

PRODUCT IDENTIFICATION

GEOGARD®

GEOGARD Base Coat

#49102 - 2 gallon pails

#49105 - 5 gallon pails

GEOGARD Finish Coat

#4990902C - 2 gallon pails

#4990905P - 5 gallon pails

FIRE RESISTANT BASE COAT/FINISH COAT POLYURETHANE RESTORATION COATING SYSTEM

Description

The GEOGARD System is a fire resistant two-coat, polyurethane, elastomeric coating system. The system consists of a single component, moisture-cure, high-performance, aromatic urethane base coat and a single component, moisture-cure, high-performance, aliphatic urethane finish coat. Aggregate may be added to the finish coat in traffic areas to achieve a slip-resistant surface.

Uses

The GEOGARD System is used as a fire resistant restoration coating to protect and extend the life of a variety of weathered single ply roof membrane systems, smooth BUR, modified bitumen, polyurethane foam and structural concrete roofs. It is always applied in a two-coat process, as a base coat and finish coat. The GEOGARD Base Coat is highly elastomeric and bonds directly to the prepared surface. The GEOGARD Finish Coat is white and protects the roofing assembly from exposure to fire,

airborne pollutants, residual factory emissions, and damaging UV radiation.

Advantages

The GEOGARD System is UL and FM rated, providing Class A fire resistance to most single ply membranes. Also the GEOGARD Base/Finish Coats are single component products, meaning there is no blending of multi-component kits. It is also a very versatile coating system, suitable for use over a variety of single-ply roofing membranes. The GEOGARD System extends the life of single-ply roofs and other roof substrates. The finish coat is reflective, resulting in lower surface temperatures, increased roof life and lower energy costs.

Limitations

Do not apply when air or surface temperature is below 50°F or above 110°F or when rain is imminent. The GEOGARD System is not intended for use in continual ponding water areas, over lightweight concrete, over non-reinforced PVC single ply systems, new single ply roof membranes or over gravel surfaced BUR. Allow new single ply roofs to age 6 months prior to application of the GEOGARD System. Do not use on roof membranes where plies have become embrittled or where the substrate or insulation has become saturated with water. Do not use the GEOGARD System over tar, silicone based coatings, or acrylic latex coatings. **Note: All EPDM membranes must be looked at individually as some EPDM formulations have a potential for membrane swelling due to the solvent content in GEOGARD.** A test application must be conducted by applying GEOGARD Base Coat at 1 1/2 gal./100 sq. ft. or 24 wet mils. Check for swelling for a 12-24 hour period. If membrane swells, a very light application of GEOGARD Base Coat is recommended at 8-16 wet mils. After 24 hour cure, follow with the remainder of actual coverage rate. Recoating of GEOGARD Base Coat and Finish Coat must be performed within 72 hours of initial application. Beyond that time, contact the Republic Technical Department for further information.

Coverage

The GEOGARD System is to be applied in two coats consisting of a Gray Base Coat and White Finish Coat. The GEOGARD Base Coat will be applied as follows:

Weathered Single Ply	11/2 gal./100 sq. ft. (24 wet mils)
Foam	3 gal./100 sq. ft. (48 wet mils)
Concrete	3 gal./100 sq. ft. (48 wet mils)
Smooth Surface Built-Up & Modified Bitumen Roofing	3 gal./100 sq. ft. (48 wet mils)

TECHNICAL DATA – BASE COAT

Weight per Gallon (ASTM D 1475)	11.0 ± 0.2 lbs.
Specific Gravity	1.32 ± 0.02
Solid by Weight	74% ± 1%
Solids by Volume	65% ± 1%
Elongation (ASTM D 412)	450%
Flexibility @ 77°F (ASTM D 1737)	Passes 1/8" mandrel bend
Tensile Strength (ASTM D 412)	320 psi
Shore "A" Hardness (ASTM D 2240)	37
Dry Time (ASTM D 1640)	24 hours to tack free 48 hours to full cure
Flashpoint (Seta Flash)	100°F
Clean Up	Republic Thinner #1 or Xylene

TECHNICAL DATA – FINISH COAT

Weight per Gallon (ASTM D 1475)	8.8 ± 0.2 lbs.
Specific Gravity	1.06 ± 0.02
Solid by Weight	69% ± 1%
Solids by Volume	51% ± 1%
Elongation (ASTM D 412)	250%
Flexibility @ 77°F (ASTM D 1737)	Passes 1/8" mandrel bend
Tensile Strength (ASTM D 412)	3,480 psi
Shore "A" Hardness (ASTM D 2240)	80
Dry Time (ASTM D 1640)	16 hours to tack free 24 hours to full cure
Flashpoint (Seta Flash)	80°F
Clean Up	Republic Thinner #1 or Xylene



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GEOGARD[®] COATING SYSTEM

The GEOGARD Finish Coat will be applied at a coverage rate of 1 gal./100 sq. ft. (16 wet mils) on all surfaces.

