



Cat 5[®] Rain Screen

air and waterproof barrier

Cat 5[®] Rain Screen is part of the family of PROSOCO R-Guard[®] products developed to prevent the movement of water and air through building envelopes. Utilize Cat 5[®] Rain Screen as the primary air and water barrier over above grade wall assemblies prepared with R-Guard Joint & Seam Filler and/or R-Guard FastFlash[®].

OVERVIEW

PROSOCO R-Guard[®] Cat 5[®] Rain Screen Air & Water Resistive Barrier is a fluid applied, waterproofing, and air and water barrier membrane that combines the best of silicone and polyurethane properties. This single component, Silyl-Terminated-Poly-Ether (STPE) is specially formulated to meet the unique requirements of pressure-equalized rain screen construction.

The roller applied air and waterproof barrier produces a highly durable, seamless, elastomeric weatherproof membrane on exterior sheathing behind open-jointed or vented rain screen cladding. Cat 5[®] Rain Screen is proven to prevent water and air penetration of the building envelope in conditions ranging from everyday weather to the drenching rains and 155 mph winds of a Category 5 hurricane.

Cat 5[®] Rain Screen can be applied in unfavorable weather conditions to dry or damp substrates. This feature eliminates many weather-related construction delays and accelerates the "drying in" of new buildings. The durable, elastomeric membrane adheres to most surfaces, is immediately waterproof and is compatible with most sealants and waterproofing or air barrier components.

SPECIFICATIONS

For all PROSOCO product specifications visit www.prosoco.com.

ADVANTAGES

- Solvent free. Isocyanate free. Phthalate free. Complies with all VOC regulations.
- Silane functional polymer provides superior long term adhesion, crack bridging and weathering characteristics. Self seals fastener penetrations.
- Bonds to most common building materials without priming to produce a durable, weatherproof membrane which will not tear or displace when subjected to wind loads during construction. Easy to repair if damaged.
- Will not tear or lose effectiveness when exposed to weather during construction.
- Designed for continuous, intermittent UV exposure under ventilated cavity, rain screen applications.
- Waterproof on application and for the life of the building. Creates an unmatched drainage plane.
- Service temperature from -75°F to 300°F (-59°C to 149°C).
- Single component – saves time.
- Easy roller application in all climates.
- Bonds and cures in wet weather and on damp substrates.
- No shrinkage. No staining. No yellowing.
- Breathable. Allows damp surfaces to dry.
- Will not support mold growth.
- Dark bronze color keeps the backup wall unseen through rain screen joints or vents.
- Stops penetration of air and water under normal and extreme weather conditions.
- Illustrations depicting the use of PROSOCO R-Guard[®] products are available at www.prosoco.com by downloading the R-Guard Installation Guidelines.

Limitations

- Not for use as a liquid flashing membrane. Use R-Guard FastFlash[®].
- Not for use in place of appropriate through-wall flashing.
- Not for use below grade or in locations designed to be continuously immersed in water.

REGULATORY COMPLIANCE

VOC Compliance

PROSOCO R-Guard[®] Cat 5[®] Rain Screen is compliant with the following national, state and district VOC regulations:

- US Environmental Protection Agency
- California Air Resources Board SCM Districts
- South Coast Air Quality Management District
- Maricopa County, AZ
- Northeast Ozone Transport Commission

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TYPICAL TECHNICAL DATA

R-GUARD CAT 5[®] RAIN SCREEN

FORM	dark bronze heavy liquid
SPECIFIC GRAVITY	1.40–1.55
pH	Not applicable
WT/GAL	12.3 lbs
TOTAL SOLIDS	99%
VOC CONTENT	<30 g/L
FLASH POINT	>200°F (>93°C)
FREEZE POINT	Not applicable
SHELF LIFE	1 year in tightly-sealed, unopened container

