

Anti-Slip Product Overview



MINIMIZE THE RISK OF SLIPS, TRIPS, AND FALLS IN THE HARSHEST WORKING ENVIRONMENTS WITH PROVEN ANTI-SLIP SOLUTIONS

ULTIMATE IN SAFETY

TRAX™ anti-slip covers eliminate slips, trips and falls in any industrial or commercial environment by ensuring maximum traction for workers and pedestrians in numerous applications such as stairs, ladders, and walkways.

UBS Industrial Solutions is the authorized distributor of TRAX[™] anti-slip products for North America. Our products and custom applications are currently providing safer footing every minute of every day for thousands of people throughout the United States and Canada.

PHYSICAL PROPERTIES

TRAX™ anti-slip fiber-reinforced plastic (FRP) products are manufactured entirely by hand in a unique multi-step fabrication process, then trimmed and cut to size. By incorporating the separate elements of the finished product into one seamless fiberglass composite material, we build the strongest and most durable product available on today's market.

A base mix of fire-retardant polyester resins is interspersed with layers of immensely strong interwoven glass fiber. The color pigment is floated throughout the full thickness of the material, ensuring the color never wears off or becomes unsightly. The fused alumina anti-slip grit is then forced under pressure into the base mix while it is still wet, followed by a final layer of resin over the top of it all. This entire composite mix is then cured at optimum temperatures until fully hard.

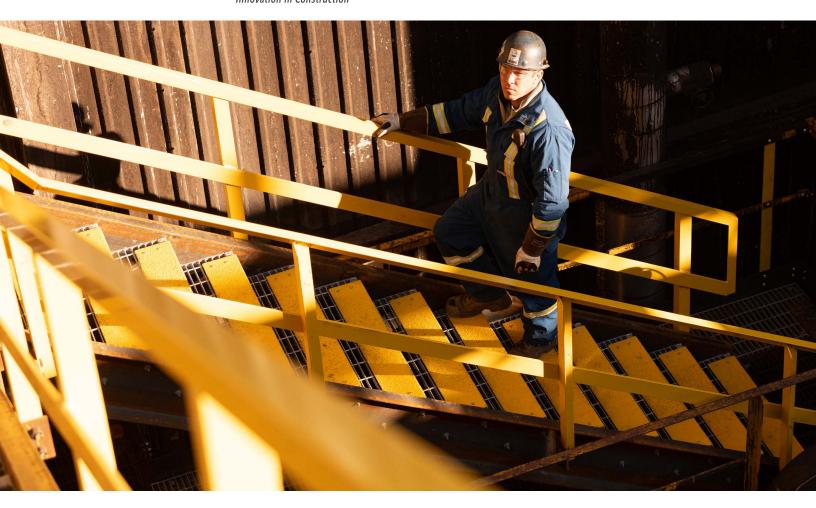
FRP does not dent, corrode, rot, delaminate, or support bacteria growth. It has a high strength to weight ratio being several times higher than steel on a weight-to-weight basis. It demonstrates a very high resistance to UV exposure and other environmental conditions, is highly resistant to chemical attack, and has an indefinite life span.

Other manufacturers adopt a layering or bonding method where an anti-slip coating is bonded to a preformed base such as steel or pultruded material. This method sets up a weak point where the two dissimilar components meet. This weak point will be further strained by stress set up within the product through movement associated with normal use or thermal expansion and contraction. Such a bonding method also has a low tolerance to impact and typically the top coating will peel away from damaged areas.

With TRAX™ products, you simply get the toughest, most durable, and long-lasting industrial anti-slip solutions available anywhere in the world.



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GRADES

The super tough abrasive grit used to form the rugged surface on TRAX™ anti-slip covers is one of the hardest compounds known to man. Fused alumina grit is bound within the glass reinforced body of all TRAX™ covers, presenting a top surface with almost diamond hard characteristics.

