



P.O. Box 133  
11541 N. 59<sup>th</sup> Ave. W.  
Mingo, IA 50168  
(641) 363-4330 – phone  
(641) 363-3200 – fax  
office@mingoproducts.com  
www.mingoproducts.com

**Maher Products, Inc.  
DBA Mingo Products, Inc.**

## ***DetectaShield* Detectable Warning Panels**

*DetectaShield* panels are designed to help visually impaired individuals easily detect intersections by foot or cane and allow cities and states to comply with the Americans with Disabilities Act (ADA) Section 4.29.2.

### ***DetectaShield* Features**

- Compliant with the 2010 ADA Standards for Accessible Design & Accessibility Guidelines
- Dual traction design - Located on both truncated domes and bands of panel surface
- Smooth dome sides increase audibility when cane strikes the surface
- Durability - Freeze/Thaw .09% avg. exceeds ASTM C1372-04 requirement of <1%
- Strength - 6,000 PSI far exceeds ASTM C-39 requirement of 3,500 PSI
- UV resistant - does not degrade in sunlight
- Chemical resistant - designed to resist the most corrosive of substances
- Sealed concrete - designed to stand the test of time
- Expansion - Expands and contracts with the concrete: (.007in/10 ft/10°F)
- Fiber reinforced - alkaline resistant glass fiber concrete for toughness
- Non-combustible
- Safe and eco-friendly
- Made in the USA

*DetectaShield* warning panels are produced in 24" x 24" squares and are 1 1/8" in thickness. The truncated domes are textured and meet ADA requirements for size, shape, and spacing. The panels average more than 6,000 PSI: 1,000 PSI stronger than most concrete used to pour sidewalks and medians that the panels are set in. *DetectaShield* panels are produced with an Alkaline-Resistant Glass Fiber Reinforced Concrete (GFRC) which helps add flexural strength as well as overall compressive strength. We have also ensured that the co-efficiencies of the *DetectaShield* panels emulate that of the concrete that surrounds it. This enables both the panel and the concrete around it to expand and contract at the same rate as temperatures fluctuate and help prevent the panels and the surrounding concrete from cracking or popping loose. *DetectaShield* also features a keyway in the side of the panels that provides an area that locks into the concrete that surrounds it, creating an easy, durable installation.

*DetectaShield* is a leader with its dual traction design. While giving the panel architectural appeal, this design also enhances traction underfoot and increased audibility when struck by a cane.

*DetectaShield* is produced in standard colors of brick red, charcoal and "safety yellow". We can also provide a 30" x 24" panel to use in applications that require 5' wide warning areas.



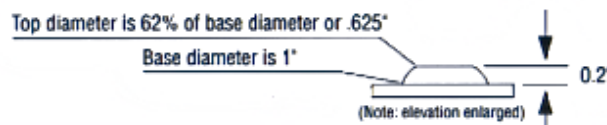
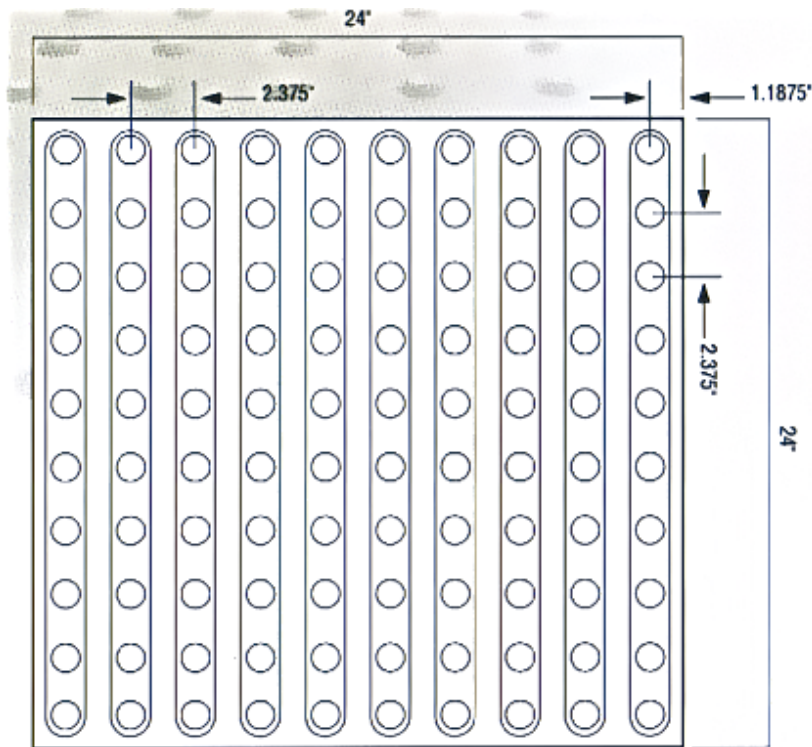
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### ***DetectaShield* Technical Information:**