CURED PROPERTIES

Hardness, Shore A	20–25
Tensile Strength	100 psi
Elongation at Break	250%
Water Vapor Transmission	18 perms (ASTM E 96)
Transfer-Free Time	2–4 hours

PERFORMANCE AT 12 MILS*

Air Infiltration	Meets and exceeds air barrier performance requirements (ASTM E 2178)
Air Leakage of Air Barrier Assembly	Passed: 0.000 L/s·m ² at 300 Pa (ASTM E 2357)
Water Penetration (static pressure)	No water penetration (ASTM E 331)
Fastener Sealability	No water infiltration (ASTM D 1970)
Surface Burning	Flame Spread: 10 (ASTM E 84) Smoke Developed: 0 NFPA and ICC Class A Building Material

*Unless otherwise required by the referenced test method, test results cited were achieved when the product was applied at 12 wet mils to DensGlass[®] gold fiberglass mat gypsum sheathing. Please refer to Page 4 for a complete list of performance test results.

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PREPARATION

Protect people, vehicles, property, plants and all other surfaces not intended to receive Cat 5[®] Rain Screen. Apply to clean surfaces free of contaminants. Chemical residues, surface coatings or films may adversely affect adhesion. Remove and replace damaged sheathing. On exterior sheathing, treat cracks with R-Guard Joint & Seam Filler and/or R-Guard FastFlash[®], as needed.

In rough openings and outside corners, prime all raw gypsum board edges with R-Guard GypPrime. Use R-Guard Joint & Seam Filler and/or R-Guard FastFlash[®] on joints, seams and all other interfaces, as needed. Let Joint & Seam Filler and/or FastFlash[®] skin over before applying Cat 5[®].

Surface and Air Temperatures

Surface and ambient temperatures should be 40°F (4°C) and rising and below 110°F (43°C) during application and drying. Wind and high temperatures will accelerate drying. **Hot Weather Precautions:** If air or surface temperatures exceed 95°F (35°C), apply to shaded surfaces and before daytime air and surface temperatures reach their peak. Hot surfaces may be cooled with a mist of fresh water. Keep containers closed and out of direct sunlight when not in use. **Cold Weather Conditions:** May be applied to frost-free substrates at temperatures below 32°F (0°C). Product will not start curing and drying until temperature rises to and remains above 32°F (0°C). **Low Humidity Conditions:** Curing may take longer than 12 hours. Lightly misting treated surfaces with fresh water will accelerate curing. **Uncured material may delay construction.**

Though R-Guard Cat 5[®] Rain Screen may be applied to damp surfaces and tolerates rain immediately after application, do not apply to surfaces with standing water or frost.

Equipment

Apply using standard 1/4 to 3/8 inch nap rollers.

Storage & Handling

Store in a cool, dry place. Keep container tightly closed when not dispensing. Do not open container until preparation work has been completed. Do not alter or mix with other chemicals. When stored at or below 80°F (27°C) R-Guard Cat 5[®] Rain Screen has a shelf life of 12 months after the date of manufacture. This shelf life assumes upright storage of factory-sealed containers. Do not double stack

ALWAYS TEST

ALWAYS TEST a small area of each surface to confirm suitability and desired results before starting overall application. Test with the same equipment, recommended surface preparation and application procedures planned for general application.

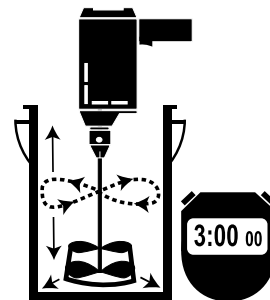
pallets. Dispose of unused product and container in accordance with local, state and federal regulations.

APPLICATION

Before use, read "Preparation" and "Safety Information."

Dilution & Mixing

Apply as packaged. Do not dilute or alter, or use for applications other than specified. Using a low-speed drill and paddle, mix well from top to bottom and side-to-side for a minimum of 3 minutes before use. Avoid mixing air into the product.



