



PROSOCO®

**R-Guard®**

AIR & WATER BARRIER



INDOOR ADVANTAGE GOLD  
BUILDING MATERIALS

# Cat 5™ Rain Screen

PROSOCO R-Guard® Cat 5™ Rain Screen 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-Polymer (STP) is specially formulated to meet the unique requirements of pressure-equalized rain screen construction.

Cat 5™ Rain Screen can be sprayed or roller applied to produce 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.

## ADVANTAGES

- ICC Evaluation Service Report No. ESR-3416.
- Silane functional polymer provides superior long term adhesion, crack bridging and weathering characteristics. Self seals fastener penetrations.
- May be spray applied or rolled.
- Bonds and cures in wet weather and on damp substrates.
- Bonds to most common building materials without priming to produce a durable, weatherproof membrane. Easy to repair if damaged.
- Will not tear or lose effectiveness when exposed to weather and UV during construction for up to 12 months.
- Designed for use under typical ventilated cavity, rain screens.

- **Waterproof on application and for the life of the building. Creates an unmatched drainage plane.**
- **Dark bronze color keeps the backup wall unseen through rain screen joints or vents.**
- **Single component – saves time.**
- **Breathable. Allows damp surfaces to dry.**
- **Compatible with most sealants and waterproofing or air barrier components.**
- **Air Barrier Association of America (ABAA) approved product.**
- **Solvent free. Isocyanate free. Phthalate free.**
- **No shrinkage. No staining. No yellowing.**
- **Will not support mold growth.**
- **Stops penetration of air and water under normal and extreme weather conditions.**
- **Illustrations depicting the use of PROSOCO R-Guard® products are available at [prosoco.com](http://prosoco.com) by downloading the R-Guard Installation Guidelines.**

## Limitations

- Not for use as a liquid flashing membrane. Use R-Guard FastFlash®.
- **ICF: Not for use with Insulated Concrete Forms. Contact PROSOCO for recommendations.**
- Not for use in place of appropriate through-wall flashing. See R-Guard SS ThruWall product literature.
- Not for use below grade or in locations designed to be continuously immersed in water.
- May have slight incompatibility with some asphaltic materials or butyl adhesives. Always test first.

## SAFETY INFORMATION

Always read full label and SDS for precautionary instructions before use. Use appropriate safety equipment and job-site controls during application and handling.

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

# Product Data Sheet

## R-Guard Cat 5™ Rain Screen

### REGULATORY COMPLIANCE

#### VOC Compliance

R-Guard Cat 5™ Rain Screen is compliant with the US Environmental Protection Agency's AIM VOC regulations. Visit [www.prosoco.com/voc-compliance](http://www.prosoco.com/voc-compliance) to confirm compliance with individual district or state jurisdictions.

### TYPICAL TECHNICAL DATA

|                         |                                                 |
|-------------------------|-------------------------------------------------|
| <b>FORM</b>             | viscous liquid, mild odor<br>dark bronze color  |
| <b>SPECIFIC GRAVITY</b> | 1.36                                            |
| <b>WT/GAL</b>           | 11.3 lbs                                        |
| <b>TOTAL SOLIDS</b>     | 99%                                             |
| <b>VOC CONTENT</b>      | <30 g/L                                         |
| <b>FLASH POINT</b>      | >200° F (>93° C)                                |
| <b>SHELF LIFE</b>       | 1 year in tightly sealed,<br>unopened container |

### Cured Properties

|                             |                                                    |
|-----------------------------|----------------------------------------------------|
| <b>Hardness, Shore A</b>    | 20–25                                              |
| <b>Tensile Strength</b>     | >100 psi                                           |
| <b>Elongation at Break*</b> | >400% (ASTM D 412)                                 |
| <b>Transfer Free Time</b>   | 1–2 hours at 73°F (23°C),<br>50% Relative Humidity |

\*Elongation per ASTM D 412 is not a requirement of the Air Barrier Association of America's (ABAA) Acceptance Criteria for Liquid Applied Membranes nor is it a requirement of the International Code Council Evaluation Service's Acceptance Criteria for Water-Resistive Coatings used as Water-Resistive Barriers over exterior Sheathing (ICC-ES AC212). Elongation is not a requirement of the AAMA 714 Specification for Liquid Applied Flashing used to Create a Water-Resistive Seal Around Exterior Wall Openings. There is no data to support that certain levels of elongation must be achieved to perform as a fluid applied WRB or as a fluid applied flashing. Specifications should be based upon performance test results like those required from the referenced organizations. Refer to the R-Guard Cat 5™ Rain Screen Product Test Results for a complete list of performance test results.

