

OR ACR42

ORACR42 is a high-solids, UV resistant, single-component water-borne acrylic elastomeric top coating. ORACR 42 has excellent thermal conductivity performance, fungus & mildew growth resistance as an ASTM D6083, and is a CRRC compliant roof coating.

ORACR42 is formulated to have excellent adhesion, ease of application, dirt pickup resistance and low temperature flexibility.

Recommended Uses

- Polyurethane Roof Foam
- Acrylic Recoat
- Top coat over polyurethane base

Packaging

5-gallon pail
55-gallon drum
250-gallon tote

Color

White, Off White, Light Gray, Light Tan, and Medium Gray

Technical Data

Property	ASTM-Test Method	Requirement	Value
Total Solids by Volume	ASTM D2697	>50	54% ± 2
Total Solids by Weight	ASTM D1644	>60	66% ± 2
Flash Point	ASTM D56	No Reference	>212°F (100°C)
Initial Elongation	ASTM D2370	100 Minimum	125% ± 25
Initial Tensile Strength	ASTM D2370	200 Minimum	310 ± 50 psi
Elongation after Accelerated	ASTM D2370	100 Minimum	125% ± 25
Tear Resistance Die C	ASTM D624	>60	70 lbs/in
Flexibility 1/8" Mandrel	ASTM D522	-15°F (-26°C)	Pass
Impact Resistance	ASTM D2794	No Reference	>160
Tension Set @ 100%	ASTM D412	No Reference	0%
Durometer Hardness: Shore A	ASTM D2240	No Reference	65 – 75
Permeance	ASTM D1653	50 Maximum	6 perms
Water Swelling	ASTM D471	20 Maximum	10
Fungi Resistance (Zero = No Growth)	ASTM G21	Zero Rating	Zero Rating
1000 hr Accelerated Weathering	ASTM D4798	No Cracking or Checking	No Cracking or Checking
8000 hr Accelerated Weathering	ASTM D4798	No Cracking or Checking	No Cracking or Checking
Dry Adhesion	ASTM C794, D903	No Reference	3.5 pli
Wet Adhesion	ASTM C794, D903	2 Minimum	2.9 pli
The information contained herein is for purposes of identifying the product and does not constitute a warranty that the product will conform to that description. Product specifications and performance will vary depending on application methodologies, raw materials and other factors.			

Credentials and Certifications

ORACR 42 is classified as Class A by Underwriters Laboratories in accordance with UL-790 and is an integral component of numerous roof deck assemblies under UL File #14330.

ORACR 42 is evaluated by ICC-ES in ESR 3239 and Intertek in CCRR 1026.

ORACR 42 is listed by the California State Fire Marshal.

ORACR 42 exceeds all the minimum requirements for ASTM D6083 and is Title 24 compliant.

Coverage Rate (Over Spray Foam)

Property	Value
Coverage	8.6 mils at 1 gallon per 100 square feet
Performance, 10 years	3 to 4 gallons per 100 square feet
Performance, 15 years	4 to 5 gallons per 100 square feet
Performance, 20 years	5 to 6 gallons per 100 square feet
Dry Time	4 hours
Recoat Time	12 hours
Final Cure	30 days
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ORACR 42, when used as a protective membrane over polyurethane foam, should be applied to a minimum of 24 dry mils in two applications. Coarse or textured surfaces may require more coating to obtain the desired dry film thickness.

Requirements

ORACR 42 is a water borne acrylic elastomeric which should be applied only by trained or manufacturer-approved roofing experts familiar with the properties of this material.

Equipment

ORACR 42 may be applied by brush or roller, and by airless spray equipment.

Application

Surfaces to which ORACR 42 is to be applied shall be free of water, grease, oils, dirt, debris, and other foreign materials.

Apply ORACR 42 at temperatures above 50°F (10°C). Apply only when weather conditions will permit drying before rain, dew or freezing temperatures. Cool temperatures and high humidity may retard cure.

ORACR 42 must be mixed thoroughly prior to application to assure uniformity. All special colors should be mixed prior to application to assure uniform dispersion of the pigments.

ORACR 42, when applied at 22 wet mils and at conditions of 75°F (24°C) and 50% relative humidity, will dry to the touch in 4 hours. Colder weather and/or higher humidity will retard curing, where as hotter weather and/or lower humidity will accelerate curing.

Personal Protective Equipment

Since ORACR 42 is atomized into a very fine particle distribution during spray application, it is essential that maximum effort is made to protect the spray mechanic and others near the workplace from undue exposure.

The best form of protection against organic solvents is the use of Type C organic vapor cartridge respirators. To prevent excessive skin contact with the sprayed product, we recommend use of fabric coveralls and neoprene or other resistant gloves. Wear safety glasses or OSHA-approved protective goggles.

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Job-Site Protection

Overspray from ORACR 42 can carry considerable distances and attention should be given to the following:

1. Post warning signs a minimum of 100 feet from the work area.
2. Cover all intake vents near the work area.
3. Minimize or exclude all personnel not directly involved with the spray application.
4. No welding, smoking or open flames.
5. Have CO2 or other dry chemical fire extinguisher available at the jobsite.
6. Provide adequate ventilation.

Shelf Life and Storage

ORACR 42 has a shelf life of one (1) year from date of manufacture in original, factory-sealed containers when stored indoors at a temperature between 40-80°F (4.4-26°C). Keep containers closed and store in a dry, cool place away from direct sunlight, heat, sparks, open flame, and moisture.

Freight Classification

Liquid Plastic Material - NOIBN

Health and Safety

Oak Ridge Foam & Coating Systems, Inc is committed to the health and safety of our customers. Oak Ridge Foam & Coating Systems, Inc products shall only be installed by certified contractors. Applicators are required to follow all proper handling, safety and installation procedures. Safety Data Sheets (SDS) are available on this material. Any individual who may come in contact with these products should read and understand the SDS.

Vapor Inhalation

Effects of overexposure to vapor are characterized by nasal and respiratory irritation, dizziness, nausea, headache, fatigue, possible unconsciousness or even asphyxiation. Vapor inhalation problems are characterized by coughing, shortening of breath and tightness in the chest. Anyone exhibiting these types of symptoms should be immediately removed from the workplace and administered oxygen or fresh air. If the condition is prolonged or extreme, SUMMON EMERGENCY TRAINED MEDICAL ATTENTION IMMEDIATELY.

Skin Contact

Skin contact with liquid components can result in a rash or other irritation. Wash the affected skin area with water. Wipe residual liquid from the skin with a clean cloth, then wipe the affected area with 30% solution of rubbing alcohol. Follow the alcohol wipe with repeated washings with soap and water. If a rash or other irritation develops, see a physician.

Eye Contact

Eye Contact with liquid or sprayed components can result in corneal burns or abrasions. Upon exposure, eyes should be flushed with water for an extensive period. SUMMON EMERGENCY TRAINED MEDICAL ATTENTION IMMEDIATELY.

Technical Services

Additional information, such as brochures, technical assistance, roof energy evaluations, life cycle cost analysis, and other roof management services are also available from an Oak Ridge Foam & Coating Systems, Inc. Technical Consultant.

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