

# ***IG GritWeld™ -Slip Resistant Surface***

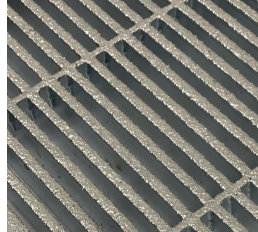
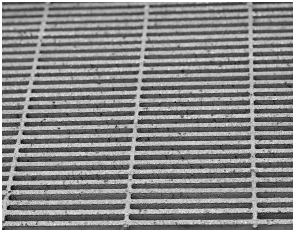


***"The smart choice for a slip resistant application"***

# Introduction



## Manufacturing and Fabricating Excellence



### IG GritWeld™

IG GritWeld™ utilizes processes developed for thermal sprayed hard surfacing and incorporates anti-skid ingredients to the super hard substrate. IG GritWeld™ offers the ultimate in traction and longevity for extreme environments.

- Available for Carbon Steel, Stainless Steel, & Aluminum.

Applications where IG GritWeld™ is applied will see an increased coefficient of friction (COF) that meets and exceed industry standards. It also meets the Americans with Disabilities Act (ADA) requirements.

### Applications

- Commercial
- Government
- Manufacturing
- Food & Beverage
- Pedestrian Walkway
- Oil & Gas
- Ski & Recreational
- Wet/Slippery Environments
- Assembly Lines
- Mass Transit



### Safety First

Work place injuries add up to over \$30 Billion in medical costs each year; with 1 in 5 falls causing serious injury.

- ✓ IG GritWeld™ is designed to improve safety.



Challenging workplace conditions require unique solutions that will provide a durable, long lasting surface. The application of IG GritWeld™ can be applied to open floor designs using bar grating, solid surface plate material, stair treads, or stair tread nosing only; making this product a diverse application for all your needs.

Traditional traction surfaces can become unsafe under wet conditions. Epoxy coatings can wear off with extended use. IG GritWeld™ is a smart investment in safety, performance, and durability.



### Specifications

- Meets the Americans with Disabilities Act (ADA) requirement for slip resistance.
- Exceeds ANSI/NFSI B101.3-2012 wet dynamic COF for high traction.
- Exceeds ANSI A137.1-2012 wet dynamic COF requirements.
- Thermally applied material provides longevity.
- Galvanized: Pre or Post Galvanized options.



# Specifications

**Testing:** Slip-resistance is commonly tested in a laboratory setting by measuring for static coefficient of friction (COF) in accordance with ASTM procedure C-1028. This testing procedure assigns a value to the traction surface while that surface is tested under wet and dry conditions. Because the greatest concern for slip resistance relates to worker/pedestrian safety, this procedure can be further refined to test each condition using samples of two popular shoe sole materials, rubber and neolite (composition). The results of these tests are expressed in numerical values with higher values indicating increased slip-resistance.

## ANSI A137.1/A326.3 Dynamic Coefficient of Friction Test

The American National Standards Institute (ANSI) published the A137.1-2012 American National Standard test for measuring dynamic coefficient of friction (DCOF) of common hard-surface indoor level floor materials in 2012. This ANSI standard was incorporated as a requirement in "Section 2103.6 Ceramic Tile" of the 2012 International Building Code published by the International Code Council. (It was removed for the next edition in 2015.) That section states that "Ceramic tile shall be defined in, and shall conform to the requirements of, ANSI A137.1." ANSI published A326.3 in 2017, which uses the same test method as A137.1, but allows for all hard flooring materials to be tested, adds some disclaimers, and describes the method for testing in the field



SURFACE	Finish	Sample	Avg. Wet DCOF	Traction Level
Carbon Steel Plate	TYPE 1: Pre Galvanized	1	0.93	High
Carbon Steel Plate	TYPE 1: Pre Galvanized	2	0.93	High
Carbon Steel Plate	TYPE 1: Pre Galvanized	3	0.92	High
Carbon Steel Plate	TYPE 2: Post Galvanized	1	0.74	High
Carbon Steel Plate	TYPE 2: Post Galvanized	2	0.77	High
Carbon Steel Plate	TYPE 2: Post Galvanized	3	0.82	High
Stainless Steel Plate	TYPE 3: Mill	1	0.90	High
Stainless Steel Plate	TYPE 3: Mill	2	0.91	High
Stainless Steel Plate	TYPE3: Mill	3	0.92	High