### PREPARATION

Protect people, vehicles, property, plants and all other surfaces not intended for application. To ensure best results, apply to clean surfaces free of contaminants. 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.

Chemical residues, surface oxidation, surface coatings or films may adversely affect adhesion. Pressure-treated wood or fire-retardant wood and other contaminated surfaces should be cleaned with an Isopropyl Alcohol wipe and allowed to flash-off before application of R-Guard products.

Concrete must be in place 3–7 days and free of any curing compounds or form release agents before permeable R-Guard products are applied. Mortar joints in CMU construction must have a minimum 3 day cure before treated with R-Guard products.

**For Cast-in-Place Concrete Applications,** concrete designated for application must be clean, smooth and free of curing compounds and form release agents. Repair bug holes, honey combing and other imperfections using suitable cementitious mortar. Remove concrete splashes, over pours, grout or slurry rundown using appropriate mechanical means. Fill/prepare minor imperfections in concrete surface with R-Guard Joint & Seam Filler. After product application, inspect surface to ensure coating is applied at appropriate wet mil thickness, achieving continuous film and free of pinholes. Treat visible pinholes or breaks in film with additional primary air and water barrier coating or R-Guard FastFlash®. 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 where appropriate, prepare all raw gypsum board edges with R-Guard PorousPrep. Apply to raw gypsum board edges in a thin, uniform coat according to published application instructions. Do not over apply. Allow to dry tack-free before application of R-Guard products.

Prepare all rough openings with Joint & Seam Filler and/or FastFlash®. Allow to skin over before installing Cat 5™ Rain Screen. Overlap

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Cat 5™ Rain Screen onto FastFlash® by 2 inches or more. A slightly diagonal vertical application stroke provides best coverage.

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™ Rain Screen.

If errant nails/fasteners that do not engage with studs are removed, fill the holes with additional Joint & Seam Filler to ensure the continuity of the air and water-resistive barrier.

Roofing systems must be capped and sealed or top of walls protected from water intrusion both before and after air barrier system installation. Water intrusion may interfere with bonding of air barrier waterproofing materials and/or detrimentally impact the performance of such materials.

### Surface & Air Temperatures

Substrate and temperature conditions between 32°F (0°C) and 110°F (43°C) are required for proper curing and drying of material to take place.

**Hot Weather Conditions/Precautions:** When air or surface temperatures exceed 95°F (35°C), apply product to the shady side of structure 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. Do not apply when substrate temperature exceeds 110°F (43°C).

**Cold Weather Conditions/Precautions:** Product may be applied to frost-free substrates at temperatures below 32°F (0°C). Product will not begin to cure until temperatures reach 32°F (0°C) and remain above freezing. Keeping material stored in a heated environment prior to use and misting applied material with warm, fresh water will help in these conditions. Product and sprayer must be 60°F (15°C) or higher for proper spraying. Contact PROSOCO for cold weather spraying recommendations.

**Low Humidity Conditions/Precautions:** The process of curing may take longer when lower humidity levels occur. A light misting of fresh water over the treated surface will accelerate curing if necessary.

Though 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. *Contact PROSOCO if conditions are questionable.* As with any coating, application to substrates with high moisture content may lead to blistering of the material.

