1. Product Name

RedGard® Waterproofing and Crack Prevention Membrane

Custom 9240® Waterproofing and Anti-Fracture Membrane

2. Manufacturer

Custom Building Products
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Seal Beach, CA 90740-2757
(800) 272-8786
(562) 598-8808
Fax: (800) 200-7765
E-mail: contactus@cpbmail.net
www.custombuildingproducts.com

3. Product Description

1. BASIC USE

RedGard®

RedGard Waterproofing and Crack Prevention Membrane is a ready-to-use elastomeric membrane for both commercial and residential tile and stone application. Suits for interior and exterior substrates, RedGard creates a continuous moisture barrier with outstanding adhesion and reduces crack transmission in tile and stone floors. It bonds directly to metal drains, PVC, stainless steel and ABS drain assemblies and can be used as a slab-on-grade moisture barrier under resilient flooring.

Substrates suited for RedGard include:
- Concrete
- EasyBoard®, WonderBoard®, cement backerboards
- Exterior grade plywood - For crack isolation of interior dry areas only
- Exterior decks - Contact Technical Services for information related to exterior pressure treated wood decks
- Lightweight concrete
- Gypsum based cement toppings

Custom 9240®

Custom 9240 is a flexible, seamless water-proofing membrane with a liquid-applied polymer and reinforcing fabric that bonds to a variety of substrates and is ideal for heavy duty service installations. Designed for waterproofing tile and stone installations, Custom 9240 also provides protection from fractures to 1/8" (3 mm) over shrinkage and other non-structural cracks.

Substrates suited for Custom 9240 include:
- Concrete
- Ceramic tile
- Cement terrazzo
- WonderBoard®, cement backerboards
- Exterior grade plywood - For interior dry areas only
- Exterior decks
- Resilient flooring
- Cement plaster
- High pressure laminate

COMPOSITION & MATERIALS

RedGard is a liquid-applied elastomeric waterproofing material that cures to form a monolithic membrane. Custom 9240 is a liquid-applied polymer with a reinforcing fabric.

SIZE

RedGard is offered in 2 sizes:
- 1 gal (3.78 L) pail
- 3.5 gal (13.2 L) pail

Custom 9240 is available by component or kit:
- 6 gal (22.7 L) pail of liquid
- 6" x 75' (0.15 x 22.85 m) fabric roll
- 36" x 100' (0.91 x 30.5 m) fabric roll
- Kit - 6 gal (22.7 L) pail of liquid and either 6" x 75' (0.15 x 22.85 m) or 36" x 100’ (0.91 x 30.5 m) fabric roll

BENEFITS

RedGard
- Easy to use and can be applied by roller, trowel or sprayer
- Rated for extra heavy duty service
- Reduces curing time with QuickDry formula
- Isolates cracks to 1/8" (3 mm)
- Meets Uniform Plumbing Code specifications for use as a shower pan liner
- Obtained the Notice of Acceptance (NOA) for Miami Dade County
- Resists mold and mildew through MoldGard® Technology

Custom 9240
- Rated for extra heavy duty service
- Forms flexible, seamless waterproofing for varying substrates
- Provides anti-fracture protection to 1/8" (3 mm) for shrinkage and nonstructural cracks
- Meets Uniform Plumbing Code specifications for use as a shower pan liner
- Resists mold and mildew through MoldGard® Technology

LIMITATIONS
- Do not apply to surfaces that may drop below 40 degrees F (4 degrees C) within 72 hours of application
- Do not apply over wet surfaces or surfaces subject to hydrostatic pressure
- Do not use to bridge or cover over existing expansion, control, construction, cold or sawcut joints; use Crack Buster Pro™ membrane for control, cold or sawcut joints
- Do not use as an adhesive
- Do not use as a wear surface; the membrane must be covered with tile or other permanent flooring

4. Technical Data

American National Standards Institute (ANSI) - ANSI A108/A118 American National Standards for the Installation of Ceramic Tile

ASTM International (ASTM)
- ASTM C627 Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-type Floor Tester

Tile Council of North America (TCNA) - TCA Handbook for Ceramic Tile Installation, TCA Method EJ 171, F126

APPROVALS

RedGard and Custom 9240 have tested and comply with Uniform Plumbing Code and International Plumbing Code standards for use as a shower pan liner. They have also obtained Notice of Acceptance (NOA) for Miami Dade County, conform to the IRC and IAPMO Research and Testing, Inc., File No. 4244.