*The code requires a minimum wet dynamic coefficient of friction (DCOF) of 0.42 "for tiles in level interior spaces expected to be walked upon wet."*

**IG GritWeld™**  
Stair Tread Nosing



# Specifications

## British Pendulum Test

AS HB198:2014 (AS/NZS 4586) Pendulum Sustainable Slip Resistance (SSR) Test Tested before and after wet abrasion using a 3M heavy duty green pad loaded with 1000 grams (2.2 lb) of weight. This report applies to the sample tested only. The pendulum is the national standard test device for pedestrian slip resistance in at least 50 nations on five continents and has been endorsed by Ceramic Tile Institute of America since 2001. It has been in continuous use since 1970 for assessing slip resistance of pedestrian surfaces, and is the most widely accepted slip resistance test device worldwide. The trailing edge of a three-inch-wide spring-loaded slider, which is attached to the end of a 20-inch pendulum, contacts the tested surface when the pendulum is released from a horizontal position. The slider contact path length is pre-set to 124-126 mm (approximately 5 inches). The pendulum pushes a pointer that stops and stays at the high point of the pendulum's swing. For more information and video, please visit <https://safetydirectamerica.com/pendulumfloorsliptest>. The hard Four S ("Standard Shoe Sole Simulating") rubber is generally used for pendulum testing unless the flooring area will be primarily used by barefoot people, in which case the softer TRL rubber may be used. The soft rubber is more representative of bare feet and soft shoe soles, such as is usually found on running shoes.



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### TYPE 1: Pre Galvanized Carbon Steel

**Pendulum Test Value (PTV), as received, with Four S (96) hard rubber slider:**  
Dry: 82 Wet: 75  
**Pendulum Test Value, after 500 cycles of abrasion, with Four S rubber slider:**  
SSR Wet: 65

### TYPE 2: Post Galvanized Carbon Steel

**Pendulum Test Value (PTV), as received, with Four S (96) hard rubber slider:**  
Dry: 79 Wet: 69  
**Pendulum Test Value, after 500 cycles of abrasion, with Four S rubber slider:**  
SSR Wet: 67

### TYPE 3: Stainless Steel

**Pendulum Test Value (PTV), as received, with Four S (96) hard rubber slider:**  
Dry: 78 Wet: 74  
**Pendulum Test Value, after 500 cycles of abrasion, with Four S rubber slider:**  
SSR Wet: 70

## Pull-Test

ASTM D 4541 Standard test method for Pull-Off Strength of Coatings. Bond Strength: Min. 1000 PSI

Average Bond Strength:

SURFACE	LBS/in <sup>2</sup>
Carbon Steel	4585 lbs
Pre Galvanized CS	3421 lbs
Post Galvanized CS	4085 lbs
Stainless Steel	3697 lbs
Aluminum	3453 lbs



High Pendulum Test Values indicate potentially good traction. AS HB 198: 2014 recommends a range of situation-specific minimum Pendulum Test Values as shown in the attached table below. The Ceramic Tile Institute of America (CTIOA) and United Kingdom Slip Resistance Group (UKSRG) make a more general recommendation and say that a minimum pendulum test value of 36 for level floors is considered "low slip potential". According to CTIOA and UKSRG, values of 25-35 are classed as "moderate slip potential". Values of 0-24 have "high slip potential". Slip resistance can be affected by factors such as floor coatings, abrasives, detergents, contamination, chemical treatments, and wear. The abrasion method is used to assess the propensity of flooring to lose wet slip resistance. A typical specification for Sustainable Slip Resistance of new flooring is that the wet PTV after 500 cycles of abrasion should be 35 or higher.