



SAFEGUARD

TECHNOLOGY

Leading Manufacturer of Anti-Slip Safety Products



**Anti-Slip Products for Airport Ground Service,
Facility and Maintenance Applications**



www.safeguard-technology.com

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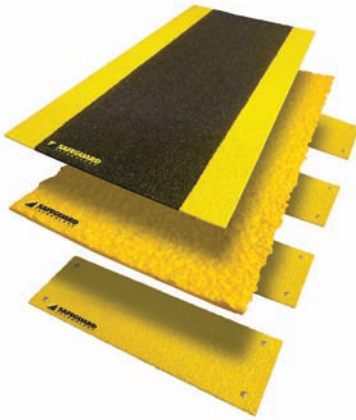
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Since 1992 Safeguard Technology has been manufacturing the highest quality Anti-Slip Covers for installation over existing Steps, Walkways and Ladder Rungs. These durable covers are corrosion and impact resistant, providing years of Anti-Slip protection in a variety of environments; from offshore drilling platforms to residential decks and stairs.

Keith Consolidated Industries "KCI" offers Safeguard on all of their premium ground service equipment.

Walkway Covers



Step Covers



Ladder Rung Covers



THE ANTI-SLIP SURFACE

The Anti-Slip Surface:

This is not a “spray on” or “paint on” application administered in the field. Safeguard bonds its engineered surface, featuring Fused Alumina¹, to a variety of base materials in a multi-step, engineered process under temperature controlled conditions for retrofit installation. Safeguard holds two patents on the process used to bond its Anti-Slip surface to steel.

MOHS' HARDNESS OF ABRASIVES

Material	Mohs' Hardness
Diamond	10
Silicon carbide	9 - 10
Alumina (Synthetic Aluminum Oxide)	9
Alundum (Fused brown Al_2O_3)	9.0
Silica sand (Most Tapes and Paints)	6 - 7

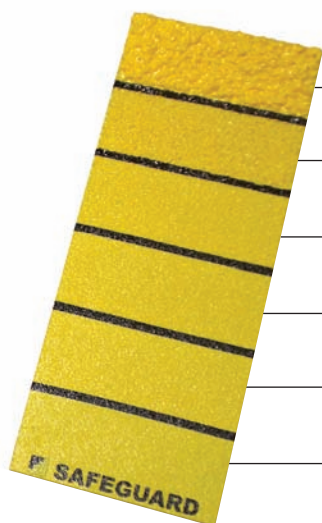
¹Safeguard incorporates Fused Alumina as the aggregate in its Anti-Slip surface. This abrasive is characterized by a sharp edged particle shape and measures (9.0) on the Mohs' Hardness Scale for abrasives. This ranks just below Diamond (10). Comparatively, most tapes and paints incorporate quartz or silica, which are synonyms for sand, as the aggregate. These rank in the 6-7 range on the scale.



SIX GRADES OF COARSENESS

Six Grades of Coarseness

Safeguard offers six (6) grades, or sizes of Fused Alumina aggregate to address a variety of environments.



Super Coarse (Xtreme for the most severe conditions)

Extra Coarse (Offshore/Heavy Duty for oil platforms, heavily soiled and oily areas)

Coarse (Industrial for most industry applications)

Fine (Commercial/Pedestrian for bus steps, commercial buildings)

Extra Fine (Residential for deck steps, porches, bus steps)

Super Fine (Barefoot for baths, pools and showers)

AVERAGE SIZE OF GRIT (AGGREGATE)

