



RCS™ 5000C
TECHNICAL DATA SHEET

100% Acrylic Roof Coating with Ceramic

Product Description

RCS-5000C is a premium quality, fluid-applied, elastomeric roof coating manufactured using advanced all-acrylic polymer technology. The fullyadhered seamless membrane exhibits outstanding adhesion, strength, flexibility, and water resistance.

Use RCS-5000C to extend the life of new and existing built-up asphalt, modified bitumen, asphalt shingle, single-ply, galvanized metal, concrete, and plywood roofs. RCS-5000C is ideal for flat deck roofs with positive drainage.

Performance Characteristics

- Superior exterior durability and UV light resistance
- Excellent adhesion to most roofing materials
- Seamless, fully-adhered elastomeric membrane inhibits leaks
- Excellent dirt pick-up resistance
- Low temperature flexibility down to -15°F

Companion Products

The following products may be beneficial and/or necessary to prepare the substrate properly. Refer to “Surface Preparation” and the companion Product Data Sheet for specific recommendations.

- Huntsman Building Solutions RCS 30 Rust-Inhibitive Metal Primer
- Huntsman Building Solutions RCS 40 Rinseable Primer
- Huntsman Building Solutions RCS 5500 Primer for TPO Membranes
- Tietex® Roofing Fabric or equivalent
- EternaBond® WebSeal Seam Tape or equivalent

Product Characteristics

Standard Colors:	5001 White, 5002 Gray, 5003 Tan Custom colors manufactured upon request. Limitations apply.	
Sheen	Flat	
Radiative Properties: (5001 White)	Solar Reflectance - Initial:	0.86
	Thermal Emittance - Initial:	0.89
Solar Reflective Index:	SRI - Initial:	105
Environmental Statement:	Complies with U.S. Federal Regulations concerning use of lead and/or mercury in paint	
Thinning:	Do not thin. Thinning will adversely affect application and product performance.	
Recommended Wet Film Per Coat:	16 to 24 mils	
Recommended Dry Film Per Coat:	8.8 to 13.2 mils	
Spread Rate:	Apply at a rate of 75 to 100 square feet per U.S. gallon per coat.	
Drying Time @ 77°F/ 50% R.h.:	To touch: 2 hours To recoat: 6 hours	

Application Equipment

RCS 5000 may be applied by medium nap rollers, brushes, or by conventional or airless spray equipment. Airless spray application is most efficient whereas rolling or brushing may be best for touch-up, flashing and edge terminations or to fill voids, pinholes, holidays or cracks. Brush: Synthetic filament. Roller: 1¼” nap. Airless Spray: Equipment capable of maintaining a minimum of 0.027” or greater orifice tips with 2,300 PSI at the tip. Filter screens should be thirty-mesh or larger.

Contact Huntsman Building Solutions Technical Service personnel for specific recommendations, pricing and availability of spray and auxiliary equipment.

Physical Properties

Properties	Test Method/Requirements	Value
Percent Solids by Weight:	ASTM D 1644	72.4% ±3%
Percent Solids by Volume:	ASTM D 2697	56.2% ±3%
Viscosity:	ASTM D 562	110 KU ± 10 KU
VOC:	0.17 lbs/gal (20.2 g/l)	
Flash Point:	None	

Tensile Strength/Elongation at Break:	ASTM D 2370	Tensile Strength @ 73°F: 286 psi
		Elongation @ 73°F: 155%
Water Swelling:	ASTM D 471	15%
Wet Adhesion:	ASTM C 794/D 903	Galvanized Metal: 7.1 pli
		Concrete: 9.2 pli
		EPDM: 3.2 pli
		SBS Granule: 2.0 pli
Tear Resistance	ASTM D 624	(DIE C): 74.3 LBF/IN
Fungi Resistance Rating:	ASTM G 21	0
Low Temperature Flex, 1/2" Mandrel, -15°F after 1000 Hours Accelerated Weathering:	ASTM D 522	PASS

Credentials/Certifications

- Underwriters Laboratories Inc. (UL 790) Approved
- Cool Roof Rating Council (CRRC) Listed
- CRRC Product ID: 5001 White - 0770-0003
- Miami-Dade County Approved
- NOA 17-0427.09, Miami-Dade County, Florida
- Energy Star Approved
- Meets California Title 24 Requirements

