

RAY-O-LITE®

2004 Abrasion Resistant Pavement Marker

Design & Shape The reflective pavement marker shall measure 2 inches (nominal) by 4 inches. The maximum height shall be .45 inches. The bottom of the marker shall be of a roughness comparable to a fine grade of sandpaper.

Materials The reflective lens and the housing shall be of optic grade Methyl Methacrylate. The fill material shall consist of inert thermosetting compound with filler designed for impact and wear resistance.

Optical Requirements

Definitions

Horizontal entrance angle shall mean the angle, in a plane parallel to the base of the marker, between a line in the direction of the incident light and a line perpendicular to the leading edge of the reflective surface.

Divergence angle shall mean the angle at the reflector between observer's line of sight and the direction of the light incident on the marker.

Specific intensity shall mean candlepower of the returned light at the chosen divergence and entrance angles for each footcandle light.

Optical Performance

For the pavement markers the specific intensity of the reflecting surface at 1/5 degree divergence angle shall not be less than the following when the incident light is parallel to the base of the marker.

Readings After Abrasion Testing

(Method ASTM 4280 Section 9.22)

<u>Hor.</u>	<u>Ent.</u>	<u>Angle</u>	<u>Crystal</u>	<u>C.P. Amber</u>	<u>Red</u>
		0 degree	3.0	1.8	.75
		20 degree	1.2	.72	.30

Red Lenses should not be abraded

Compression
Strength

1. Compression testing machine with a capacity of at least 5,000 lbs. and a rate capability of 0.2 inch per minute.
2. Solid metal plug 1" diameter and 1" high
3. Protective eye glasses or shield

Testing
Procedure

1. Place the base of the marker flat in the testing machine
2. Center the solid metal plug on top of the marker
3. At a rate of 0.2" per minute, apply the load necessary to break the marker. Use protective eyes glasses or shield to break the marker.
4. Record the strength by compressive loading in pounds

Minimum load specification should be 4,000 pounds. Failure of the marker shall also consist of significant deformation of the marker at a load less than 3,000 pounds or (2) significant delamination of the shell and the filler material regardless of the load required to break the marker.

Note: Significant deformation or delamination shall normally consist of more than 1/8 inch.