



# **TECHNICAL BULLETIN**

A Product Of



### Who is Jensen MetalTech?

Jensen MetalTech, a division of Jensen Precast, designs, engineers, and manufactures steel and aluminum access hatches, doors, covers, grates, ladders, and accessories for utility applications. We provide our customers with industry leading designs engineered and load tested to a variety of different loading conditions unique to each project. Jensen MetalTech uses only the highest quality materials to ensure maximum service life and minimal maintenance. Whether your next project calls for a standard size, or a specific design or load requirement, you can count on Jensen MetalTech to provide the knowledge and expertise utility companies and agencies have come to trust.

### What is TraxPlate?

TraxPlate is a slip resistant surface applied to both aluminum and steel. TraxPlate provides a highly wear resilient surface with ideal slip resistant characteristics. TraxPlate far exceeds conventional non-slip materials, such as diamond plate, for slip resistance in both wet and dry applications.

### **Material Description**

TraxPlate is a slip resistant thermally bonded metallic surface that binds mechanically to the base material. The finished surface has a resemblance similar to sandpaper. By varying the application parameters, different surface "roughness" can be achieved. The use of special additives in the bonding material affects the properties of the surface making it harder and more wear resistant than the base material. Strict quality control measures and automated processing ensure superior performance and consistency.

### **Applications**

TraxPlate may be used to reduce slipping hazards on flooring, ladders, stairways, utility covers, catwalks, and other products exposed to pedestrian or vehicular traffic. TraxPlate can be applied to finished products or raw plate that is then further processed. Because of the high bond strength, TraxPlate holds up to conventional manufacturing processes such as welding, shearing, and forming.



## **Finishes**

**Raw:** The surface as applied will be the typical color of the material (i.e. aluminum or steel).

Painted: TraxPlate can be painted to meet the customer's color requirements using water or oil based paints or epoxies. Note, however, that the application of paint will partially reduce the slip-resistant characteristics of the plate. Coarse or medium texture is recommended for painted finishes.

**Galvanized:** TraxPlate steel materials can be provided with a hot-dip galvanized finish per ASTM A123. As with all wire spray finishes, care must be taken during the plating process to avoid chemically attacking the bond layer of the coating. Refer to TraxPlate plating guidelines for specifics.



### **Specifying TraxPlate Surface Roughness**

#### Fine

The fine texture approximates that of 80 to 100 grit sandpaper, with an average particle size of approximately .010" to .015." This finish provides similar slip resistance characteristics to other finishes. The finer texture should be used where a courser finish would be undesirable. For example, where falling on an excessively rough surface could cause personal injury, the finer texture may be preferred.

With fine texture, special consideration should be given for additional finishes such as paint or galvanizing, which tend to fill in the texture and reduce slip resistance.



Fine TraxPlate Finish



Medium TraxPlate Finish

#### Medium

Medium roughness approximates that of 36 grit sandpaper, with an average particle size of approximately .020" to .030". This finish provides excellent durability and slip resistance and is the default finish when unspecified.

The medium finish accepts most paints and galvanizing without a significant loss in slip resistance.



Coarse TraxPlate Finish

#### Coarse

Coarse roughness results in an average particle size from .030" to .040". This is a preferred finish when maximum slip resistance is needed, when thicker coatings are to be applied, or where dust and debris would otherwise fill in the texture and reduce its effectiveness.

#### TraxPlate Steel\*

## Bond Strength: >5000 psi (ASTM C 633-01, 2008) Slip Resistance: Dry: >1.00 (ASTM F-1679)

Dry: >1.00 (ASTM F-1679) >1.04 (ASTM C-1028)

Wet: >1.00 (ASTM F-1679) >1.14 (ASTM C-1028)

Abrasion Resistance: .003 (ASTM C 418-05)

Surface Hardness: HRC 35

Coating Weight: Approximately .75 lbs / sq-ft.

