



## Super TRPM High Visibility Chip Seal Markers

### Material Specifications

#### 1) Design

High visibility 6-inch wide flexible chip seal markers shall consist of an L-shaped marker a minimum of two (2) inches tall by one (1) inch deep, with (min.) 0.060 inch thick walls, comprised of a base and an upright vertical reflector with a protective rib running the length of the top of the marker. All markers shall be self-adhesive, flexible and durable, capable of sustaining numerous automobile wheel-over impacts at 60 MPH (100 km/h) without loss of adhesion and without sustaining damage to the marker body, vertical reflector or the reflective tape applied to the marker. All markers shall be constructed of UV-stabilized thermo-plastic polyurethane (TPU) for superior durability, conforming to the following material specifications:

Property	ASTM Test	Results
Specific Gravity (min.)	D 792	1.10
Hardness (min.)	D 2240	80 A
Tear Strength (min PSI)	D 624, Die C	600
Tensile Strength @ yield, (min PSI)	D 412	4,000
Tensile Elongation @ break (min. %)	D 412	600
Cold Temp. Impact Test (-7° F)	FL/DOT	Pass

#### 2) Protective Cover (s)

High visibility chip seal markers shall be provided with one (1) or two (2) clear covers to protect the vertical reflector from oil during the sealing process. For standard chip seal operations, a single cover shall be attached to the vertical reflector so as to protect the reflective tape during the oiling process but still be removed without difficulty to expose the reflector to traffic. For operations requiring a 2<sup>nd</sup> seal, markers shall be provided with two (2) covers. All covers shall be constructed of a clear, flexible polyvinyl chloride compound conforming to the following material specifications:

Property	ASTM Test	Results
Specific Gravity (min.)	D 792	1.27
Hardness (min.)	D 2240	80 A
Tensile Strength (min. psi)	D 412	1,900
Ultimate Elongation (min %)	D 412	380

3) Staples

The protective covers shall be secured to the marker body with one heavy duty high carbon steel staple for single cover markers, and three staples for double covers, two staples securing the inner cover and a single staple securing the outer cover.

4) Standard Color

The high visibility pavement marker body shall be constructed of 100 % polyurethane polymers and colors to ensure quality & performance. The color of the marker body and reflector shall be yellow or white per Federal Standard 595.

5) Reflective Performance

Reflective tape one (1) inch wide shall be affixed along the outer edge of the marker underneath the protective rib on both sides. The tape shall be an ASTM Type V cube-corner micro-prism material with the following minimum optical performance:

Reflector & Marker Color	Grade	CIL*
Yellow (typical)	Work Zone	2,760
White (typical)	Work Zone	4,100

\* Coefficient of Luminous Intensity shall be measured at 0.2° observation angle and -4.0° entrance angle, and expressed in MCD/LUX.

6) Pressure-sensitive Adhesive

All high visibility markers shall be self-adhesive, with a solid butyl rubber adhesive factory-applied to the entire length of the marker base. The butyl shall be a minimum of 0.125" thick and 0.75" wide on 1.0" wide release paper and of sufficient strength to secure the marker to the pavement and retain its position after vehicle impacts.

7) Lengths

All high visibility markers shall be supplied in 6-inch (150mm) lengths.

8) Packaging

Markers shall be packed in boxes such that the vertical reflector will not take a permanent set in excess of 15° from true vertical with respect to the base.

9) Quality

The high visibility markers shall be manufactured by an ISO 9001 certified firm in good standing; evidence of ISO compliance shall be presented as a pre-condition for acceptance for use.



10) Availability

Super TRPM high visibility chip seal markers are manufactured by and available from:

Pexco, LLC

3110 70<sup>th</sup> Ave East

Tacoma, WA 98424

USA

253-284-8000