Compression Strength:	ASTM C-39 Requirement 3,500 PSI	<i>DetectaShield</i> 6,000+ PSI
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Freeze/Thaw Durability:	ASTM C1372-04 Requirement <1.0%	<i>DetectaShield</i> .09%*
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\*Average after 100 cycles



### ***DetectaShield* Warranty**

The manufacturer shall warrant the detectable warning surfaces to be free from defects and fading or discoloring for a period of five years from date of installation. The installation contractor shall warrant the installation to be free from defects for the same period. Warranty does not cover damage in whole or in part by conditions beyond the control of the manufacturer or installer, including but not limited to: use for which the material is not designed; casualty; faulty design or construction; failure of the substrate; damage caused by neglect or improper maintenance procedures and other causes not specified. This warranty is in lieu of all other warranties, expressed or implied, including but not limited to any warranty of merchant ability of fitness for a particular purpose.



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## **DetectaShield Installation Instructions**

### **Wet Setting:**

1. Start this process after concrete has been poured. Be sure concrete is still plastic enough to work the panels into.
2. Determine DOT compliant location and mark out where the panels will be installed.
3. Dampen the bottom and sides of the warning panel for better adhesion.
4. Start with the leading edge of panel in concrete. Tilt the panels into place one at a time being sure not to drop them or slam them against each other.
5. Float panel in making sure no pockets of air are under panel.
6. Using a finger or tool, work around the edges to ensure the keyways on the sides of the panels are filled with concrete, eliminating all air from the sides of the panels.
7. Work the panels down removing excess concrete as necessary until panels are set in level with the sidewalk and the domes slightly raised above.
8. Finish around panel with proper troweling tools and make sure excess concrete is removed on warning panels. **\*\*Do not use an edger around border of panels\*\***
9. When two or more panels are set together there should be less than a ¼ inch gap.
10. Check level of the pieces again and clean up the edges.
11. After concrete has dried, clean any left over concrete from pieces with water and scrub brush. This should be easy because panels are sealed.
12. Finish surrounding concrete according to normal practice.

### **Dry Setting or Retrofitting:**

1. Lay out DOT compliant location.
2. Cut out existing concrete at least ¼ inch oversize of panel.
3. Cut to a depth of no less than 2 inches.
4. Make sure all loose material, dust and dirt are cleaned from surface.
5. Wet down the back of the panel and (newly exposed substrate-SSD) cut out area with water.
6. Use polymerized grout for the bed. Be sure to put in an adequate amount of grout so that grout will fill gaps between panels and the edges of your cut-out.
7. Work panels into position, level with ramp in compliance with DOT.
8. Gaps must be full and water tight (a polyurethane sealant may be used here).
9. Make sure all grout is level with ramp and any excess is cleaned from panel and ramp.

### **Proper Snow Removal for Sidewalks**

We live in a climate where snow and snow removal is a common winter problem. It is recommended to use a broom attachment to sweep snow off of the panels. Any warning panel, no matter the manufacturer, is going to be damaged by blades and plows. This will eliminate damage to the panels as well as damage to the snow removal equipment.



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Below is an Iowa Department of Transportation Standard Road Plan with specs on detectable warning panel installation to ensure proper placement. **If you are not in Iowa, please consult your local DOT or municipal organization for proper specifications in your area.**

These complete specifications can be found at [www.iowadot.gov/erl/current/RS/Navigation/mi.htm](http://www.iowadot.gov/erl/current/RS/Navigation/mi.htm).