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**ENVIRONMENTAL CONSIDERATIONS**

Custom Building Products is committed to environmental responsibility in both products produced and in manufacturing practices.

Use of RedGard and Custom 9240 products may contribute to LEED® certification.

5. **Installation**

**PREPARATORY WORK**

**Surface Preparation**

Exterior and wet areas must have proper sloping to drains. All surfaces must be structurally sound, clean, dry and free from contaminants that would prevent a good bond. Newly prepared concrete must be cured for 28 days and then troweled smooth and textured to a fine broom finish. Existing surfaces must be scarified and leveled, and all defects must be repaired. Cracks exceeding 1/8" (3 mm) should be treated in accordance with TCNA F125 or TCNA F125A.

**METHODS**

RedGard as Crack Prevention Membrane

Place RedGard into cracks with the flat side of the trowel, roller or brush. Using a 3/16" x 1/4” (5 x 6 mm) V-notch trowel or 3/8” (9.5 mm) rough textured roller, apply additional material to the substrate. Use the flat side of the trowel and flatten the ridges to form a continuous, even coat of material. The membrane should extend a minimum of the diagonal measurement of the tile beyond both sides of the crack. Gaps between plywood sheets and where floors meet walls must also be prefilled. For continuous crack isolation, cover the entire substrate with RedGard applied to a minimum 30 mils wet film thickness.

RedGard as General Waterproof Membrane (ANSI 118.10)

Cracks to 1/8" (3 mm) should be prefilled before beginning the waterproofing application. Dampen all porous surfaces. Use a 3/4" (19 mm) rough textured synthetic roller or a 3/16" x 1/4” (5 x 6 mm) V-notch trowel and heavily precoat the corners and the intersections where the floors and walls meet, extending 6" (15 cm) on either side. RedGard applied in the above manner meets requirements of ANSI A118.10 without fabric reinforcement. For extra protection, embed a 6" (15 cm) wide fiberglass mesh into the membrane for changes of plane and for gaps 1/8" (3 mm) or greater. If using a trowel, spread the material with the trowel held at a 45 degree angle, and then flatten the ridges.

RedGard as Primary Pan Liner (Uniform Plumbing Code, IAPMO File No. 4244)

Apply material by roller, trowel or spray at 90 - 93 mils wet with a dried film thickness of 47 mils. An airless sprayer can be used for the waterproofing application. The sprayer must produce between 900 - 2300 psi, with a flow rate of 1.0 - 1.5 gpm and must have a tip orifice size of 0.025 - 0.029. Apply a continuous film with overlapping spray. The membrane appearance is pink when wet and dries to a dark red color. It typically takes 1 - 1.5 hours to turn completely red.

After the first coat turns red, inspect the film for integrity and fill any voids or pinholes with additional material. Apply a second coat at right angles to the first coat. Periodically check the film thickness with a minimum 30 mils wet film thickness.

RedGard as Pan Liner (IAPMO File No. 4244, FHA 4900-1-615-5, Sections C - D)

Apply material by roller, trowel or spray at 90 - 93 mils wet with a dried film thickness of 47 mls. Do not exceed 125 mils wet film thickness. RedGard for Interior Change of Plane & Commercial Installations

Many commercial waterproofing installations require reinforcing of interior change of plane. Contact Technical Support for recommendations before beginning commercial installation including, but not limited to, the following:

- Above-grade pools, fountains and other poured-in-place or free-standing structures that will permanently hold water
- Commercial roofs subject to continuous water exposure (i.e., commercial kitchens, washdowns, periodic flooding, etc.)
- Above-grade slabs that are prestressed or posttensioned
- Perimeters where the floor abuts a curtain or shear wall
- Around the perimeter of all through floor penetrations (i.e., drain pipes, electrical conduit, etc.)