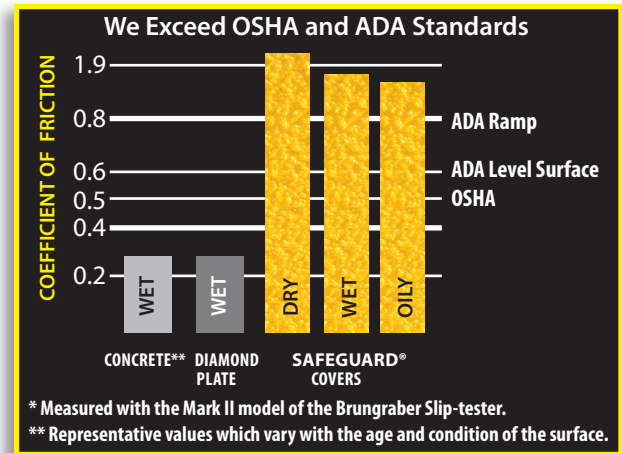
Grades	Mesh	Inches	Microns
Super Coarse (Xtreme)	4/8	0.2	5000
Extra Coarse (Offshore/Heavy Duty)	10	0.085	2125
Coarse (Industrial)	20	0.033	850
Fine (Commercial)	24	0.027	700
Extra Fine (Residential)	36	0.019	485
Super Fine (Barefoot)	54	0.012	305



COEFFICIENT OF FRICTION

Coefficient of Friction

Anti-Slip products are required to provide coefficient of friction measurements. While there are a variety of test apparatus and procedures, the English Test or Brungraber Test are recognized as the most reliable. Sub-standard "Slip Testers" would simply measure the surface under dry, horizontal conditions. The English and Brungraber models incorporate water and oil to replicate real life conditions. In addition, the surface is tested on an incline to emulate an ADA Ramp. Safeguard's Anti-Slip surface has been measured using the Mark II Model of the Brungraber. Results show the surface far exceeds OSHA and ADA Coefficient of Friction standards even when wet, oily and on an inclined surface.

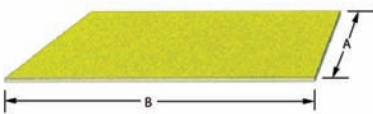


Since 1992, Safeguard has been committed to providing you with the highest quality Anti-Slip products.



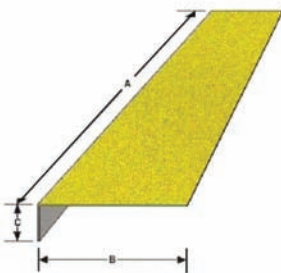
Products

By varying the shape, size and construction of the base material, Safeguard is able to provide the ideal solution for your application.



Walkway Covers

A retrofit cover designed for installation over flat areas.



Step Covers

An "L" shaped retrofit cover with a vertical lip, designed to wrap over the leading edge of a step, where a majority of "slips-and-falls" occur.



Ladder Rung Covers

"Half-Round" or "Channel" Shaped Covers designed to fit over existing ladder rungs.



Base Material of Construction

Although the surface is universal regardless of what it is bonded to, Safeguard offers a range of base material construction options to meet customer specifications and requirements. These products are non-load bearing for installation over existing substrates. A variety of standard options are available (listed below) or customers can supply their own parts, or specify a base material that Safeguard will have fabricated locally:

- **1/8" Pultruded FRP**
- **1mm Molded FRP**
- **18g Stainless**
- **18g Galvanized**
- **Flexible PVC Vinyl**

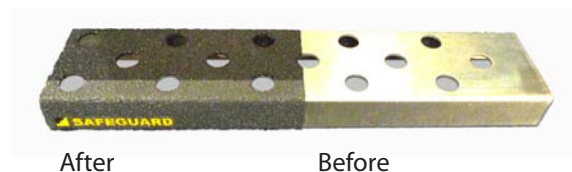
Direct Gritting:



Direct gritting is a lower cost option, particularly at the OEM level, when retrofit covers are not desirable. If you already have finished parts but do not want to adhere or screw a cover over them, parts can be shipped directly to Safeguard where the Anti-Slip surface is bonded directly.

When to use direct gritting:

- Makes sense logistically – Direct gritting may not be an option if the distance to Safeguard is not too great I.E. California. In this instance, engineered drawings can be sent to Safeguard for local fabrication.
- Parts are not too large or heavy and can be handled/manipulated internally I.E. no 1,000 lb. Lift Gates.
- The parts have very intricate shapes or cut-outs. While Safeguard can fabricate locally, smaller quantities may be costly.



