

## T-28 MMA HIGH FRICTION SURFACE TREATMENT

**Transpo T-28 is a Methyl Methacrylate (MMA) based resin system used for high friction surface treatments on asphalt or concrete pavements.**

T-28 is capable of a rapid cure in a wide range of temperatures and, when combined with high friction aggregates, will enhance pavement skid resistance on hazardous curves and other high incident accident areas.

### APPLICATION

#### Surface Preparation

All surfaces that are to receive T-28 must be thoroughly clean, dry, and free of all dirt, grease, and other contaminants that might interfere with proper adhesion. Clean the pavement surface using sand-blasting, shot-blasting or water-blasting. All damaged or deteriorated surfaces must be repaired before applying T-28. Asphalt surfaces are to be visibly dry. Concrete surfaces shall be visibly dry and the moisture content cannot exceed 6%, confirmed with a non-destructive concrete moisture meter. New asphalt and concrete shall have been placed for a minimum of 28 days prior to installation of T-28. The ambient temperature should be between 4°C and 38°C / 40°F and 100°F. Relative humidity should be 75% RH maximum. At the onset of rain, installation shall cease until the substrate is sufficiently dry to the satisfaction of the engineer. For colder or warmer application temperatures contact a Transpo representative for adjusted mix ratios.

#### Priming

Priming on concrete is done with T-28 MMA primer. For other substrates, contract a Transpo representative. Before mixing, mask the area to be coated. Mix the T-28 primer and catalyst (refer to Table 1 for appropriate catalyst quantities) for approximately 30 seconds and apply it to the concrete. Primer is applied using 1/4 inch nap rollers at a rate of approximately 80 ft<sup>2</sup>/gal however, consumption on rough or porous surfaces will be more. After the primer is applied and before it cures, remove all masking.

*Table 1: Mixing Instructions for T-28 Primer*

Temperature	No. of 30 g Bags of BPO per Gal of T-28 Primer	% Catalyst by Weight of Resin
-10°C – 2°C / 14°F – 35°F	6	6
2°C – 13°C / 36°F – 55°F	5	5
13°C – 24°C / 56°F – 75°F	4	4
24°C – 38°C / 76°F – 100°F	3	2

#### Mixing

T-28 consists of a resin and powder hardener. Thorough and complete mixing of these components with a drill mounted paddle mixer is vital for uniform curing and performance. Substrate temperature determines the amount of hardener used; refer to Table 2 for the appropriate amount of hardener to be added to the T-28 resin. Using clean, dry plastic buckets, add hardener to T-28 resin and mix until dissolved (approximately 30 seconds). After mixing the resin should be applied to the pavement immediately.

*Table 2: Hardener per two gal of T-28 Resin*

Temperature	Weight %	No. of 120 g Bags of BPO per 2 Gal of T-28 Resin
4°C – 15°C / 40°F – 59°F	3	3
15°C – 32°C / 60°F – 89°F	2	2
32°C – 38°C / 90°F – 100°F	1	1



### Resin Application

After thorough mixing of the resin and hardener, pour the resin onto the pavement surface and spread evenly with a 1/4 inch notched squeegee. Coverage rate should be approximately 32 ft<sup>2</sup>/gal. It is important that there should be enough resin on the pavement surface to allow the broadcast aggregate to imbed a minimum of 50% to assure proper aggregate bond. Porous pavement surfaces may require the application of additional resin to assure sufficient broadcast aggregate bond.

### Aggregate Broadcast

Immediately after resin application, aggregate should be applied at approximately 1.5 lb/ft<sup>2</sup> or until refusal. Calcined bauxite or other aggregates that exhibit high friction and low polish values should be used for broadcasting. Aggregate broadcasting can be accomplished either by hand or using numerous spreading machines. After cure, the excess aggregate should be swept off the surface and can be reused if not contaminated.

### STORAGE

Materials shall be kept in dry protected areas between 4°C and 27°C / 40°F and 80°F out of direct sunlight, protected from open flame. Hardener component shall be stored separately from other materials. Manufacturer’s specific label instructions and prudent safety practices for storage and handling shall be followed at all times. Materials shall be suitable for use for six months after the date of receipt when stored in accordance with the manufacturer’s instructions.

### CAUTION

The binder shall be 100% reactive, solvent-free, acrylic vehicle. Blends with other resins or liquid vehicles shall not be permitted. Coarse aggregate shall be part of the formulation to provide for skid resistance.

### PROPERTIES\*

Property	Unit of Measure	Test
<b>Neat Resin</b>		
Viscosity	>1,500 cps	ASTM D2393
Elongation	>70%	ASTM D638 Type I
Tensile Strength	>500 psi	ASTM D638 Type I
Compressive Strength	>2,000 psi	ASTM 579 Method B
Shore D Hardness	55 – 60	ASTM D2240
Water Absorption	<0.25%	ASTM D570
Pot Life @ 22°C / 72°F	15 minutes	AASHTO T237
Solids Content	99%	ASTM D1644
<b>Aggregate</b>		
Specific Gravity	2.65	ASTM C128
Hardness	7.0	Mohs Scale

\*The value ranges stated above are based on system processing under laboratory conditions. Equipment configurations and/or field application conditions may produce variances in final system values.

**WARRANTY:** The following warranty is made in lieu of all other warranties, either expressed or implied. This product is manufactured of selected raw materials by skilled technicians. Neither seller nor manufacturer has any knowledge or control concerning the purchaser’s use of either product and no warranty is made as to the results of any use. The only obligation of either seller or manufacturer shall be to replace any quantity of this product that proves to be defective. Neither seller nor manufacturer assumes any liability for injury, loss, or damage resulting from use of this product.