RedGard at Drains

Drains should have a clamping ring with open weep holes for thin-set application. Apply the membrane to the bottom flange. The drain should be fully supported, without movement, and should be even with the plane of the substrate. Apply the RedGard membrane as described previously. Embed a 12" x 12" (30 x 30 cm) fiberglass mesh into the membrane.

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**TABLE 1 TECHNICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>RedGard</th>
<th>Custom 9240</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pot life</td>
<td>Indefinite</td>
<td>Indefinite</td>
</tr>
<tr>
<td>ASTM C191, initial set 1@ 70 degrees F</td>
<td>1 - 1.5 hours</td>
<td>1 - 1.5 hours</td>
</tr>
<tr>
<td>Drying time before tile installation</td>
<td>1 - 1.5 hours</td>
<td>1 - 1.5 hours</td>
</tr>
<tr>
<td>ANSI 118.10, Fungus and microorganism resistance</td>
<td>Pass - No growth</td>
<td>Pass - No growth</td>
</tr>
<tr>
<td>Breaking strength</td>
<td>484 psi (34 kg/cm²)</td>
<td>2500 psi (79.3 kg/cm²)</td>
</tr>
<tr>
<td>Dimensional stability</td>
<td>0.05%</td>
<td>No change</td>
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<tr>
<td>Waterproofness</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>Shear strength - 12 day dry cure</td>
<td>267 psi (18.8 kg/cm²)</td>
<td>305 psi (21.4 kg/cm²)</td>
</tr>
<tr>
<td>Shear strength - 100 day water immersion</td>
<td>89 psi (6.3 kg/cm²)</td>
<td>89 psi (6.3 kg/cm²)</td>
</tr>
<tr>
<td>ASTM C627, Robinson floor test</td>
<td>14 cycles; extra heavy</td>
<td>14 cycles; extra heavy</td>
</tr>
<tr>
<td>Pot life</td>
<td>1 - 1.5 hours</td>
<td>1 - 1.5 hours</td>
</tr>
<tr>
<td>Water vapor transmission</td>
<td>0.02 grains/hr ft²</td>
<td>0.02 grains/hr ft²</td>
</tr>
<tr>
<td>Drying time is dependent upon ambient conditions; longer times may occur in cooler and damp conditions.</td>
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</tbody>
</table>

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making sure it does not obstruct the drainage weep holes. Then apply an additional coat of the membrane and smooth. After curing, clamp the upper flange onto the membrane and tighten. Use a silicone caulk around the flange where the membrane and the upper flange make contact. A toilet flange can be handled in much the same manner.

RedGard With Lightweight Concrete or Gypsum Based Underlayments

Lightweight or gypsum based materials must obtain a minimum of 2000 psi (13.8 MPa) compressive strength at the recommended cure time. The underlayment must be sufficiently dry and properly cured to the manufacturer’s specifications for permanent, non-moisture permeable coverings. Surfaces to be tiled must be clean, structurally sound and subject to deflection not to exceed the current ANSI standards. Expansion joints must be installed in accordance with local building codes and ANSI/TOTA guidelines.

Prime all surfaces to receive RedGard with properly applied manufacturer’s sealer or with a primer coat of Redgard, consisting of 1 part RedGard diluted with 4 parts clean, cool water. In a clean bowl, mix at low speed to obtain a lump-free solution. The primer can be brushed, rolled or sprayed to achieve an even coat. Apply the primer coat to the floor at a rate of 300 ft²/gal (75 m²/L) of reduced material. When dry, RedGard can be applied to the primed lightweight or gypsum based surface.