Sizes

Safeguard is the leading innovator of Anti-Slip Safety products and offers the largest range of sizes on the market. Depending on the product and material of construction, size ranges are listed below:

Walkway Cover:



Available Base Material Construction:

- 1/8" Pultruded FRP Fiberglass
- 1mm Molded Fiberglass
- 18g Stainless Steel
- 18g G90 Galvanized Steel
- Flexible PVC (Vinyl).

Available Sizes:

- Depending on the base material, sizes range from 4' x 4' to 5' x 10'

Step Cover:



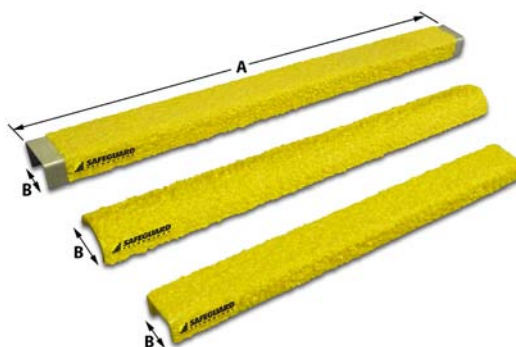
Available Base Material Construction:

- 1/8" Pultruded FRP Fiberglass
- 18g Stainless Steel
- 18g G90 Galvanized Steel

Available Sizes:

- FRP Covers are available up to 10' in length (A) and 14" deep (B) with a standard 1" vertical lip (C)
- Steel Covers are available up to 5' in length (A). Call for required depths
- Safeguard Landing Covers are now available in Molded FRP Fiberglass construction. Benefit from the size of a Walkway Cover with the design of a Step Cover. Call for available sizes.

Ladder Rung Cover:



Available Base Material Construction:

- 1/8" Pultruded FRP Fiberglass
- 18g Stainless Steel
- 18g G90 Galvanized Steel.

Available Sizes:

- 1/8" Pultruded FRP Fiberglass rungs are available in Half Round or Channel shape
- 18g Stainless Steel and 18g G90 Galvanized Steel are available in Channel Shaped only

Diameters (B) available to fit over Rung OD's of:

$\frac{3}{4}$ ", 1", 1-1/4", 1-1/2", 1-3/4" and 2".

- FRP length (A) up to 10'
- 18g Stainless and 18g G90 Galvanized length up to 4'