Note: Because of the irregular surface that can be encountered, these amounts are minimum requirements and the base coat may be increased due to surface conditions.

Preparation

Surfaces must be clean and dry. Remove all loose, dirt, and foreign matter with a stiff broom or proper mechanical equipment. Ruptures, splits, cuts, and torn flashings shall be repaired as needed. Blisters must be cut open and allowed to dry. Use a three-course technique for repairs to the surface. Refer to the specifications for detailed instructions.

- 1) Apply sufficient GEOGARD Base Coat over the area to be repaired so that the PERMAFAB fabric can be thoroughly embedded into the wet coating.
- 2) Embed PERMAFAB fabric reinforcement.
- 3) Apply additional GEOGARD Base Coat to completely cover the PERMAFAB Fabric. Upon complete cure (24–72 hours), apply GEOGARD Finish Coat at 16 wet mils.

Republic always recommends a test sample applied in an area representative of conditions. A test application is the best method of determining compatibility with and adhesion to the membrane or previously coated surface. Material should be stored in an area sheltered from harsh weather conditions at temperatures ranging from 60°F to 80°F and low humidity.

Application

GEOGARD Base Coat and Finish Coat may be applied by brush, roller, squeegee, or heavy-duty airless spray. MIX WELL BEFORE USE, USING A POWER ASSISTED MIXER. DO NOT THIN. A grid layout of the surface is recommended so that proper application quantities can be calculated as the job progresses. Wet mil thickness must be tested with a wet mil gauge as the job progresses to assure that the dry mil thickness is achieved in all coated areas. Republic provides on request information regarding wet and dry mil thickness, temperature, dew point, and a wet mil thickness gauge. When applying GEOGARD over a previously coated substrate, a test patch should be applied to determine compatibility. GEOGARD Base Coat MUST BE TOPCOATED with GEOGARD Finish Coat between 24–72 hours following the application of the Base Coat. If left uncoated for more than 72 hours, the surface must be primed with GEOGARD PRIMER prior to applying the Finish Coat. Environmental conditions associated with extremes in temperature and humidity may affect cure rates and recoat limitations. Refer to application specifications for additional information.

Spray Equipment Recommendation

Pumps: Graco King 45:1 or gas powered equivalents. Graco GH733, HydraMax 350 or other manufacturers' equivalents.

Hose/Pressure: 50'–300' length (depending on spray rig pressure). When using hoses longer than 100' use the next larger hose ID every 50'. Every 50' of hose will reduce the spray pressure of the rig by 10% at the gun tip.

i.e. 300' hose – 3/4" (50/100') to 5/8" (50/100') to 1/2" (50/100') to 3/8" (50')

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The information provided on this data sheet is effective as of July 2008 and supersedes all previous data concerning this product and its application.

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Good results are generally obtained @ 2500–3500 psi at spray tip.

Gun: Graco Contractor Gun, Graco Contractor FTx gun, Graco Silver Plus or equivalent. (Tip extrusions or pole guns can be used.)

Tip Sizes:

Fan Width (in)	.039	.043	.047	.051	.055	.059
10"–12"	539	543	547	551	555	559
12"–14"	639	643	647	651	655	659
14"–16"	739	743	747	751	755	
16"–18"	839	843	847	851	855	
Flow Rate	1.60 gpm	1.98 gpm	2.37 gpm	2.79 gpm	3.25 gpm	3.74 gpm

•Graco Heavy - Duty RAC Switch tips

(GHDXXX) Grey

- Additional tip sizes are available between .039–.059
- Base Coat should be applied with a tip size of .043-.060
- Finish Coat should be applied with a tip size of .039–.049

Maintenance

It is recommended that the coating installation be checked on a regular schedule with additional inspections after the system has been exposed to severe conditions. Small area touch up can be made at any time by following recommended application procedures.

Technical Services

Technical advice or service on suitability of material for specific application and end-use requirements is available from the manufacturer. Refer to label and Material Safety Data Sheet (MSDS) for precautionary information.



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