

# Technical Data Sheet

## MMA Polymer Crack Sealer T-78

T-78 MMA Crack Sealer is a very low viscosity, low surface tension, rapid curing methacrylate reactive resin system that is highly effective for sealing and filling cracks and pores in concrete structures.

### Application Procedure

**Surface Preparation:** Concrete surfaces that are to receive T-78 should be thoroughly clean and sound. Remove all surface dirt, grease, paint, rust, and other contaminants by sand blasting or shot blasting. Applications on LMC overlays do not require blasting or mechanical abrasion, the surface can be high pressure washed to remove contamination. Before application of T-78 the surface must be dry for 24 hours and just prior to application cracks should be cleaned with dry high pressure compressed air. The concrete surface should be visibly dry and the moisture content in the concrete should be tested according to ASTM D4263. The ambient temperature of the deck should be between 40°F – 100°F (4°C-40°C). For colder temperatures contact a Transpro representative.

**Mixing:** T-78 must be mixed with the appropriate amount of powder hardener just prior to application. Air/substrate temperature determines the amount of powder hardener used. Table 1 lists the appropriate amount of powder hardener to be added to one gallon of T-78 resin. Using clean, dry plastic buckets and scoops; add powder hardener to T-78 and mix until dissolved (approximately one minute). A drill-mounted paddle mixer should be used for larger batches. Mixed T-78 must be used immediately.

**Table 1: Mixing Instructions for Powder Hardener per one gallon of T-78**

Temp °F (°C)	Packets (30-grams each)	Weight %
40	5	5
50	4	4
60	3	3
70	2	2
90	1	1

**Application:** T-78 is applied in a gravity-fed process. The rate of application of T-78 resin should be approximately 100-150 ft<sup>2</sup>/gal. However, this will vary depending on the surface porosity, size, and quantity of cracks present in the area being treated.

During application, the concrete surface should be flooded with the resin, allowing sufficient time for penetration into the surface and complete filling of all cracks. Excess material should be redistributed using squeegees or brooms within five minutes after application. The quantity of T-78 resin mixed at one time should be limited to five gallons.

**Broadcasting of Aggregate:** Broadcast sand should be applied to the entire treated area prior to cure, typically at 1-2 lb/yd<sup>2</sup>. The sand used should be 12x16 mesh, #1 or #2 blasting sand, and should have a maximum moisture content no greater than 0.5%. It should be placed within minutes of the resin application and before any setting of the resin occurs. Traffic can be restored once the concrete surface is cured tack-free. Note: if line striping is to be applied after the application of T-78 the cured material on the concrete surface may need to be removed before application of the striping material.

**Table 2: Pot life and Cure Times\* for T-78 depending on temperature**

<b>Temperature °F</b>	<b>Cure Time* (min) T-78</b>	<b>Pot life (min) T-78</b>
40	35 – 40 (with 10 % Additive CW)	10 – 15
50	30 – 35 (with 10% Additive CW)	7 – 9
60	45 – 50	15 – 20
70	45 – 50	15 – 20
90	30 – 35	5 – 10

\*Cure times are approximate and will vary with ambient and deck temperature, humidity, and sunlight.

**Table 3: Properties of T-78\***

<b>Property</b>	<b>Unit of Measure</b>	<b>Test</b>
Appearance	Bluish Liquid	
Viscosity	<5-10 cps (mPa-sec)	Brookfield
Density	8.08lb/gal (0.95kg/L)	ASTM D2849
Pot Life @ 70°F	15 – 20 min	AASHTO T237
Tack Free Time @ 70°F (21°C)	30 – 40 min	AASHTO T237
Solids Content	100%	ASTM D1644
Tensile Strength	8,100 psi (56.4 MPa)	ASTM D638 Type I
Tensile Elongation	5%	ASTM D638 Type I
Slant Shear Strength (14 days)	2,200 psi (15.2 MPa)	ASTM C881

\*To be used as general guidelines only

### **Packaging**

T-78 comes in five and fifty gallon containers. The powder hardener is provided in separate labeled containers or in pre-measured quantities.

### **Storage**

T-78 should be stored in tightly sealed containers in a cool, dry location, out of direct sunlight. Maximum storage temperature is 68°F. Store materials in original containers.

### **Caution**

T-78 is a flammable liquid in the uncured state. Read and understand product labels and SDS prior to use. T-78 may produce minor skin irritations to persons prone to such reactions. It is recommended that all persons involved in mixing and application wear protective clothing such as goggles, rubber boots, rubber gloves.

### **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 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.

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20 Jones Street, New Rochelle, NY 10801

Tel: 914-636-1000  
Web: <http://www.transpo.com>

Fax: 914-636-1282  
E-mail: [info@transpo.com](mailto:info@transpo.com)