

POLYGUARD		NW-75	665
PROPERTY	TEST METHOD	TYPICAL VALUE	TYPICAL VALUE
THICKNESS		.065	.065*
TENSILE STRENGTH	ASTM D 882 METHOD B	50 LB/IN WIDTH (769 PSI)	90 LB/IN WIDTH (1385 PSI)
PUNCTURE RESISTANCE	ASTM E 154	200 LBS	225 LBS
PERMEANCE-PERMS	ASTM E 96 METHOD B	.1	.1
PLIABILITY AT LOW TEMPERATURES (0°F, -15°F, -25°F)*	ASTM D146	NO CRACKS	NO CRACKS
ELONGATION	ASTM D 4632	80%	15%
GRAB TENSILE STRENGTH	ASTM D 4632	246	150

\*POLYGUARD is manufactured to the specifications of DOT's. Most material shipped meets a -15° specification. However, if an agency has specified a higher or lower pliability specification, the product will be produced with a formulation meeting those requirements.

## Key properties of POLYGUARD MEMBRANES are...

- High Strength
- Good Puncture Resistance
- Impermeability to Moisture
- Flexibility at Low Temperature

*These properties enable the material to act as a permanent seal, even under cracked pavement. The same properties also help to reduce the amount and severity of cracking in the overlying pavement.*

**EQUIPMENT REQUIRED:** No specialized equipment is required for unrolling and placing *POLYGUARD MEMBRANE*. For large jobs, some installers utilize a simple hand truck. Polyguard has available a limited number of these devices as a service to our customers. However, most users believe that the highly effective silicone treated release film on *POLYGUARD* is removed so easily, compared to release systems found on competitive products, that the use of hand trucks is unnecessary.

**SURFACE PREPARATION:** Pavement surfaces must be clean and dry prior to application. A smooth surface will improve adhesion. Surfaces must be free of voids, sharp projections and debris or aggregate. New concrete must be cured a minimum of 7 days, and surfaces must be free from form release agents, curing agents, and other contaminants. Form release must be the self-dissipating type. Curing compounds containing oil, wax, silicone, or pigments should not be used.

**LIQUID ADHESIVE:** Liquid adhesive should always be used to prime concrete bridge deck surfaces, or on milled pavement surfaces.

**On new asphalt surfaces,** liquid adhesive need not be used unless the temperature is too cool to obtain a good bond between membrane and pavement. The condition can occur between 40°F and 50°F.

**On old asphalt or concrete pavement,** liquid adhesive is not required if pavement temperature is over 70°F and rising. If temperature is under 70°F, liquid adhesive is recommended. Drying time of liquid adhesive can vary. Allow adhesive to cure thoroughly. Adhesive is ready for membrane application when it does not adhere to fingertips when touched lightly. A variety of liquid adhesives are available. *POLYGUARD 650 RC LIQUID ADHESIVE*, solvent based, can be used at temperatures over 40°F. Liquid adhesive coverage is approximately 400 ft<sup>2</sup>/gallon (250ft<sup>2</sup>/gallon on milled surface.)

**MILLED SURFACES:** if pavement surface is milled, liquid adhesive must be used, and care should be taken when rolling membrane to maximize adhesive surface contact.

**TEMPERATURE:** *POLYGUARD MEMBRANES* should be applied only when pavement and air temperatures are 40°F and rising, and weather is fair. In marginal conditions, a test area should be installed, and checked for adequate adhesion.

**INSPECTION AND REPAIR:** After application is complete, the membrane should be inspected for tears, punctures and air blisters prior to placement of asphalt overlay. Repairs should be made by removing all damaged membrane so that only bonded membrane remains. Reprime any exposed pavement. Apply a new sheet of membrane over the pavement and over the previously applied membrane at the edges of the damaged area.

**TRAFFIC OVER POLYGUARD PRIOR TO OVERLAY:** *POLYGUARD MEMBRANE*, properly installed and bonded to the pavement, may be opened to traffic prior to overlay for up to two weeks. The following precautions should be observed:

- During wet periods, traffic should be slowed, as the top surface of the membrane can be more slippery than pavement.
- Installation should be checked periodically to make sure that the membrane system continues to adhere. Marginal installation conditions, combined with heavy rain and traffic, have been known to cause delamination of the membrane.
- Membrane should not be left exposed to ultra-violet rays for over 30 days without a protective cover or coating.

***POLYGUARD MEMBRANES* are equally effective on both bridges and pavement surfaces...however, there are different installation procedures for each.**

**INSTALLATION: Joint and Crack Repair...** If liquid adhesive is required, adhesive should be applied 1" wider than the membrane. The membrane should be centered over the joint or crack within a 2" tolerance. Transverse joints and cracks should be sealed first, starting at the outside edge of the pavement and extending the full length of the joint.

The outside edge of the joint should be sealed after transverse joints. All laps should be made in such a manner that the paver does not encounter the exposed edge of the lap first.

Transverse membranes should be extended 4" to 6" beyond each pavement edge. Cracks that connect with a transverse joint should be sealed with a minimum of 2-1/2" lap at the intersection with the joint. End laps in both the transverse and longitudinal membrane should have a minimum overlap of 3".