Metal Floor Plates provide maximum protection against slips and falls in any environment where the accumulation of liquids, dust, grease or other substances creates potentially hazardous conditions. Unique laser-welded deposits deliver unparalleled durability and traction, making this technology a smart choice for high-traffic applications in workplace or public settings. ALGRIP® Metal Floor Plate is designed for easy cleaning and is intended for projects where a solid walking surface is desired.
Available in a wide range of standard materials, sizes and finishes, ALGRIP Metal Flooring is extremely versatile and used throughout many different industries. Custom fabrication and finishes are also available for projects with special performance or installation requirements.

Ross’ patented CNC laser deposition process applies more than 1,000 rugged, custom-alloy deposits per square foot in a highly precise and uniform pattern. The superior bond strength of these deposits not only increases the useful life, but also allows nearly any type of onsite fabrication without compromising the traction providing surface. And the smooth area between raised deposits helps deter the pooling of liquids and trapping of solids, which results in a product that exhibits exceptional self-cleaning characteristics.

ALGRIP is an ideal choice for a variety of applications requiring slip-resistant walking surfaces, such as:

- Work platforms
- Production line crossovers
- Inclined ramps
- Catwalks
- Utility vault covers
- Loading platforms
- Sidewalk/culvert covers
- Steps and stairs
- Food processing equipment
- Industrial machinery platforms
- Assembly line floors
- Trench covers
- Dock boards
- Decks/mezzanines

Industries

- OSHA, FDA or USDA compliance
- Institutional
- Food Processing
- Public Works
- Industrial Manufacturing
- Mass Transit
- Utilities
- Oil and Gas
- Pharmaceuticals
- Marine
- Metals and Mining
- Government
ALGRIP Slip-Resistant Metal Flooring is manufactured using technologically advanced machinery developed by Ross to ensure the highest level of quality and consistency. We start with the base material that best suits your application. Choose from various grades of lightweight aluminum, corrosion-resistant stainless or durable carbon steel in plate or sheet form.

Next, we laser-weld a minimum of 1,000 anti-slip deposits per square foot to the traffic side of the selected material. These welded deposits penetrate the metal substrate to produce a permanent, sub-surface bond tested to a maximum hardness of 60 on the Rockwell C Scale and a maximum static coefficient of friction of 0.97 COF in accordance with ASTM C1028-89. Finally, the plate is custom fabricated, if needed, using a variety of processes and finishes to meet your specific project requirements. The result is a solid metal floor plate with durability and slip resistance properties like no other.

Additional features include:

- Processed in mill size sheets or plates
  - Widths: 48", 60", 72"
  - Lengths: 96", 120", 144"
- Substrate thickness: starting at 14 gauge (0.075")
- Standard row and deposit spacing yields 1,053 ALGRIP deposits per square foot
- Standard deposit height is 0.025" nominal
- See optional features for material choices and finishes
Material Options

- Custom sheet and plate sizes
  - Widths: up to 96”
  - Lengths: up to 240”
- Custom row and deposit spacing
- Heavy deposit height of 0.035” nominal
- Substrates
  - Carbon Steel – Ideal for structural and pedestrian traffic applications in roadways and sidewalks
    - ASTM A36 (structural plate) - structural applications
    - A1011 (hot rolled sheet) – pedestrian traffic
    - Thickness: starting at 14 gauge
  - Stainless Steel – Ideal for food processing and clean room environments. The use of stainless steel facilitates compliance with FDA and USDA regulations. It is virtually maintenance free and provides unsurpassed slip resistance in areas subject to the accumulation of moisture or debris
    - ASTM A240; alloy 304 and 316
    - Thickness: starting at 14 gauge
  - Aluminum – Ideal where weight and corrosion resistance are paramount concerns
    - ASTM B209; alloy 3003, 5052 or 6061
    - Thickness: starting at 0.090”

Post-processing of finished plates to customer requirements:

**Punching & Drilling** – ALGRIP is easily punched or drilled to accommodate fastening devices or bolted installations where plate is required to be removable.

**Welding** – Both the top traction surface and bottom bearing surface can be easily welded without damaging the slip-resistant walking surface.

**Forming** – The substrate penetration of the skid-resistant deposits allow for clean forming of the plate without cracking or delaminating the traction surface.

**Countersinking** – Common metalworking tools can be used to countersink the ALGRIP substrate. Countersunk fastening eliminates potential tripping hazards created by protruding fastening devices.