### Equipment

#### Recommended Spray Equipment

| EQUIPMENT                                                  | GRACO                                                                | TITAN                                               |
|------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sprayer:</b><br>>3500 psi<br>>3 gpm<br>Direct Immersion | 833 Direct Immersion<br>933 Direct Immersion<br>675 Direct Immersion | PowrTwin<br>12000di Direct Immersion<br>Hydra X4540 |
| <b>Hose:</b><br>up to 200 ft                               | 1/2" ID, ≥4000 psi                                                   | 1/2" ID, ≥4000 psi                                  |
| <b>Whip:</b><br>3 to 10 ft                                 | 3/8" whip and gun swivel                                             | 1/4"-3/8" whip and gun swivel                       |
| <b>Gun:</b><br>listed or equivalent                        | HD Blue 241706                                                       | RX-Apex<br>M4                                       |
| <b>Tip</b>                                                 | 523 reversible tip                                                   | HD 523 reversible tip<br>TR1 525 tip                |

#### Recommended Accessories

- Spray tip extension – improves delivery and extends reach
- Spray tip swivel for extension

**NOTE:** Other combinations of sprayers, guns, and tip sizes can be qualified by the contractor to achieve the desired application properties.

When selecting airless spray equipment, it is important to ensure the sprayer is direct immersion and can maintain at least 3500–4000 psi at the spray tip. Remove all filters prior to spraying.

#### Recommended Roller Equipment

Product may also be applied with a standard 3/8 to 3/4 inch nap roller.

### Proper Power Sprayer Equipment Maintenance

Always review the recommended daily maintenance instructions provided by the pump manufacturer.

**BEFORE USE:** Ensure the sprayer has been flushed with an approved solvent, such as mineral spirits. Do not rinse with water.

Take caution during use to prevent open pail of material from skinning during application. Plastic sheeting may be placed on the material to prevent air exposure.

**AFTER USE:** Ensure all tips, hoses, and the sprayer have been completely flushed with





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mineral spirits or other approved solvent immediately after use. Never run water through the pump when using Cat 5™ Rain Screen, as this is a moisture curing product and will react with any water in the pump and lines. DO NOT allow Cat 5™ Rain Screen to sit idle in the sprayer for more than 15 minutes. Thoroughly flush equipment with approved solvent after each use.

### Storage & Handling

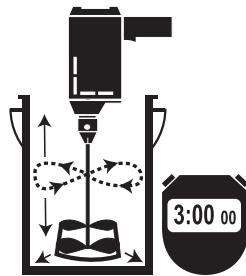
Store in a cool, dry place. Keep container tightly closed when not dispensing. Do not open container until preparation work has been completed. Do not alter or mix with other chemicals. When stored at or below 80°F (27°C) Cat 5™ Rain Screen has a shelf life of 12 months after the date of manufacture. This shelf life assumes upright storage of factory-sealed containers. Do not double stack pallets. Dispose of unused product and container in accordance with local, state and federal regulations.

### APPLICATION

Read “Preparation” and the Safety Data Sheet before use. Not for use with Insulated Concrete Forms. Contact PROSOCO for recommendations.

### Dilution & Mixing

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



### Typical 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 15 wet mils to DensGlass® gold fiberglass mat gypsum sheathing. Some gypsum sheathing products, OSB and CMU may require additional material to achieve the desired mil thickness for a pinhole free coating. In those cases, more than two coats may be required to achieve a pinhole free coating. 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/support/product-literature-library](http://www.prosoco.com/support/product-literature-library).

Cat 5™ Rain Screen is sold in 5 gallon containers.

- *Exterior Gypsum Board, OSB or Plywood:* 50–100 sq.ft. per gallon
- *CMU:* 50–80 sq.ft. per gallon

### Application Instructions

1. With the spray gun 12-18 inches from the surface, spray apply 15 wet mils using a crosshatch spray pattern. Ensure there are no pinholes, voids or gaps in the membrane. Alternatively, roller apply 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. CMU, OSB and exceptionally porous gypsum sheathing may require more than two coats.
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 to ensure a void- and pinhole-free surface. Repair any deep gouges, punctures or damaged areas with FastFlash® or Joint & Seam Filler. 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 FastFlash®, Joint & Seam Filler or Cat 5™ Rain Screen. Overlap repairs, penetration treatments, transitions, SS ThruWall, rigid flashing and other air barrier components to ensure positive drainage and continuity of the air and water-resistive barrier.

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### Cleanup

Clean tools and equipment with mineral spirits or similar solvent immediately after use. Do not allow Cat 5™ to sit idle in the sprayer for more than 15 minutes.

