



RCS™ 650
TECHNICAL DATA SHEET

100% Acrylic Roof Coating

Product Description

RCS 650 is a fluid-applied, elastomeric roof coating designed to extend the life of new and existing built-up asphalt, modified bitumen, asphalt shingle, single-ply, galvanized metal, concrete, and plywood roofs. RCS 650 is ideal for low slope roofs with positive drainage.

RCS 650 is formulated using advanced 100%-acrylic polymer technology. The fully-adhered seamless membrane exhibits outstanding adhesion, strength, flexibility, and water resistance, in arid environments.

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

Product Characteristics

Standard Colors:	651 White, 652 Gray, 653 Tan Custom colors manufactured upon request. Limitations apply.	
Sheen	Flat	
Radiative Properties:	Solar Reflectance - Initial:	0.86
	Thermal Emittance - Initial:	0.90
Solar Reflective Index:	SRI - Initial:	109
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 650 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.

Properties	Test Method/Requirements	Value
Percent Solids by Weight:	ASTM D 1644	66% ±3%
Percent Solids by Volume:	ASTM D 2697	53% ±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 @73°F	ASTM D 2370	Tensile Strength: 1,000 psi
		Elongation: 122%
Permeance:	ASTM D 1653	28 PERMS @ 20 DRY MILS, 73.4°F/50% RH, Inverted
Water Swelling:	ASTM D 471	10 %
Wet Adhesion:	ASTM C 794/D 903	7.1 pli 9.2 pli 2.0 pli
- Galvanized Metal:		
- Concrete:		
- SBS Granule:		

Credentials

- Meets California Title 24 Requirements
- Cool Roof Rating Council (CRRC) Listed (Pending)

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 650 adheres well to most clean, dry, single-ply membranes. Apply a test area and allow RCS 650 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 650 to lightweight insulating concrete. Plywood: Prime knots and resinous areas with shellac or a 100% Acrylic Exterior Latex Wood Primer. Existing Coatings: RCS 650 is compatible with acrylic, urethane, and various other roof coatings. Note: Do not use RCS 650 on Silicone or Aluminized Coatings. Contact Huntsman Building Solutions for use on non-listed coatings.

Application Guidelines

RCS 650 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 650 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 650 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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