

Anti-Slip Hi-Traction® General Properties




SAFEGUARD® HI-TRACTION® & HIGLO-TRACTION® COVERS

Developed to hold up in the harshest conditions

The Safeguard Surface:

The Safeguard Anti-Slip surface is an engineered combination of epoxy, resin and fused alumina aggregate bonded to a variety of base materials in a controlled environment. These non-load bearing Covers are pre-fabricated to customer specification for retrofit installation over existing steps, walkways, and ladder rungs. When retrofit Covers are not the product of choice, customers can supply their own parts to Safeguard for direct gritting.

Products

- **Step Covers** SAFEGUARD® Hi-Traction® and HiGlo-Traction® Step Covers retrofit easily and directly over existing steps, providing slip resistance on both the stair tread and the leading edge where most slips occur. The unique “” design ensures protection precisely where it is needed.
- **Walkway Covers** Flat SAFEGUARD® Hi-Traction® and HiGlo-Traction® Walkway Covers provide antislip performance over flat flooring, walkways, sloped surfaces, ramps, and platforms.
- **Ladder Rung Covers** Both half-round and channel shaped SAFEGUARD® Covers are available for easy installation over all ladder rungs.
- **Pipe & Cable Covers** The trip hazard caused by pipes and cables can be greatly reduced with SAFEGUARD® Pipe & Cable Covers that protect the utilities underneath while removing the trip hazard that they present.

Base Material of Construction

A variety of base materials of construction are available to address your application requirements. Standard materials include: Pultruded FRP Composite, #316 Stainless Steel, G90 Hot Dipped Galvanized Steel, Flexible PVC Vinyl Sheeting, and Flexible Polymeric Geomembrane. When Covers are not an option, customer supplied parts can be shipped to Safeguard for Direct Gritting.

Sizes

SAFEGUARD® Covers are cut to customer specified sizes. Depending on the base material of construction and product shape, limitations on larger sizes do exist.

Grit - Coefficient of Friction (COF)

Safeguard incorporates fused alumina into all of its Anti-Slip products. This aggregate is characterized by hard, sharp edges creating a superior coefficient of friction that nearly doubles OSHA, ADA and APTA standards when flat or at an incline; even when wet, oily or dusty.

SAFEGUARD® Products have been tested utilizing the Mark II Model of the Brungraber as well as the English XL VIT coefficient of friction test apparatus. These are considered the most reliable and the standard for measuring COF.

Six (6) grit sizes are available to address any application; from shower areas to offshore drilling platforms in the North Sea. Super Coarse (for extreme conditions), Extra Coarse (for offshore and heavy duty use), Coarse (for industrial environments), Fine (for commercial buildings), Extra Fine (for residential steps) and Super Fine (for showers and barefoot areas).



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SAFEGUARD® Hi-Traction® & HiGlo-Traction® Covers
Manufactured with pride in the U.S.A.

Colors

A variety of safety colors, standard colors, premium colors and HiGlo-Traction® colors are available to meet all of your preferences and requirements. Custom color matching is also available on a per project basis.

HiGlo-Traction®

These products incorporate a photoluminescent pigment directly into the epoxy-resin system to provide "Glow in the Dark". Unlike paints, the pigment will not wear off and will last for the life of the Cover. A light source is required to charge the product, however once the lights go out, the Covers emit a photoluminescent glow for several hours, providing an excellent Anti-Slip pathway to safety. The pigment is non-toxic, non-radioactive and can be re-charged repeatedly.

Two-Tone Configuration

Safeguard colors can be combined to provide a two-tone configuration. On Walkway Covers, contrasting color on the edges can indicate a change in profile and surface texture; contrasting color on the nosing and vertical lip of a Step Cover calls attention to the leading edge of the step and prevents optical discrepancies when descending a long stairwell. Incorporating photoluminescent into the two-tone configuration, provides an economical and safe egress solution when the lights go out.