Machinability Good

Coating Composition (wt %): Fe 92.2%
Al 5%
C 2%

C 2% Mn 0.8%

Steel TraxPlate exceeds the slip resistant requirements of the following standards:

OSHA Subpart D

OSHA 29 CFR 1926.754 (c) (3).

American's with Disabilities Act, ADA 28CFR36-ATBCB National Fire Protection Association NFPA 1901, 15.7.3

ASTM D-2047 ASTM F-1679 ASTM C-1028 UL 410

#### **Coefficient of Friction Recommendations**

ADA Flat/Incline Surfaces 0.60 COF/0.80 COF

 OSHA
 0.50 COF

 NFPA
 0.68 COF

Abrasion Resistance Recommendation

ASTM C408-05 .03

Bond Strength Recommendation ASTM C-G33-01 4000 PSI

### TraxPlate Aluminum\*

Bond Strength: >6000 psi (ASTM C 633-01, 2008)

Slip Resistance:

Dry: >1.00 (ASTM F-1679)

>1.04 (ASTM C-1028)

Wet: >1.00 (ASTM F-1679)

>1.06 (ASTM C-1028)

Surface Hardness:  $R_{15T}$  40-50 ( $R_B$  30-75 converted) Coating Weight: Approximately .26 lbs / sq-ft.

Machinability Good

Coating Composition (wt %): Al 100%

Aluminum TraxPlate exceeds the slip resistant requirements of the following standards:

**OSHA Subpart D** 

OSHA 29 CFR 1926.754 (c) (3).

American's with Disabilities Act, ADA 28CFR36-ATBCB

National Fire Protection Association NFPA 1901, 15.7.3

ASTM D-2047 ASTM F-1679

**ASTM C-1028** 

UL 410

Aluminum TraxPlate meets the following specifications:

Dept. of Defense MIL-W-67 12C Table II, Aluminum

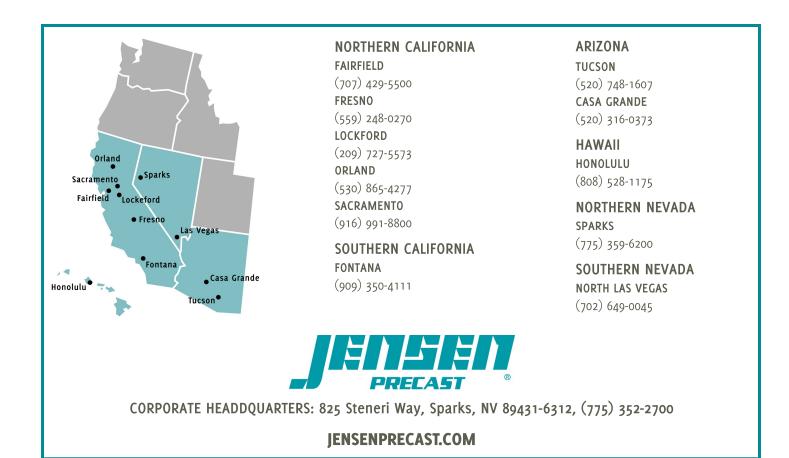
PWA 1320F

SNECMA DMR33-012

Garrett FP5045

GE CF6 Overhaul Manual Op. #70-49-90

<sup>\*</sup>Independent 3rd party test results available upon request.



Jensen Precast is among the largest independently owned precast concrete companies in the United States. Since 1968, we have grown our business through successful relationships between the contractors we sell to, the engineers who specify us, and the communities which use our products. As a division of Jensen Precast, Jensen MetalTech continues the corporate philosophy of dedication to customer satisfaction.

Jensen Precast designs and manufactures standard and custom precast concrete products to meet infrastructure needs for electric, gas, water, and telecom utility distribution, as well as highway construction, retaining walls, wastewater, stormwater, and sewer applications.

Jensen MetalTech designs, engineers, and manufactures steel and aluminum access hatches, doors, covers, grates, ladders, and accessories for utility applications.





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