Coverage Rates

Coverage rates will vary depending on surface porosity, moisture uptake, and other factors. Unless otherwise required by the referenced test method, test results cited were achieved when the product was applied at 12 wet mils to DensGlass[®] gold fiberglass mat gypsum sheathing. Many gypsum sheathing products require additional material to achieve hide and the desired mil thickness for a pinhole free coating. In some cases, two coats may be required. Actual rates must be determined through mock-up applications.

For more information regarding coverage rates as it pertains to glass-mat sheathing, please consult the AMT Laboratories Technical Bulletin available at www.prosoco.com/AirBarriers.

PROSOCO R-Guard[®] Cat 5[®] Rain Screen is sold in 5 gallon containers.

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R-GUARD CAT 5 [®] RAIN SCREEN	COVERAGE RATES
EXTERIOR GYPSUM BOARD OSB PLYWOOD	50–100 SQ.FT. PER GALLON
CMU	50–80 SQ.FT. PER GALLON

Application Instructions

1. Roller apply to exterior wall assembly using vertical strokes with a slight diagonal slant. Ensure there are no pinholes, voids or gaps in the membrane. **NOTE:** If air or surface temperatures exceed 95°F (35°C), apply to shaded surfaces and before daytime air and surface temperatures reach their peak.
2. Seal masonry ties and properly prepared penetrations as work progresses. Some sheathing will require additional material to achieve a continuous coating. Inspect surface after initial application and touch-up as needed.
3. Allow product to cure and dry. Wind, high temperatures and high humidity will accelerate drying. Low temperatures and low relative humidity will extend cure time. Lightly mist treated surfaces with fresh water to accelerate cure. For cladding gaps >1 inch, it is recommended to apply a second coat in the same manner as the first coat and allow product to cure and dry.
4. Inspect membrane before installing cladding. Fill deep gouges with R-Guard FastFlash[®] or Joint & Seam Filler. Repair any punctures or damaged areas. If the surface of the primary air barrier or liquid flashing membrane is damaged during construction, remove all loose surface contaminants before selective re-coating with additional Cat 5[®] Rain Screen or FastFlash[®]. Overlap repairs, penetration treatments, transitions, rigid flashing and other air barrier components to ensure positive drainage and continuity of the air and water-resistive barrier.

Cleanup

Clean tools and equipment with mineral spirits or similar solvent immediately after use.

Curing and Drying

At 70°F (21°C) and 50% relative humidity, product skins in approximately 2 hours and cures in approximately 12 hours when applied at 12 mil thickness.

R-Guard Cat 5[®] Rain Screen is moisture curing. Low temperatures and low relative humidity slow cure time. Wind, high temperatures and high humidity accelerate drying.

SAFETY INFORMATION

PROSO CO R-Guard[®] Cat 5[®] Rain Screen contains calcium carbonate and may cause eye and skin irritation. Use with adequate ventilation, safety equipment and job site controls during application and handling. Read the full label and MSDS for precautionary instructions before use.

First Aid

Eye Contact: Immediately rinse eyes with water. Remove any contact lenses. Hold eyelids apart to ensure rinsing of the entire surface of the eyes and lids with water. Continue flushing eyes with running water for at least 15 minutes. Get medical attention if irritation develops.

Skin Contact: Wash affected areas with large amounts of running water and soap for 15 minutes. Remove contaminated clothing and shoes. Wash clothing and decontaminate shoes before re-use. Get medical attention if irritation develops and persists.

Inhalation: Remove from area to fresh air. If not breathing, clear airway and start mouth-to-mouth artificial respiration or use a bag mask respirator. Get immediate medical attention. If victim is having trouble breathing, transport to medical care and if available, give supplemental oxygen.

Ingestion: DO NOT induce vomiting. DO NOT give anything by mouth to an unconscious or convulsing person. Get immediate medical attention.

