

# DIRECTOR TM 60 DURABLE PREFORMED PAVEMENT MARKINGS



## **PRODUCT DESCRIPTION**

DIRECTOR<sup>™</sup> 60 is a preformed polymer film designed to be used to mark asphaltic and Portland concrete road surfaces. Usually, it is supplied with an integral pressure-sensitive adhesive backing in a variety of roll widths and MUTCD precut legends and symbols. DIRECTOR<sup>™</sup> 60 is available in white or yellow (special colors upon request) and is available with no adhesive for use with contact cement.

## PRODUCT COMPOSITION

DIRECTOR<sup>™</sup> 60 retroreflective tape materials are a blend of polymeric compounds which are pigmented and include beads throughout the base matrix and a layer of glass beads bonded to the top surface. The material consists of the following ingredients by minimum weight: resin and plasticizers -25%, pigments 30%; glass beads - 33%. The urethane wear surface has a minimum thickness of 0.003". Pigments included are free of lead or other heavy metal compounds.

## PHYSICAL PROPERTIES

Tensile strength & elongation

DIRECTOR<sup>™</sup> 60 shall have a minimum tensile strength of 150 pounds per square inch cross-sectionion when tested according to ASTM D638-03. DIRECTOR<sup>™</sup> 60 shall have a minimum elongation of 75%. A sample 6" x 1" x .06" shall be tested at a temperature of 70° to 80°F, using a jaw speed of 10 to 12 inches per minute with a separation of 1.5 inches.

Color

White and Yellow colors shall conform to ASTM D-6628-03 Standard Specification for Color of Pavement Marking Materials.

Glass spheres

DIRECTOR<sup>m</sup> 60 matrices shall use colorless glass beads with a minimum refractive index of 1.50, when tested by the liquid oil immersion method. The glass beads in the top surface of the film shall have a minimum refractive index of 1.50 when tested by the liquid oil immersion method.



#### Reflectivity

These tapes have the following initial minimum retroreflectance values specified in the following table when measured in accordance with ASTM E 1710-05. The photometric quantity to be measured is the coefficient of retroreflected luminance (R1) and shall be expressed as millicandelas per square meter per lux (mcd/m2/lux).

#### Table 1 Reflective Values for Dry Samples (mcd m<sup>-2</sup>) lx-1 (mcd ft<sup>-2</sup> (fc)<sup>-1</sup>)

Entrance Angle	88.76°	88.76°
Observation Angle	1.05°	1.05°
R1 [(mcd/m2)/lux]	500	300

Retroreflectivity readings shall be measured with a LTL-2000 or LTL-X Reflectometer.

#### Bead retention

The reflective surface shall be made to resist bead removal resulting from traffic wear.

#### Skid resistance

The surface of the polymer film provides an initial average skid resistance value of 45 BPN when tested according to ASTM E 303.

#### Thickness

DIRECTOR<sup>™</sup> 60 highway marking films shall have a minimum thickness of 0.06" not including adhesive.

#### Applicability to pavement surfaces

DIRECTOR<sup>™</sup> 60 pavement marking films should be applied on newly paved asphalt and inlaid on final rolling of mat. When applied to existing asphalt or Portland cement concrete pavements, application must be in accordance with manufacturer's application instructions. The pavement marking film shall be capable of conforming to pavement contours through the action of traffic at normal pavement temperatures.

#### Patchability

The pavement marking tape shall be capable of patching worn areas of the same type of film in accordance with manufacturer's instructions.

#### Performance Life

The performance life of DIRECTOR<sup>™</sup> 60 polymer pavement marking films will vary according to traffic conditions, snow removal practices, pavement surfaces, and application techniques. Throughout its useful life, the material, when properly applied, according to DIRECTOR<sup>™</sup> 60 application instructions, shall not fade, shrink, curl, or lift to the extent its intended effectiveness is compromised due to weather or temperature. The quality of the adhesive shall prevent the material from releasing from the surface when properly applied.



All statements, technical information and recommendations contained herein are based on tests we believe to be reliable but the accuracy and completeness thereof is not guaranteed. Data is subject to alteration due to technical advances.

Above information not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for consideration, investigation and verification.

If you have any questions about proper application techniques or other technical support issues, please contact your SWARCO sales or customer service representative.

Form SI-088 Rev 2 Effective: 2/27/09