Redgard and Custom 9240 at Expansion Joints

Do not bridge, either RedGard or Custom 9240, joints designed to experience movement. Carry these types of joints through the tile work. Clean the joint and install an open or closed cell backer rod to the proper depth, as outlined in the Tile Council Handbook, EJ171. Next compress sealant into the joint, coating the sides and leaving the sealant flush with the surface. When the sealant is dry, place bond breaker tape over the joint. Apply a minimum 3/64” (12 mm) of RedGard or Custom 9240 liquid over the joint and the substrate, following the instructions provided previously. Install the tile work onto the membrane, but do not bridge the joint. After the tile work is properly set, follow the architect’s and manufacturer’s instructions to fill the joint with a specified color sealer.

Custom 9240 for 2-Part System for Heavy Duty and Commercial Applications

Apply a liberal coat of liquid, approximately 8” (20 cm) wide, over cracks and joints. Embed the 6” (15 cm) wide reinforcing fabric into the first coat of liquid. Apply a second liberal coat of liquid to seal the fabric.

To pretreat coves and corners, apply a liberal coat of liquid. Fold 6” (15 cm) wide fabric in half and embed it into the liquid, flashing the fabric 3” (7.5 cm) up walls. Apply a second liberal coat of liquid to seal the fabric. Wet coat thickness should be 20 - 30 mils thick. Do not install over structural cracks, cracks with vertical movement or cracks with more than 1/8” (3 mm) horizontal movement.

To pretreat penetrations, pack any gaps around pipes, lights or other penetrations with a compressible backer rod and suitable waterproof sealant. Apply a liberal coat of liquid around the penetration opening and embed pieces of 6” (15 cm) wide fabric into the liquid. Cover with a second layer of liquid. After curing, seal the flashing with a waterproof sealant.

For expansion joints and cracks in excess of 1/8” (3 mm), treat as expansion joints and follow the instructions provided previously for expansion joints.

To pretreat drains for a 2-part system, have a clamping ring with open weep holes for thin-set application. The drain should be fully supported, without movement, and should be even with the substrate plane. Cut a square of reinforcing fabric approximately 38” x 38” (96 x 96 cm). In the center of the fabric, cut a hole that matches the diameter of the drain throat. Apply a liberal coat of liquid to the bottom flange. Center the circular cutout over the drain throat and embed the fabric into the liquid, making sure it does not obstruct the drainage hole. Apply an additional coat of liquid 20 - 30 mils thick. After curing, apply a waterproof sealant bead where the fabric cutout meets the drain throat. Clamp the upper flange onto the membrane and tight. Caulk with silicone caulk around the flange where the membrane and upper flange make contact. A toilet flange can be handled in much the same manner.

Before beginning the 2-part Custom 9240 application, allow all pretreated areas to dry to the touch. Using a brush or roller, apply a liberal coat (20 - 30 mils thick) of liquid over the substrate, including pretreated areas. Lay reinforcing fabric into the wet liquid and smooth out any wrinkles. Press the fabric with a brush or roller until liquid bleeds through to the surface. Lap seams approximately 2” (5 cm). Flash the membrane over pretreated coves and corners so that the areas will have two layers of fabric. Apply another liberal coat of liquid over the fabric to saturate it. Let the top coat dry to the touch, approximately 1 - 3 hours. Apply another liberal coat (20 - 30 mils thick) of liquid over the entire surface to the seal membrane. When the last coat has dried to the touch, inspect final surface for pinholes, voids, thin spots or other defects and use additional liquid to seal defects.

Reinforcing fabric and the third coat of liquid can be omitted over interior, vertical cement backerboard or drywall surfaces; pretreatment is, however, still required.

Custom 9240 for 1-Part System for Residential and Light Commercial Applications

For above instructions, reinforcing fabric and third coat of liquid can be omitted; however, pretreatment is required for coves, corners, seams, expansion joints and drains.