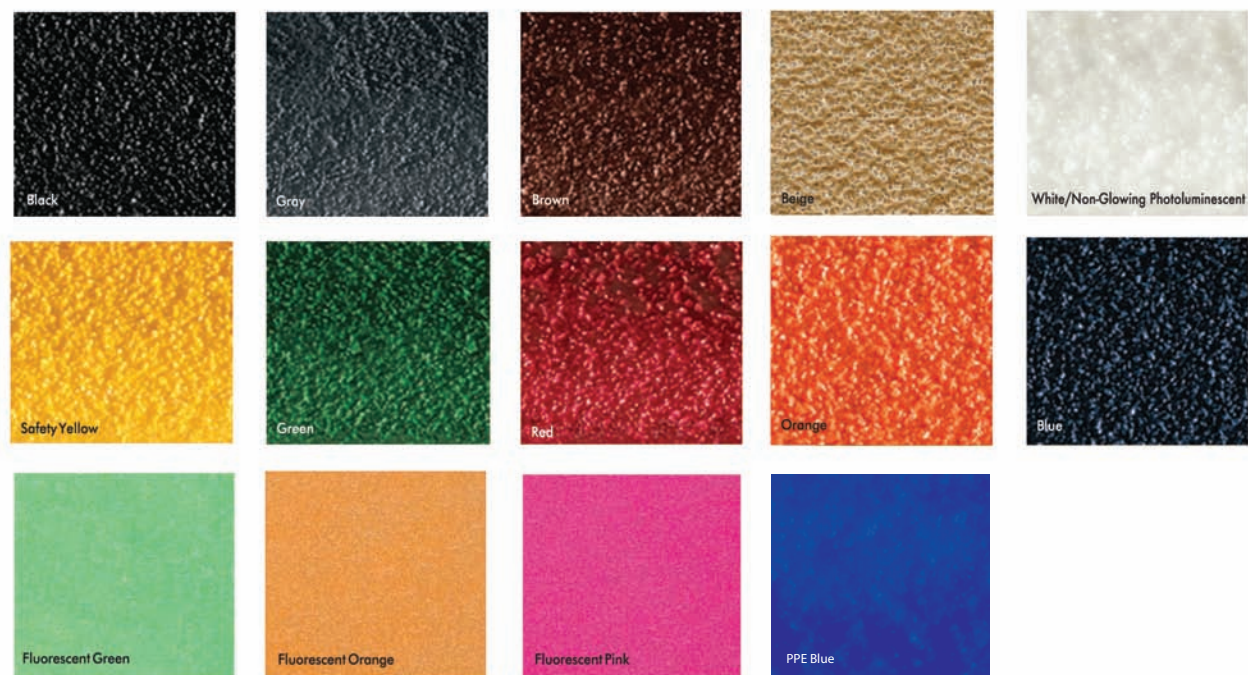


STANDARD COLORS

Colors:

Safeguard offers a wide range of standard colors including the Glo-Series of photoluminescent “Glow-in-the-dark” pigments. Custom color matching is also available. Colors can be combined for a two-tone configuration.

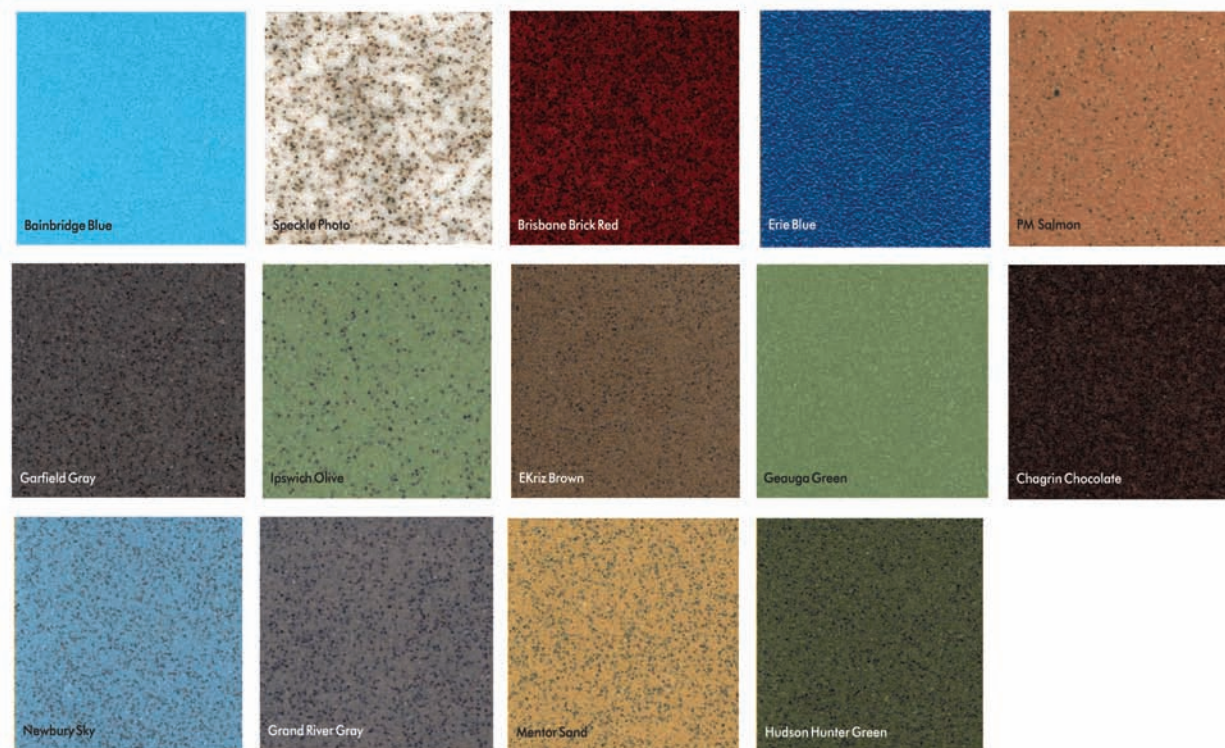
Standard Colors:



