



1100 HIGHWAY MEMBRANE

DESCRIPTION:

POLYGUARD 1100 pavement repair membrane with two layers of high strength polypropylene fabric used for backing and reinforcement. The membrane reduces the occurrence and severity of reflected cracks on new overlays. Additionally it waterproofs the underlying crack should a reflective crack occur in the new overlay.

POLYGUARD 1100 is manufactured by **Polyguard** Products, of Ennis, TX. **Polyguard** has produced corrosion coatings since 1952, and highway pavement membranes since 1971. Our company is the first producer of these materials to obtain registration to the ISO 9001 quality standard, which covers not only product manufacture, but also product development.

| TYPE OF TEST | PROPERTY | ASTM METHOD | TYPICAL MEASUREMENT | COMMENTS, INCLUDING RELATION TO PERFORMANCE |
|-------------------------|---|-------------|--|--|
| Dimensions | Thickness | D 1777 | .135 in. | Use ½" presser foot |
| Waterproofing | Absorption | D 517 | 2.0% | A measure of resistance to moisture exposure. |
| Temperature Sensitivity | Low Temperature Flexibility | D 146 | Pass of 0°F. | Critical in northern states. Low temperature flex should match expected winter lows if underlying pavement is subject to movement at cracks or joints. (See Note) |
| | Brittleness | D 517 | Pass at 39°F. to 43°F. | Not a very meaningful test using the temperature ranges which ASTM D 517 specifies. Brittleness at below zero temperatures would be more meaningful. |
| | Softening Point of Compound | D 2398 | 220°F. | A measure of resistance to membrane slippage at maximum summer heat under lateral forces. |
| | Heat Stability | NA | No dripping or delamination at 190°F. | Same as softening point. |
| Strength | Tensile Strength of Fabric Components | D 4632 | 200 lbs./in. width | For area coverage applications, both transverse and machine direction strengths are important. |
| | | | 1500 lbs./in ² | |
| | | | Measurements apply to both transverse (cross crack) and machine direction (longitudinal) strength. | |
| Stretchability | Elongation at Break of Compound | D 882 | 600% | This test relates to the ability of the compound to absorb stress before transferring it to the fabric reinforcement. |
| Weight | Weight of Membrane Per Ft. ² | D 1910 | .70 lb. | Weight is a reflection of filler content percentage. A high content of fillers such as clay or limestone (<i>which have specific gravity of 2.5 +/-</i>) relative to base asphalt and rubber polymers (<i>which have specific gravity of 1.0 or less</i>) will result in a heavier weight product. |

Polyguard 1100 is furnished Hot Applied or Self-Adhesive (SA) Types.

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This information is based on our best knowledge, but POLYGUARD cannot guarantee the results to be obtained.



Polyguard is ISO 9001 certified since 1996.

APPLICATION PROCEDURES:

For hot applied **1100**, see separate sheet entitled "**POLYGUARD 1100 HIGHWAY MEMBRANE** PRODUCT INFORMATION AND INSTALLATION INSTRUCTIONS."

For **1100 SA** follow the same time proven application procedures for **Polyguard 665 Highway Membranes** during installation.

Minimum ambient temperature limitation for **POLYGUARD 1100 SA** is 45°F and rising.

NOTE:

The ASTM D 146 test can easily be approximated in a home or break room freezer.

1. Place a 1: wide strip of the membrane being tested in the freezer compartment, along with a thermometer.
2. After 4 hours, remove the thermometer and note the temperature.
3. Bend the membrane strip (*while still in the freezer*) around a thick handle (*ASTM D 146 calls for 2" thickness*). If the membrane does not crack or break, it passes the test at that temperature.

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