Descriptive Messaging and Logos

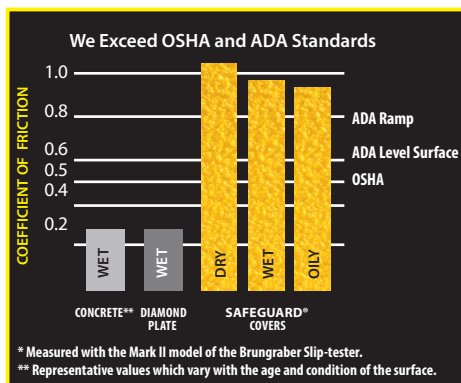
Reinforce safety messaging and corporate logos by incorporating them into your SAFEGUARD® Products. Messages, PPE Symbols and Corporate Logos are directly embedded and sealed into the grit surface to ensure the message lasts for the life of the Cover. Combine the message with photoluminescent "Glow in the Dark" to provide critical direction when the lights go out.

Installation

SAFEGUARD® Covers are non-load bearing, and are pre-fabricated for quick and easy installation over existing substrates including concrete, metal, fiberglass, wood, steel & composite grating, and tile. Depending on the base material of construction and surface to be covered, mechanical fasteners, urethane adhesive, PSA (pressure sensitive adhesive) and tack-welding can be used. Pre-drilled holes are available to aid in the process.

Test Results

Results are dependent upon materials of construction. Please call for additional technical information.



*Safeguard incorporates Fused Alumina as the aggregate in its Anti-Slip surface. This abrasive is characterized by a sharp edged particle shape and measures (9.0) on the Moh's Hardness Scale for abrasives. This ranks just below Diamond (10). Comparatively, most tapes and paints incorporate quartz or silica, which are synonyms for sand, as the aggregate. These rank only in the 6-7 range on the scale.

Average Size Of Grit (Aggregate)

Grades	Mesh	Inches	Microns	MM
Super Coarse (Xtreme) Most severe conditions	3/6	0.2	5000	5.08
Extra Coarse (Offshore) Oil platforms, heavily soiled & oily areas	10	0.085	2125	2.159
Coarse (Industrial) Most industry applications	20	0.033	850	.838
Fine (Commercial) Bus steps, commercial buildings	24	0.027	700	.686
Extra Fine (Residential) Deck steps, porches, bus steps	36	0.019	485	.483
Super Fine (Barefoot) Baths, pools and showers	54	0.012	305	.305

Average Thickness of Finished Product

Grit Coarseness	Super Coarse	Extra Coarse	Coarse	Fine	Extra Fine	Super Fine
Stainless or Galvanized Steel 18 Gauge/0.048"/1.2 mm	0.30" 7.6 mm	0.18" 4.6 mm	0.11" 2.8 mm	0.10" 2.5 mm	0.09" 2.2 mm	0.08" 2.0 mm
Pultruded FRP Composite 0.125" + 0.010 / - 0.005 3.2 mm + 0.3 mm / - 0.1	0.38" 9.7 mm	0.26" 6.6 mm	0.19" 4.8 mm	0.18" 4.6 mm	0.17" 4.3 mm	0.16" 4.1 mm
1mm Molded Fiberglass	NA	0.12" 3.15 mm	0.07" 1.8 mm	0.07" 1.7 mm	0.06" 1.5 mm	0.05" 1.3 mm
Vinyl (Flexible PVC) 0.024"/.60 mm	NA	0.15" 3.8 mm	0.08" 2.1 mm	0.07" 1.9 mm	0.06" 1.6 mm	0.05" 1.3 mm
Geomembrane Roll-Traction®	NA	NA	.101" 2.6 mm	.095" 2.4 mm	.087" 2.2 mm	.080" 2.0 mm

Materials of Construction

316 Stainless Steel	18 Gauge/0.048"/1.2 mm
G90 Hot Dipped Galvanized Steel	18 Gauge/0.048"/1.2 mm
Pultruded FRP Composite	0.125"/3.2 mm
1mm Molded Fiberglass	0.040" / 1 mm
Vinyl (Flexible PVC)	0.024"/.60 mm
Geomembrane Roll-Traction®	0.057" / 1.45 mm

Moh's Hardness Scale

Diamond	10.0
Fused Alumina Used in Safeguard Products	9.4
Quartz/Silica Sand Most Anti-Slip Products Including Tapes	6-7

Contact Safeguard Technology for more information or a free sample today.

SAFEGUARD
TECHNOLOGY
Leading Manufacturer of Anti-Slip Safety Products

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