Surface Preparation & Priming

All surfaces must be clean, dry, and sound; free of loose and peeling coatings, grease, oil, efflorescence, curing agents, form release agents, dirt, mildew, and other detrimental foreign matter that will adversely affect adhesion and product performance. When appropriate, pressure-wash the substrate to remove surface contaminants. Power-broom, vacuum, air-blast, or use other methods to prepare the substrate further. Ensure removal of all mildew and other organic growth. Various Single-Ply Membranes: (PVC, CSPE, etc.) RCS 5000C adheres well to most clean, dry, single-ply membranes. Apply a test area and allow RCS 5000C to dry one week before testing adhesion. Galvanized Metal: Clean with a commercial grade emulsifying detergent. Thoroughly rinse with clean water. If loose mill scale, or more severe corrosion is present, prepare according to Hand Tool Cleaning SSPC-SP2 or Power Tool Cleaning SSPC-SP3. Prime corrosion with RCS 30 100% Acrylic Rust-Inhibitive Metal Primer. Concrete: Allow new concrete to cure for 30 days. The pH of the substrate should be less than 9 before coating. Very dense, nonporous, or chemically treated concrete may require etching or abrasive blasting to promote adhesion. Note: Do not apply RCS 5000C to lightweight insulating concrete. Plywood: Prime knots and resinous areas with shellac or a 100% Acrylic Exterior Latex Wood Primer. Existing Coatings: RCS 5000C is compatible with acrylic, urethane, and various other roof coatings. Note: Do not use RCS 5000C on Silicone or Aluminized Coatings. Contact Huntsman Building Solutions for use on non-listed coatings.

Application Guidelines

RCS 5000C requires complete evaporation of water to cure. Lower temperatures and higher humidity prolong drying and cure time. Apply only when air, surface, and product temperatures are above 50°F and the substrate is at least 5°F above the dew point. Do not apply when temperatures may drop below 50°F within 24 hours after application. Avoid application late in the day when dew or condensation is likely to form or when rain is expected. It is recommended that RCS 5000 be sprayed in multiple coats applied in multi-directional (north-south, east-west) passes to ensure uniform film build. Backrolling sprayed material may be necessary to fill pinholes in substrate. Final cured dry film thickness must be free of voids, pinholes, holidays, cracks or blisters. Apply in a minimum of 2 coats with each coat at a maximum rate of 1.5 gallons per 100 square feet, for a total minimum coating rate of 3 gallons per 100 square feet. Additional coats of 1.5 gallons maximum per 100 square feet may be applied to obtain the desired final thickness of coating. The minimum allowable dry mil thickness shall be no less than 24 mils. Granules may be broadcast into the final coating application at a rate of 35 – 40 pounds per 100 square feet. No foot traffic shall be permitted on the finished coated surface for 24 - 72 hours depending on curing conditions after application.

CLEAN UP: Promptly clean hands, tools, and equipment with warm soapy water.

Product Handling:

Some separation may occur during shipment and storage, therefore the contents of each container should be thoroughly power mixed for ten (10) to fifteen (15) minutes before application. Product should never be thinned. RCS 5000C is a water-based elastomeric acrylic coating which will freeze and become unusable at temperatures below 32°F. PROTECT FROM FREEZING DURING SHIPMENT AND STORAGE. Do not store material at temperatures below 50°F.

SHELF LIFE: One year from manufactured date when stored properly.

Packaging

U.S. MEASURES: 5-gal. pails, 55-gal. drums & 275-gal. totes.
WEIGHT PER U.S. GALLON: 11.65 lbs.

Limitations

Do not use on surfaces demonstrating hydrostatic or high vapor pressure. This product is not intended for use in areas where ponding water may be present. Ponding water issues must be eliminated prior to the application of this coating.

General Health & Safety Precautions

This product is intended for use by trained professional personnel. Safety Data Sheets are available and any individual who may come in contact with these products should read and understand the S.D.S. In case of emergency contact CARECHEM EMERGENCY NUMBER at (866) 928-0789.

WARNING: Avoid eye contact with the liquid or spray mist. Applicators should wear protective clothing, gloves and use protective equipment on face, hands and other exposed areas.

EYE PROTECTION: Safety glasses, goggles, or a face shield are recommended.

SKIN PROTECTION: Chemical resistant gloves are recommended. Cover as much of the exposed skin area as possible with appropriate clothing.

RESPIRATORY PROTECTION is MANDATORY! Respiratory protective equipment, impervious foot wear and protective clothing are required at all times during spray application. Contact Huntsman Building Solutions for a copy of the Respiratory Protection Program developed by OSHA.

INGESTION: Do not take internally. Consider the application and environmental concentrations in deciding if additional protective measures are necessary.

DISCLAIMERS

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