Custom 9240 for Interior CBU and Gypsum Wallboard

Custom 9240 reinforcing fabric and the third coat of liquid may be omitted from main applications over interior walls and other vertical surfaces made with cementitious backer units (CBU) or gypsum wallboard; coves, corners, seams and board joints, however, must be pretreated as described previously.

Protection

If tile or stone will not be set immediately after curing, protect the RedGard or Custom 9240 application from rain, direct sunlight and inclement weather for 72 hours after application. If delays longer than 72 hours are expected, cover the area with felt paper. Care should be taken to prevent the application from becoming soiled or punctured during and after application.

Tile and Stone Installation

Install tile or stone with a Custom Building Products polymer-modified mortar that meets ANSI A118.4 or A118.11 standards.

Curing

RedGard is dry when it turns solid red, with no visible pink color. Typically, drying time is 1 - 15 hours; depending on ambient conditions, drying time can be as much as 12 hours. After the second coat is applied and both coats are fully cured, the application area can be flood tested.

Custom 9240 is dry when it turns a solid dark orange, normally 1.5 - 2 hours; ambient conditions can, however, increase drying time to 12 hours.
Cleaning
Clean tools and hands with water before the material dries. Clean all spray equipment immediately after use.

Coverage
RedGard as Crack Prevention Membrane
- 1 gal (3.78 L) pail - 110 ft² (10.2 m²) at 30 mil thickness when wet
- 3.5 gal (13.2 L) pail - 385 ft² (35.8 m²) at 30 mil thickness when wet

RedGard as Waterproof Membrane (ANSI A118.10)
- 1 gal (3.78 L) pail - 35 ft² to 40 ft² (3.3 - 3.7 m²) at 50 - 55 mil thickness when wet; 25 - 30 mil thickness when dry
- 3.5 gal (13.2 L) pail - 123 ft² to 140 ft² (11.4 - 13 m²) at 30 mil thickness when wet; 47 mil thickness when dry

RedGard as IAPMO Pan Liner
- 1 gal (3.78 L) pail - 20 ft² to 22 ft² (1.9 - 2 m²) at 93 mils when wet; 47 mils when dry
- 3.5 gal (13.2 L) pail - 70 ft² to 77 ft² (6.5 - 7.2 m²) at 93 mils when wet and 47 mils when dry

Custom 9240 as Crack Isolation Coverage
- 30 mils wet - 54 ft²/gal

Custom 9240 as Waterproofing Membrane (ANSI A118.10)
- 60 mils wet - 27 ft²/gal

Custom 9240 as IAPMO Pan Liner
- 93 mils wet - 17 ft²/gal

PRECAUTIONS
Wear rubber gloves and eye protection while using this product. Avoid eye contact or prolonged contact with skin and wash thoroughly after handling. If eye contact occurs, flush with water for 15 minutes and consult a physician. Wash thoroughly after handling. Do not take internally. Keep out of the reach of children.

BUILDING CODES
Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.

6. Availability & Cost
RedGard is available through distributors throughout the United States. Visit the www.custombuildingproducts.com website for additional availability and cost information.

7. Warranty
Custom Building Products warrants to the original consumer purchaser that its product shall be free from defects in material and workmanship under normal and proper usage for a period of one year following the date of original purchase. Sole liability under this warranty shall be limited to the replacement of the product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply. This warranty will not extend to any product modified in any way or not used in accordance with the manufacturer's printed instructions. Custom Building Products makes no other warranties, either express or implied. This warranty gives you specific legal rights, and you may have other rights that vary from state to state.

For details and complete warranty information, visit the Custom Building Products website: www.custombuildingproducts.com.

8. Maintenance
Properly installed product requires no special maintenance.

9. Technical Services
For technical assistance, contact Custom Building Products or visit the website: www.custombuildingproducts.com.

10. Filing Systems
- Additional product information is available from the manufacturer upon request.