24-Hour Emergency Information: INFOTRAC at 800-535-5053

WARRANTY

Information and recommendations are based on our research and the research of others, and are believed to be accurate. No guarantee of their accuracy is made because we cannot anticipate every application or variations encountered in building surfaces, job conditions and methods used. The purchasers shall make their own tests to determine the suitability of such products for a particular purpose. PROSO CO, Inc. warrants this product to be free from defects.

Where permitted by law, PROSO CO makes no other warranties with respect to this product, express or implied, including without limitation the implied warranties of merchantability or fitness for particular purpose. PROSO CO's liability shall be limited in all events to supplying sufficient product to re-treat the specific areas to which defective product has been

BEST PRACTICES

R-Guard Cat 5[®] Rain Screen bonds tenaciously. Carefully protect all nearby surfaces not intended for treatment. Immediately clean up incidental contact using mineral spirits or similar solvent.

On R-Guard Cat 5[®] Rain Screen projects, always use Joint & Seam Filler, FastFlash[®] and AirDam[®] where required. Do not substitute.

Prepare all rough openings with R-Guard Joint & Seam Filler and/or FastFlash[®]. Allow to skin over before installing Cat 5[®] Rain Screen. Overlap Cat 5[®] Rain Screen onto FastFlash[®] by 2 inches or more. A slightly diagonal vertical application stroke provides best coverage.

Coverage rates will vary depending on surface porosity, moisture uptake, and other factors. Many gypsum sheathing products require additional material to achieve hide and the desired mil thickness for a pinhole free coating. In some cases, two coats may be required. Actual rates must be determined through mock-up applications.

For more information regarding coverage rates as it pertains to glass-mat sheathing, please consult the AMT Laboratories Technical Bulletin available at www.prosoco.com/AirBarriers.

Hot Weather Precautions: If air or surface temperatures exceed 95°F (35°C), apply to shaded surfaces and before daytime air and surface temperatures reach their peak. Hot surfaces may be cooled with a mist of fresh water. Surfaces may be damp but must be free of standing water before application. Keep containers closed and out of direct sunlight when not in use. **Cold Weather Conditions:** May be applied to frost-free substrates at temperatures below 32°F (0°C). Product will not start curing and drying until temperature rises to and remains above 32°F (0°C). **Low Humidity Conditions:** Curing may take longer than 12 hours. Lightly mist treated surfaces with fresh water to accelerate cure. **Uncured material may delay construction.**

Wind, high temperatures and high humidity accelerate drying. At 70°F (21°C) and 50% relative humidity, product will skin in approximately 2 hours and cure in approximately 12 hours when applied at 12 mil thickness.

Low temperatures and low relative humidity will extend cure time. Mist surfaces with fresh water to accelerate cure.

Illustrations depicting the use of PROSO CO R-Guard[®] products are available at www.prosoco.com by downloading the R-Guard Installation Guidelines.

To schedule field technical support, contact your PROSO CO Technical Customer Care toll-free at 800-255-4255. Field visits by PROSO CO personnel are for the purpose of making technical recommendations only. PROSO CO is not responsible for providing job site supervision or quality control. Proper application is the responsibility of the applicator.

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applied. Acceptance and use of this product absolves PROSO CO from any other liability, from whatever source, including liability for incidental, consequential or resultant damages whether due to breach of warranty, negligence or strict liability. This warranty may not be modified or extended by representatives of PROSO CO, its distributors or dealers.

CUSTOMER CARE

Factory personnel are available for product, environmental and job-safety assistance with no obligation. Call 800-255-4255 and ask for Customer Care - technical support.

Factory-trained representatives are established in principal cities throughout the continental United States. Call Customer Care at 800-255-4255, or visit our web site at www.prosoco.com, for the name of the PROSO CO R-Guard[®] representative in your area.

