



## PRODUCT DATA SHEET:

### SECTION 32 17 26 – TACTILE WARNING SURFACING DETECTABLE WARNING SURFACE PANELS IRON DOME® & IRON DOME® SECURE FLANGE CAST IRON PLATES

#### Manufacturer:

**ADA Solutions, a Division of SureWerx USA Inc.**

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**Description:** IRON DOME® & IRON DOME® SECURE FLANGE Cast Iron Detectable Warning Surface Plates with an in-line truncated dome pattern are embedded in newly poured concrete at pedestrian crossings, boarding platforms, and rail crossing locations. The Iron Dome® Plates are extremely durable and wear resistant. The high-strength plates resist damage from mechanical snow removal methods in colder climate regions.

**Compliance:** Iron Dome® Plates are compliant with the following guidelines and requirements:

- American Barriers Act (ABA) Accessibility Standards
- ADA Accessibility Guidelines (ADAAG)
- Department of Transportation ADA Standards for Transportation Facilities (2006)
- Department of Justice ADA Standards (2010)
- Public Rights-of-Way Accessibility Guidelines (PROWAG)
- Texas Accessibility Standards (TAS) 2012
- AASHTO M 333 Standard Specification for Detectable Warning Surfaces
- International Code Council (ICC) A117.1 Accessible and Usable Buildings and Facilities

**Material:** Plates are Made in the USA. The cast iron complies with ASTM A159-83 (2015) Grade G3000, ASTM A48-03 (2016), and AASHTO M105-09 (2013) Grade 30B.

**Finish:** Standard product is provided in a natural unfinished state which will develop a natural patina. Post applied finishes are available in the following colors:

- Federal Yellow FS No. 33538
- Brick Red FS No. 20109
- Clay Red FS No. 22144
- Black FS No. 37038

**Warranty:** Guaranteed in writing for a period of fifteen (15) years from date of Contract's final completion. The guarantee includes manufacturing defects, breakage, and deformation.

#### Panel Sizes:

- 24" x 12" (609.6 x 304.8 mm) with zinc alloy embedment anchors
- 24" x 24" (609.6 x 609.6 mm) with **Secure Flange** embedment features
- 24" x 30" (609.6 x 762 mm) with zinc alloy embedment anchors. *Note: 24" x 30" with **Secure Flange** embedment features to be available Spring 2024.*

**Tapered Wedges:** Tapered wedge plates are available for creating a wide range of radius installations using the rectangular plate sizes listed above. Wedge plate options include R15 (Radius 15'), R20 (Radius 20'), R25 (Radius 25'), and R30 (Radius 30'). Wedges include zinc alloy embedment anchors and are connected to rectangular plates prior to installation.



**Domes:** Raised truncated domes of 0.2" (5.0 mm) nominal height, base diameter of 0.9" (22.8 mm) and top diameter of 0.45" (11.4 mm).

**Dome Spacing:** Iron Dome® Plates have a 2.4" (60.9 mm) dome spacing in square grid pattern. ADA Standards and Public Rights-of-Way Accessibility Guidelines require truncated dome spacing range of 1.6"-2.4" (40.6-60.9 mm).

**Securement:** Iron Dome® Secure Flange Plates (24x24 & 24x30) have a strong bond to the concrete surface. Structural embedment ribs and perimeter flange provide positive securement to the substrate and resist lateral movement. The smaller 24x12 and tapered wedge plates include corrosion resistant zinc alloy concrete anchor inserts minimum 1.5" (38.1mm) long with 0.25" (6.35 mm) x 1.5" (38.1 mm) long stainless-steel bolts. Holes located in the top surface of the plates allow for venting during installation in wet concrete.



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**Installation:** Iron Dome® Plates are wet set into a minimum 2 ½" (63.5 mm) depth of concrete (4"-7" slump). Plates are pressed into the wet concrete and tamped or vibrated to ensure that there are no voids or air pockets. The field level of the plates is to be flush to the adjacent concrete surface. Multiple panels can be

installed in series to match specific curb ramp widths or length of specific installation.

**Cutting:** Iron Dome® Plates can be field cut to custom sizes or angles using a circular saw or angle grinder with an abrasive cut-off wheel rated for cutting heavy gauge ferrous metals.

#### Product Testing and Physical Properties:

Standard	Standard Description	Value
ASTM C 1028	Standard Test Method for Determining the Static Coefficient of Friction (Slip Resistance)	0.93 Dry, 0.91 Wet
ASTM A 48	Standard Specification for Gray Iron Castings	Complies Class 30B Gray Iron
ASTM A 159	Standard Specification for Automotive Gray Iron Castings	Complies
ASTM D 638	Tensile Strength	36,000 psi
AASHTO M105	Standard Specification for Gray Iron Castings	Complies Class 30B Gray Iron
ASTM D5420	Standard Test Method for Impact Resistance of by Means of a Striker Impacted by a Falling Weight (Gardner Impact)	600 in-lbs minimum
FM 5-594	Florida Method - Test for Wear Resistance of Surface Applied Detectable Warning Surfaces	0.00189 g/cm <sup>3</sup>

