

**DIRECTIONAL TACTILE WALKING SURFACE INDICATORS.**  
**(REV 10-27-22)**

The following new Section is added:

**SECTION 528**  
**DIRECTIONAL TACTILE WALKING SURFACE INDICATORS**

**528-1 Description.**

Furnish and install directional tactile walking surface indicators (directional indicators) on concrete or asphalt walking surfaces in accordance with the Plans, this Section and Developmental Standard Plan, Index 528-001.

**528-2 Materials.**

Directional indicators must consist of materials intended for exterior use subject to routine pedestrian traffic. Use directional indicators consisting of weather-resistant tiles, pavers or panels that are cast into concrete, or panels or mats that are surface applied to concrete or asphalt surfaces with adhesives and mechanical fasteners. Do not form directional indicators in wet concrete.

Directional indicators meeting the requirements of this Section are listed on the Department's Approved Product List (APL). Manufacturers may submit products for inclusion on the APL.

**528-2.1 Material Properties:** Directional indicators must meet the following requirements:

Property	Standard	Test Value
Slip Resistance	FM 3-C1028	Dry Coefficient of Friction – 0.8 min. Wet Coefficient of Friction – 0.65 min.
Wear Resistance	FM 5-594	Average Volume Loss: no more than 0.06 cm <sup>3</sup>
Water Absorption*	ASTM D570	Not to exceed 5%.
Adhesion/Bond Strength**	FM 5-589	150 psi min. tensile adhesion strength
Non-Hazardous Classification	Submit Material Safety Data Sheet (SDS)	Non-Hazardous, per RCRA Subtitle C
Dimensions	ISO 23599	Meet criteria in ISO 23599, section 4.1.3.2
* Applies only to plastic materials. ** Applies to surface-applied materials.		

**528-2.2 Color/Contrast:** Use safety yellow, brick red or black colored directional indicators on concrete walking surfaces. Use safety yellow colored directional indicators on asphalt walking surfaces. Acceptable materials must meet the following criteria for a duration of three years.

Color	Light Reflectance Values (LRV) CAP Y*
Safety Yellow	25 – 45
Brick Red	5 – 15
Black	0 – 5

\*When measured with a spectrophotometer

### 528-3 Installation Procedures.

**528-3.1 Surface Preparation and Installation:** Prepare the surface in accordance with the manufacturer's recommendations. Use only products and materials appropriate for the surface on which they will be applied. Install in accordance with the manufacturer's instructions, using materials and equipment recommended and approved by the manufacturer. For surface-applied panels or mats, use adhesives applied over the entire surface and mechanical fasteners.

**528-3.2 Cutting Directional Indicators:** Edges must maintain factory edges for all pedestrian approaches. Cutting of directional indicators allowed only on edges not approachable by pedestrians.

### 528-4 Method of Measurement.

The quantity to be paid for will be the plan quantity, in square feet, for directional indicators, completed and accepted.

### 528-5 Basis of Payment.

Price and payment will be full compensation for all work specified in this Section, including all materials, equipment, labor, surface preparation, and incidentals necessary to complete the work.

Payment will be made under:

919-528-

Directional Indicators – per square foot