Glo-Colors: “Glow-In-The-Dark” Options



Premium Colors:



MESSAGING AND LOGOS

Descriptive messaging and Logos:

Make a statement, point the way to an emergency escape route or display your company's logo. We can incorporate logos, escape route information and directional markings on our covers. Our SAFEGUARD® Descriptive Marking is inlaid and will last for the lifetime of the product.

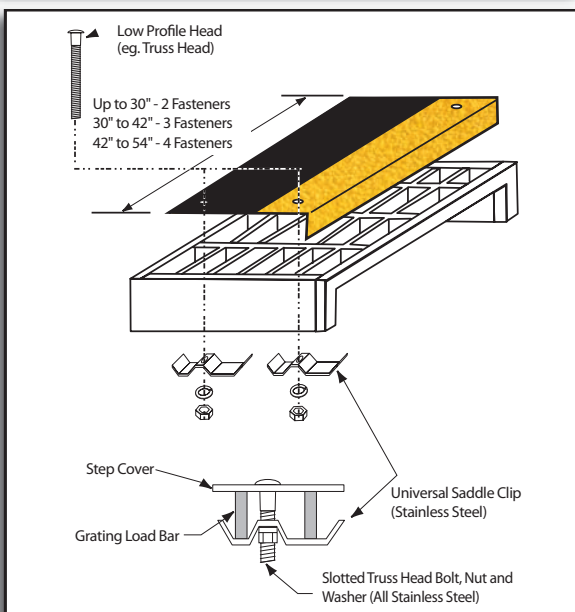
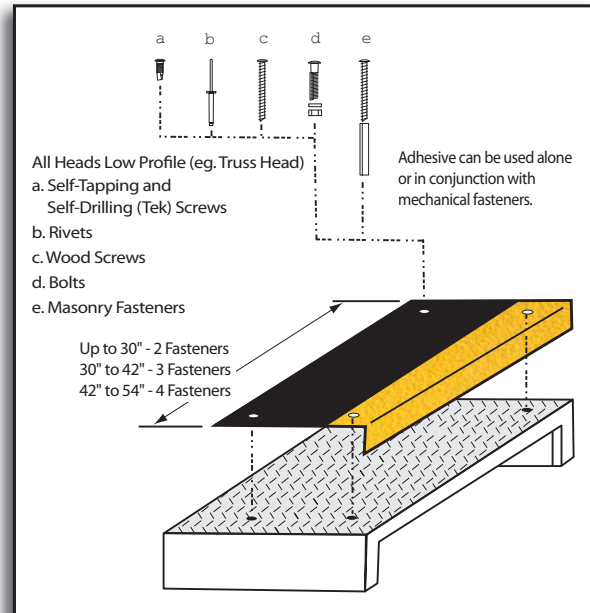
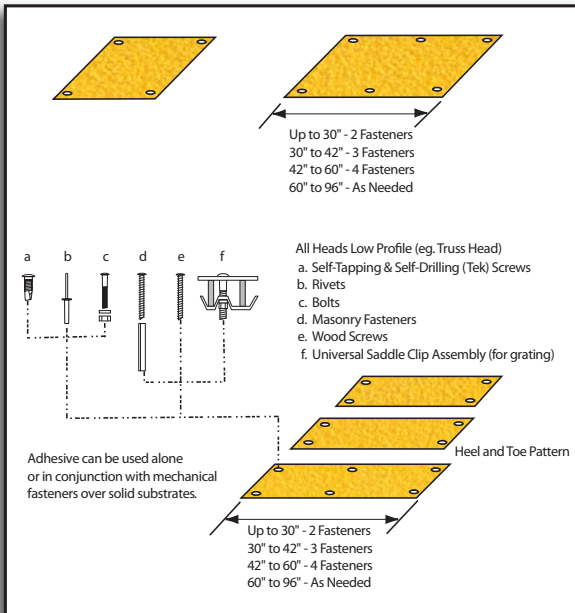


INSTALLATION

Installation:

Ground service equipment supplied by KCI is available with Safeguard Anti-Slip already installed. For retrofit applications on GSE, maintenance, and airport facility areas, detailed installation instructions are available online or by request.

