

Product Type: **Permaline Alkyd Extrude Thermoplastic**
Product Code: **884094 884028**
Product Color: White Lead Free Yellow
Description: TM WHT ALK PL EXTRD
TM LF YEL ALK PL EXTRD
Specification: Meets AASHTO M-249
Effective Date: August 15, 2013

Product Description:

Ennis-Flint's Permaline Alkyd Extrude Thermoplastic Pavement Marking Material is a 100% solids material blend of binder, pigments and glass beads that must be melted to a temperature of at least 425°F (218°C), mixed well and applied in a molten/liquid state to the pavement. Roadway surface temperature at the time of application should be 50°F (10°C) and rising. Upon cooling to normal pavement temperature, Permaline provides a very durable marking material for high volume traffic areas.

Product Advantages:

- Improved durability over standard thermoplastic
- Can be used on newer concrete without primer
- Demonstrates excellent bead retention and abrasion resistance
- Fast set up keeps traffic control to a minimum when striping
- Can be used for symbols, legends and lane marking

Packaging:

Thermoplastic is sold in one ton increments (2000 pounds). The ton is divided into 40 heat degradable bags each weighing approximately 50 pounds.

Storage:

The shelf life of the product is one year from date of manufacture with proper storage. Proper storage includes inside or covered to prevent from moisture, and below 120F. Outside storage for short intervals is acceptable as long as the material is kept dry. The older the material, more agitation and dwell time is required to fully melt and mix the granular ingredients.

Conditions for Application:

All surfaces must be clean, dry and free from oil, grease, antifreeze, loose sand, aggregate and chipping/peeling existing striping. Any curing compounds used on new concrete must be mechanically abraded off prior to striping and use of a primer is strongly suggested. Concrete should be allowed to cure 14 days. When in doubt, always test adhesion. While thermoplastic may be installed behind the paver once the mat cools, new asphalt should be allowed to cure for a minimum of 14 days to maximize adhesion and durability.

Coverage:

One ton yields approximately 6000 feet of 4" stripe @ 90 mils – surface texture will decrease the yield.

Physical Characteristics:

% Binder	23% minimum
% Glass:	30-40%
Intermix glass spec:	M-247 type I
% TiO2 in the white:	10% minimum
595B color, white:	17886
595B color, yellow:	13538
White Reflectance (Y value):	75 minimum
Yellow Reflectance (Y value):	45 minimum
Hardness, Shore A2 @115°F:	50 minimum
Softening Point:	200-230°F
Yellowness index, white:	0.12 maximum

Dry Time: With drop on glass beads applied, the Permaline thermoplastic material shall be sufficiently tack-free to carry traffic in not more than 2 minutes when pavement surface temperature is at 50°F, and not more than 10 minutes when pavement surface temperature is 130°F.

Limitations: Applying a test strip to determine if surface is dry enough if there has been rain in the last 24 hours.

- Do not apply if hot material shows moisture bubbles.
- Do not heat thermoplastic above 450°F.
- Do not apply when road and ambient temperatures are below 50°F.
- Do not apply when temperatures are near or below the dew point.
- Material at application is hot – please wear personal protective equipment as described in MSDS

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