**Shearing** – ALGRIP can be fabricated to size by economical mechanical shearing without cracking or damaging the safety providing traction surface.

**Flame Cutting** – Intricate or radial cuts are easily accomplished using oxygen-acetylene or plasma gas cutting tools.
Finish Options:

• Carbon Steel:
  - Mill
  - Hot-dip galvanized per ASTM A123 after fabrication

• Stainless Steel:
  - 2B (sheet)
  - Mill (plate)
  - Abrasive blast matte finish

• Aluminum:
  - Mill

Risk Reward Analysis

The risk-reward calculation for safety flooring products generally starts with common diamond/checker floor plate. It provides low COFs and little or no safety when wet, oily or dusty. The initial low cost is tempting, but the risk, and true cost, is high.

Surfaces that have been treated with textured liquid coatings or adhesive-adhered products offer a fair level of safety when initially installed, but they often require continuous and costly maintenance. When subjected to wear, they can quickly deteriorate.

Flame-sprayed coatings provide only a surface treatment. While they provide good slip-resistance, fabrication can be problematic. They also present major cleaning problems because of the many cavities on the surface.

When you invest in ALGRIP Slip-Resistant Products, you have selected a safety-system surface that is superior in all aspects and wins the risk/reward competition hands down. Employees and employers are provided the highest level of protection from slips and falls.
Technical Information

Test Results

• Tested in accordance with ASTM C1028-89, “Standard Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter Method”

<table>
<thead>
<tr>
<th>Surface</th>
<th>COF Dry</th>
<th>COF Wet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Leather</td>
<td>0.88</td>
<td>0.91</td>
</tr>
<tr>
<td>Dry Rubber</td>
<td>0.94</td>
<td>0.92</td>
</tr>
<tr>
<td>Dry Neolite</td>
<td>0.97</td>
<td>0.96</td>
</tr>
</tbody>
</table>

• Tested in accordance with ASTM F1679, “Standard Test Method for Using a Variable Incidence Tribometer (VIT)”
  o Carbon Steel: Dry surfaces: >0.99 COF, Wet surfaces: >0.93 Slip-Resistance Index
  o Stainless Steel: Dry surfaces: >0.98 COF, Wet surfaces: 0.80 Slip-Resistance Index
  o Aluminum: Dry surfaces: >0.96 COF, Wet surfaces: 0.89 Slip-Resistance Index

Applicable Standards

• OSHA - Subpart D of 29 CFR Part 1910 - Walking and Working Surfaces
• 2010 ADA Standards for Accessible Design (incorporates Title II regulations at 28 CFR 35.151; Title III regulations at 28 CFR part 36, subpart D; and the 2004 ADAAG at 36 CFR part 1191, appendices B and D; effective on March 15, 2012)
• 2012 International Building Code (IBC), Section 1003.4 Floor surface
• ANSI/ASSE A1264.1-2007, “Safety Requirements for Workplace Walking/Working Surfaces and Their Access; Workplace, Floor, Wall and Roof Openings; Stairs and Guardrails Systems”
• ANSI/ASSE A1264-2-2012, “Provision of Slip Resistance on Walking/Working Surfaces”
Quality Control
ISO 9001:2015

Installation Considerations
Product can be fabricated, formed, cut and welded without affecting the traction-providing surface, therefore allowing for a wide range of installation methods.

Due to the high hardness of the surface, tooling used in fabricating ALGRIP plate may experience wear rates higher than normal. Use of tooling designed for high hardness materials is recommended.

Availability & Cost
Ross offers both standard and custom-sized ALGRIP Metal Floor Plate in a wide range of materials and thicknesses. Standard mill size sheets or plates offer the best value and shortest lead times.

Warranty
Ross warrants that all if its manufactured products shall remain free of defects in material and workmanship under normal use for a period of one year from the date of delivery.

Maintenance
ALGRIP Metal Floor Plate is virtually maintenance free, requiring little more than proper cleaning of dirt and debris from the flat, smooth area between deposits.

Technical Services
Custom fabrication of ALGRIP plate to customer requirements.
Ross offers a complete line of ALGRIP Slip-Resistant Products

- ALGRIP® Metal Floor Plate
- ALGRIP® Bar Gratings
- ALGRIP® Stair Treads, Tread Repair Covers & Nosings
- ALGRIP® Ladder Rungs & Covers
- ALGRIP® Trench & Expansion Joint Covers