Safeguard® Covers are non-load bearing and are manufactured for installation over existing surfaces. Installation is relatively quick, with little downtime. Safeguard provides a complete range of fastening accessories, as well as technical drawings for installation. Choose from Mechanical Fasteners (screws), Adhesive, or PSA (Pressure Sensitive Adhesive).



<http://www.safeguard-technology.com/anti-slip-covers/installation.htm>

Video online: <http://www.youtube.com/watch?v=7VV5rMvM6FA>



How to order:

Keith Consolidated Industries will be happy to guide you through the ordering process and recommend the appropriate product; base material of construction; coarseness; color and installation process for your application.

1. Determine the appropriate product(s) for the area you are addressing; Step Cover, Walkway Cover or Ladder Rung Cover.
2. Measure the area you wish to cover. Safeguard recommends leaving space along the perimeter to allow for idiosyncrasies. However, you can choose to cover as much of the surface you feel is necessary for aesthetic preferences.
3. Choose the base material of construction for your product. Use the product descriptions and size capabilities to guide you (Pg9). The size, shape and condition of the substrate may dictate the appropriate material of construction as will the preferred method of installation.
4. Determine which of the 6 grit sizes or grades of coarseness are appropriate for your application. Consider the location, type of foot traffic (flat work shoe, high heels etc.) and the substance (mud, oil, water etc.) the cover will be subjected to when choosing the grade.
5. Choose the preferred color or colors.
6. Finally, consider the preferred form of installation. Safeguard can provide the necessary hardware and/or adhesive as well as pre-drilled holes to aid in installation.

Cleaning:

Taking care of your Safeguard®Hi-Traction Covers requires minimal work. Regular cleaning will keep your covers free of debris so they can be most effective. Most household or industrial methods can be used. Detergents and mild degreasers work well. For stubborn deposits, use a stiff bristle brush. High pressure heated water (as used in food processing plants) may also be used in industrial environments.

CAUTION: Do not use mops. Safeguard's gritted cover surface will catch and retain fibers from the mop. Solvents are not generally recommended. If necessary, mild solvents may be used provided they are diluted and immediately hosed off with water.



Where SAFEGUARD is used in and around Airports

Ground Service Equipment



SGR Ramp



Combi Stand



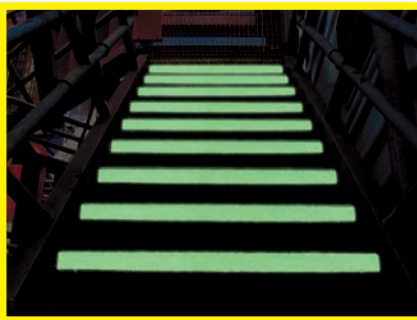
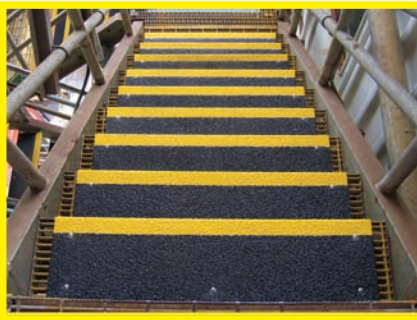
Turboway Ramp



TUGS & Belt-Loaders

Where SAFEGUARD is used in and around Airports

Maintenance and Facilities



Warranty:

SAFEGUARD TECHNOLOGY, INC. hereby warrants all Hi-Traction and HiGlo-Traction Safety Covers for a period of Five (5) Years from the date of invoice.



