTM D-2805)
Reflectivity (White):	83%	(ASTM C-1549)
Emissivity (White):	.91	(ASTM C-1371)
Accelerated Weathering	No degradation after 4,000 hours	(ASTM G-53)
Permeability	4.0 perms at 9 mils	(ASTM E-1653)
Low/High Temperature:	Films retained their ability to be flexed 180° without cracking at temperatures from -15°F to 185°F with no age hardening or slump	(ASTM D-822)



	Initial	Weathered
Solar Reflectance	0.83	Pending
Thermal Emittance	0.91	Pending
Rated Product ID Number	0 0 0 6	
Licensed Seller ID Number	0 8 7 2	
Classification	Production Line	

Cool Roof Rating Council ratings are determined for a fixed set of conditions, and may not be appropriate for determining seasonal energy performance. The actual effect of solar reflectance and thermal emittance on building performance may vary.
 Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.

All values given are approximate and are subject to change without notice. There is no implied or express warranty given through these values or statements, nor are there any assertions that the product purchased has been individually tested to conform to these standards. Testing is performed on a random basis by "in-house" and independent "third party" evaluation for the purpose of classification and/or approval. Acceptance, purchase and selection of these products are the sole responsibility of the buyer or buyer's representative. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of the product. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY U.S. PLY, INC. EXPRESSED OR IMPLIED; STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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APPLICATION PROCEDURES

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TEMPERATURE

Air and Surface: 50°F Minimum/120°F Maximum
Material: 50°F Minimum/110°F Maximum

RELATIVE HUMIDITY: Can be applied at relative humidity up to 80%.

DO NOT APPLY WHEN TEMPERATURE CAN FALL TO WITHIN 5°F OF THE DEW POINT WITHIN 6 HOURS.

This product cures by evaporation only. It is very important that this product is not used when weather conditions are below 50F or when there is a chance that the temperature could fall below 32F within a 24 hour period after application. Do not apply this product if rain or dew is likely to occur before drying of product. Late afternoon application is not recommended if high humidity conditions exist, which could cause high moisture concentration of the surface overnight.

BRUSH: No reduction necessary. Use nylon/polyester brush. Avoid excessive brushing which may cause material to pull or streak.

ROLLER: No reduction necessary. Use 1/2" to 1-1/2" nap synthetic rollers. Keep a wet edge to avoid ripping which may change appearance. If ripping is a problem, extend lap time to after material has skinned. Avoid rapid rolling which causes bubbling of material.

AIRLESS SPRAY-VOLUME:

Output: 2 – 3 gal. per min.
Pressure: 3,000 – 4,000 psi
Spray Gun: Graco – Contractor rated for pressure
Tip: .021 -.037 reversible
Extension: 12" – 36" gun extension recommended

APPLICATION INSTRUCTIONS: Apply USP™ CERAM-A-MAX INSULATING ROOF COAT at the rate of 0.62 gallons to 0.75 gallons per 100 square feet per coat using a brush, roller, or airless spray equipment over applicable base coat or intermediate coat.

- Do not apply direct to any substrate without a proper compatible base coat or primer.

SPECIAL CONDITIONS: Mildew: Must be removed by power washing and broom scrubbing with a solution of household bleach or liquid detergent and water. Rinse clean and dry.

- Do not use without a vapor barrier in cryogenic tank or cold storage roofing applications.

Ponding Water: U.S. Ply, Inc.'s Warranties do not cover damage due to ponding water. Water-based coatings should not be applied on roofs collecting ponding water. The National Roofing Contractors Association considers ponding water on any roof unacceptable. (See the NRCA Roofing and Waterproofing Manual). Please consult U.S. Ply, Inc.'s Technical Department for any specific questions regarding the application of this product.

Surface Preparation: Surface to be coated must be clean, dry, and paintable. All dirt, grease, asphalt, loose particles, grime and film should be removed before applying.

Airless Application Equipment: This product may be brushed, rolled or sprayed. When using spray equipment, it is important that the following criteria are met: When using a spray pump, a 30:1 or greater fluid to air ratio capable of delivering 2-1/2 gallons or more per minute continuous is needed, as well as a filter screen of 30 mesh or smaller. If a fluid spray hose is used, it should be high pressure with designed working pressure to handle maximum pressure delivered by the spray pump. Inside lining or tube should be of such a material so it is unaffected by the coating and any solvents used for clean up. Additionally, the following criteria should be used for hoses: 3/8" minimum I.D. up to 75 feet; 1/2" minimum I.D. up to 200 feet; and 3/4" minimum I.D. over 200 feet. The larger I.D. sections of hose should be used from the pump out in all circumstances with additional hose size reductions as necessary. Material temperature should be 70°F or higher. In colder temperatures, material may require thermal assistance, such as heated hoses or band heaters to maintain the minimum temperature of 70°F.

If a gun hose whip is used, high pressure with adequate W.P.S.I. 3/8" I.D. X 6 feet with an appropriate lining or tube is recommended. When using a spray gun, we recommend the Graco Hydra Max or equivalent. High-pressure gun swivels are available and can reduce operator fatigue. Any spray tip should be a reversible self-cleaning type with an orifice size of .021 to .027 with a fan angle of 40 to 50 degrees. Always use components rated for pump pressures.

Cleanup Instructions: Clean up spills and spatters immediately with biodegradable citrus turpentine. After cleaning, flush spray equipment with water followed by propylene glycol to prevent unit from rusting.

SAFETY PRECAUTIONS: Do not get on skin or in eyes. Can cause severe burns. Wear protective eye and skin coverings. Refer to the MSDS sheet before use. For Chemical emergencies, spills, leaks, exposure, or accidents CALL: CHEMTREC DAY/NIGHT 1-800-424-9300.



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All values given are approximate and are subject to change without notice. There is no implied or express warranty given through these values or statements, nor are there any assertions that the product purchased has been individually tested to conform to these standards. Testing is performed on a random basis by "in-house" and independent "third party" evaluation for the purpose of classification and/or approval. Acceptance, purchase and selection of these products are the sole responsibility of the buyer or buyer's representative. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of the product. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY U.S. PLY, INC. EXPRESSED OR IMPLIED; STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.