### Drying

At 70°F (21°C) and 50% relative humidity, product skins in approximately 2 hours and dries in approximately 12 hours when applied at 15 mil thickness. Low temperatures and low relative humidity slow dry time. Wind, high temperatures and high humidity accelerate drying.

### WARRANTY

The information and recommendations made are based on our own research and the research of others, and are believed to be accurate. However, no guarantee of their accuracy is made because we cannot cover every possible application of our products, nor anticipate every variation encountered in masonry surfaces, job conditions and methods used. The purchasers shall make their own tests to determine the suitability of such products for a particular purpose.

PROSOCO, Inc. warrants this product to be free from defects. **Where permitted by law, PROSOCO 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.** The purchaser shall be responsible to make his own tests to determine the suitability

of this product for his particular purpose. PROSOCO's liability shall be limited in all events to supplying sufficient product to re-treat the specific areas to which defective product has been applied. Acceptance and use of this product absolves PROSOCO 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 PROSOCO, its distributors or dealers.

### CUSTOMER CARE

Factory personnel are available for product, environment 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. Field visits by PROSOCO personnel are for the purpose of making technical recommendations only. **PROSOCO is not responsible for providing job-site supervision or quality control.** Proper application is the responsibility of the applicator. Call Customer Care at 800-255-4255, or visit our website at [prosoco.com](http://prosoco.com), for the name of the PROSOCO representative in your area.



# PRODUCT TEST RESULTS

## R-Guard Cat 5™ Rain Screen



### ICC-ES AC212<sup>1</sup>

#### 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<br>Wet Cup                                     | Report                                                                                    | 14 perms                                                                                |
| 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<br>ASTM E 72<br>ICC-ES AC212<br>ASTM E 331 | No cracking of the coating                                                                | Pass                                                                                    |
| Weathering                                                                     | ICC-ES AC212<br>AATCC <sup>2</sup> 127                   | No cracking of the coating; no water penetration                                          | Pass                                                                                    |
| Air Permeance                                                                  | ASTM E 2178                                              | ≤ 0.02 L / s·m <sup>2</sup> at 75 Pa<br>(≤ 0.004 cfm / ft <sup>2</sup> at 1.57 psf)       | Pass: 0.0007 L / s·m <sup>2</sup> at 75 Pa<br>(0.000 cfm / ft <sup>2</sup> 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 <sup>2</sup> at 75 Pa<br>(≤ 0.004 cfm / ft <sup>2</sup> at 1.57 psf) | Pass: 0.0007 L / s·m <sup>2</sup> at 75 Pa<br>(0.000 cfm / ft <sup>2</sup> at 1.57 psf)  |
| Air Leakage of Air Barrier Assemblies | ASTM E 2357                     | ≤ 0.2 L / s·m <sup>2</sup> at 75 Pa<br>(≤ 0.04 cfm / ft <sup>2</sup> at 1.57 psf)   | Pass: 0.0009 L / s·m <sup>2</sup> at 75 Pa<br>(0.0028 cfm / ft <sup>2</sup> at 1.57 psf) |
| Water Resistance                      | AATCC 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                                                                                     |
| Crack Bridging                        | ASTM C 1305                     | Pass                                                                                | Pass                                                                                     |
| Water Vapor Transmission              | ASTM E 96<br>Wet Cup<br>Dry Cup | Report                                                                              | Wet Cup: 14 perms<br>Dry Cup: 10 perms                                                   |

#### FIRE TESTING

| TEST                                                                          | METHOD                | CRITERIA                                                                                           | RESULTS                                                                    |
|-------------------------------------------------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies | NFPA <sup>3</sup> 285 | Must resist flame propagation and flame spread                                                     | See Report 10261K Rev. 6 from Priest & Associates Consulting, LLS          |
| Surface Burning Characteristics                                               | ASTM E 84             | Criteria for ICC and NFPA Class A Building Material:<br>Flame Spread ≤ 25<br>Smoke Developed ≤ 450 | Meets Class A Building Material<br>Flame Spread: 25<br>Smoke Developed: 10 |

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