ICC-ES AC212¹ – ACCEPTANCE CRITERIA FOR WATER-RESISTIVE COATINGS USED AS WATER-RESISTIVE BARRIERS OVER EXTERIOR SHEATHING			
Test	Method	Criteria	Results
Tensile Bond	ASTM C 297	Minimum 15 psi (105 kPa)	Pass
Freeze-Thaw	ICC-ES AC212	No cracking, checking, crazing, erosion, delamination or other deleterious effects	Pass
Water Resistance	ASTM D 2247	No cracking, checking, crazing, erosion, delamination, or other deleterious effects	Pass
Water Vapor Transmission	ASTM E 96 Wet Cup	Measure	18 perms at 12 mils
Water Penetration	ASTM E 331	No visible water penetration at the sheathing joints as viewed from the back of the panel	Pass
Structural, Racking, Restrained Environmental Conditioning & Water Penetration	ASTM E 1233 A ASTM E 72 ICC-ES AC212 ASTM E 331	No cracking of the coating	Pass
Weathering	ICC-ES AC212 AATCC ² 127	No cracking of the coating; no water penetration	Pass
Air Permeance	ASTM E 2178	≤ 0.02 L / s·m ² at 75 Pa (≤ 0.004 cfm / ft ² at 1.57 psf)	Pass: 0.0009 L / s·m ² at 75 Pa (0.00018 cfm / ft ² at 1.57 psf)
ABAA: AIR BARRIER ASSOCIATION OF AMERICA ACCEPTANCE CRITERIA FOR LIQUID APPLIED MEMBRANES			
Test	Method	Criteria	Results
Air Permeance	ASTM E 2178	≤ 0.02 L / s·m ² at 75 Pa (≤ 0.004 cfm / ft ² at 1.57 psf)	Pass: 0.0009 L / s·m ² at 75 Pa (0.00018 cfm / ft ² at 1.57 psf)
Air Leakage of Air Barrier Assemblies	ASTM E 2357	≤ 0.2 L / s·m ² at 75 Pa (≤ 0.04 cfm / ft ² at 1.57 psf)	Pass: 0.0105 L / s·m ² at 75 Pa (0.0021 cfm / ft ² at 1.57 psf)
Water Resistance	AATCC ² 127	No water infiltration after exposure to 55 cm head of water for 5 hours	Pass
Fastener Sealability	ASTM D 1970	No water infiltration	Pass
Pull Adhesion	ASTM D 4541	110 kPa (16 psi) or substrate failure	Pass
ICC-ES AC212	Entire Suite of Tests	Pass	Pass
Crack Bridging	ASTM C 1305	Pass	Pass
Water Vapor Permeance at applied thickness	ASTM E 96	Report in Ng/(Pa·s·m2)	Wet: 1015 Ng/(Pa·s·m2) Dry: 860 Ng/(Pa·s·m2)
FIRE TESTING			
Test	Method	Criteria	Results
Fire Propagation Characteristics of Exterior Non-load-bearing Wall Assemblies	NFPA ³ 285	Must resist flame propagation and flame spread	Pass ⁴
Determining Ignitability of Exterior Wall Assemblies	NFPA ³ 268	Cannot exhibit sustained flaming when exposed to radiant heat flux of 12.5 kW/m ² ± 5% for 20 minutes	Pass ⁵
Surface Burning Characteristics	ASTM E 84	Criteria for ICC and NFPA Class A Building Material: Flame Spread ≤ 25 Smoke Developed ≤ 450	Meets Class A Building Material Flame Spread: 10 Smoke Developed: 0

All testing conducted by independent, accredited laboratories.

NOTES:

- 1: International Code Council Evaluation Service Acceptance Criteria 212
- 2: American Association of Textile Chemists and Colorists
- 3: National Fire Protection Association
- 4: Southwest Research Institute Report No. 01.17421.01.001
- 5: Southwest Research Institute Report No. 01.17421.01.002

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- 5: Southwest Research Institute Report No. 01.17421.01.002