LIMITED WARRANTY

SAFEGUARD TECHNOLOGY, INC. hereby warrants that its Hi-Traction and HiGlo-Traction Safety Covers will be free from defects in workmanship and materials, and will retain their superior slip-prevention capability as determined by Coefficient of Friction measurements for a period of five (5) years from the date of invoice.

Should any such defect or failure occur, SAFEGUARD TECHNOLOGY, INC. shall replace the defective product(s) at no cost to the customer upon receipt of written notice from the customer. SAFEGUARD TECHNOLOGY, INC. at its sole option, may request that the defective item be returned to SAFEGUARD TECHNOLOGY, INC.'s headquarters for inspection. SAFEGUARD TECHNOLOGY, INC. shall not be obligated to replace any items deemed by the customer to be defective until the item it has been returned and has been inspected and approved by SAFEGUARD TECHNOLOGY, INC.

This warranty does not cover, and SAFEGUARD TECHNOLOGY, INC. assumes no liability for, failure or damages that result from (i) faulty or improper installation or misapplication of product including (but not limited to) poor surface preparation, incorrect choice of fasteners, incorrect product fit, incorrect installation or application of fasteners or adhesives, and improper application temperature, (ii) misuse or abuse including (but not limited to) the effects of heavy equipment, dollies, forklifts, unusually heavy objects, corrosive chemicals, heavy bending, abrasion and erosion, (iii) damage in transit, or other damage or failure that is the result of acts or omissions of other than SAFEGUARD TECHNOLOGY, INC., or beyond the control of SAFEGUARD TECHNOLOGY, INC.

SAFEGUARD TECHNOLOGY, INC.'s obligation under this warranty shall be limited to the repair, replacement, or modification, F.O.B. point of shipment exclusive of any freight, of any part or parts which prove defective, PROVIDED, (i) the parts or goods have been stored, installed, operated and maintained in accordance with generally accepted industry standards as well as the conditions of service and operating instructions specified by SAFEGUARD TECHNOLOGY, INC., and (ii) the customer promptly notifies SAFEGUARD TECHNOLOGY, INC. of the defect within the warranty period. SAFEGUARD TECHNOLOGY, INC. shall not be responsible for the costs of reinstallation.

Accessories, components, products or equipment supplied by SAFEGUARD TECHNOLOGY, INC. but designed and manufactured by others including (but not limited to) "peel and stick" (PSA) adhesives, and mechanical fasteners (e.g., bolts, saddle clips, and pop rivets supplied by other manufacturers and resold by SAFEGUARD TECHNOLOGY, INC.) shall not be covered by this warranty; such items carry only the warranty SAFEGUARD TECHNOLOGY, INC.'s supplier has conveyed to SAFEGUARD TECHNOLOGY, INC. with respect to such items.

THE ABOVE WARRANTY AND REMEDY ARE EXCLUSIVE AND IN LIEU OF ANY AND ALL OTHER REPRESENTATIONS, SPECIFICATIONS, WARRANTIES AND REMEDIES EITHER EXPRESS OR IMPLIED, HEREIN OR ELSEWHERE, OR WHICH MIGHT ARISE UNDER LAW OR EQUITY OR CUSTOM OF TRADE, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A SPECIFIED OR INTENDED PURPOSE. THE REMEDY SPECIFIED IN THIS WARRANTY REPRESENTS THE SOLE LIABILITY OF SAFEGUARD TECHNOLOGY, INC. AND THE SOLE REMEDY OF THE PURCHASER WITH RESPECT TO OR ARISING OUT OF THE PARTS, GOODS, OR SERVICES SOLD HEREUNDER, WHETHER BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHERWISE.

SAFEGUARD TECHNOLOGY, INC. WILL NOT BE LIABLE FOR ANY INDIRECT, CONSEQUENTIAL, INCIDENTAL, OR SPECIAL DAMAGES OF ANY KIND INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS OR REVENUE BASED ON THE OPERATION, NON-OPERATION OR USE OF THE PRODUCTS.

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