As different manufacturers have different names for each grade of their anti-slip material, the following comparisons of grading may be used for TRAXTM:

Grade	U.S. Grading	Microns (Average)	
Fine	60 mesh	250	
Industrial	16 mesh	356	
Offshore	12 mesh	686	
Extreme	8 mesh	940	

MOHS Scale Comparison

Diamond	1.0
Silica Carbide	9.7
Fuse Alumina	9.4
Hard Quartz	7.0
Steel	6.0

TRAX™ offers four grit sizes, which are categorized as follows together with typical applications:

FINE Commercial buildings, swimming pools



OFFSHOREOil platforms,
heavily soiled areas



INDUSTRIAL For most industrial applications



EXTREME Heavy snow and other extreme applications



LUMINESCENCE

GLOW-IN-THE-DARK capability can be included with TRAXTM anti-slip products to provide extremely long-lasting definition of step edges, ladder rungs, and directional indicators in low and no-light situations. A fully embedded, photoluminescent strip shows green in daylight and glows bright green/yellow in darkness and will glow for a minimum of twelve hours once fully charged by a light source. These treatments provide critical visibility of emergency evacuation and egress pathways in any facility.

The strontium aluminate pigment which is incorporated in all TRAX™ photoluminescent products glows more than ten times brighter than traditional glow products made using zinc sulfide. The pigment is charged by exposure to light sources such as fluorescent, incandescent, or unfiltered UV light and will emit luminescence after the activating light source is unavailable. This material is non-toxic and non-radioactive.

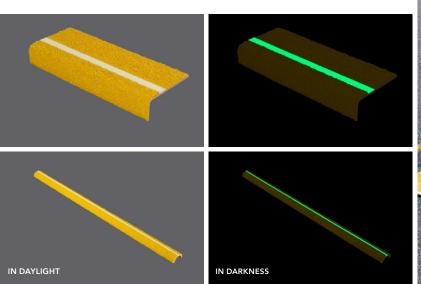
The table below indicates the luminescence decay timelines of our glow-in-the-dark product applications.

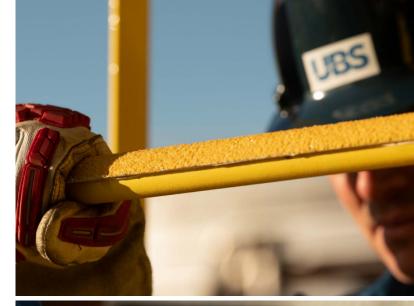
Luminescence performance has been measured and charted from initial darkness to a condition of 0.3 milli-candelas per square meter, which is the visibility threshold of the human eye.

The test samples were exposed to 1,000 lux illumination from a 150-watt xenon light source for five minutes immediately prior to the initial luminescence measurements.

Luminance Measures mcd/m²

Product	Initial	After 5 Minutes	After 10 Minutes	After 30 Minutes	After 60 Minutes	After 120 Minutes	Time to 0.3/ Mcd.m2
Strontium Aluminum	2,980	550	292	87	40	18	5,170











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MAINTENANCE AND SAFETY

TRAX™ anti-slip covers can be easily maintained to preserve their smart appearance and effective non-slip qualities. Because of the extreme hardness and chemical resistance of our covers, most cleaning can be achieved with medium pressure steam or water, mild degreasers, and general detergents. Citrus-based and most "green" cleaners can also be used successfully in industrial environments. Mild solvents can be used but strong solvents should be avoided. Stubborn soilage can be removed with a stiff synthetic brush or broom. Snow and ice can be removed using synthetic brooms and salt or other melting products. For heavier deposits, the use of plastic or composite shovels may be required.

Do not use steel shovels, scrapers, wire brushes or brooms.

TESTING DATA

SLIP RESISTANCE:

TRAX™ products have coefficient of friction (COF) test results produced from the three internationally most widely accepted slip meters:

- The Brungraber Mark II
- The English XL VIT
- The British Pendulum Slip Tester

Our products have been tested with the above apparatus and found to comply with and exceed the requirements of the following standards:

- ASTM F1677
- ASTM F1679
- NFPA 1901
- DIN 51130
- AS/NZS 4586

AVAILABLE COLORS



Safety Yellow, Black











Specialty colors: Red, White, Blue, Green, Gray



RESISTANCE TO FIRE:

Independent laboratory testing has confirmed that TRAXTM products will exhibit the following flammability characteristics:

- Rated Class 2, when tested according to BS 476, Part 7
- Rated self-extinguishing when tested in accordance with ASTM D 635
- Rated indices when tested according to AS 1530-Part 3, 1976:

Ignitability Index	15
Spread of Flame Index	9
Heat Evolved Index	8
Smoke Developed Index	8







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