

# TECHGRIP™ E1

## ELASTOMERIC SUBSTRATE PRIMER

### DESCRIPTION

TECHGRIP E1 is an adhesive primer used to bond new TECHTHANE® elastomers to cured TECHTHANE elastomers, other urethane elastomers, and certain rubber materials. E1 provides a bond that in most cases exceeds the high strength of the TECHTHANE elastomer. In service, E1 bonds are resistant to fresh and salt water, many chemicals, and other environmental conditions. E1 may be applied by spraying, brushing, or dipping.

### SUMMARY INFORMATION (SEE FOLLOWING SECTIONS FOR FURTHER INFORMATION)

#### PROPERTY

Coverage	100-400 ft. <sup>2</sup> /gal. (2.50--10.00 m <sup>2</sup> /L)
Thickness per coat	2-3 mils (0.050-0.075 mm)
Typical coats	1
Maximum coats	2
Mix Ratio (A:B)	1:1 by volume
Pot Life	4 hrs. @ 75°F (24°C)
Techthane Application Window	45 min.--24 hrs. @ 75°F (24°C)
Equipment Required	brush, roller, or spray

### PROPERTIES OF LIQUID PRIMER

PROPERTY	PART 'A'	PART 'B'	MIXED (A+B)
Volume Solids, %	50	10	30
Viscosity, cps/mPs @ 75°F (24°C)	8,000	3,300	N/A
Flash Point, TCC, °F (°C)	16 (-9)	16 (-9)	16 (-9)
Color	Clear-Amber	Clear-Amber	Clear-Amber
VOC, lbs./gal. (g/L)	3.70 (443)	6.55 (785)	5.13 (615)

### COVERAGE

The coverage rate of TECHGRIP E1 varies by substrate, with rough substrates averaging 100-200 ft.<sup>2</sup>/gal. (2.50-5.00 m<sup>2</sup>/L) and smooth substrates 300-400 ft.<sup>2</sup>/gal. (7.50-10.00 m<sup>2</sup>/L).

### APPLICATION INFORMATION

#### Equipment

**BRUSH/ROLLER:** Brushes or rollers must be solvent-resistant, short napped, and able to evenly apply approximately 2-3 mils (0.04-0.06 mm) of primer.

**SPRAY:** Equipment should have a minimum air:fluid pressure ratio of 15:1, and at 1,500 psi (10.00 MPa) or less offer a good spray pattern with 0.013"-0.020" (0.33-0.50 mm) spray tips. Equipment should have teflon packings, teflon or nylon hoses, and a 100 mesh (0.15 mm) outlet filter. A tip filter may be required for small tips. Spray equipment must be conductive and grounded to an earth ground when spraying.

Equipment **MUST** be clean to spray primer. Contaminants such as oil or grease will interfere with the primer bond.

## Surface Preparation

TECHGRIP E1 must only be applied to clean, properly prepared elastomer surfaces. Surfaces that are contaminated with oils, grease, or other such contaminants must be washed with solvent or detergents and fully dried before preparing.

- 1) Detergent wash, steam clean, or waterjet old or dirty surfaces to remove all contaminants such as dirt, oil, grease, etc. Allow to fully dry, taking extra caution as elastomers can be porous and hold liquids.
- 2) Roughen the elastomer surface with coarse grit sand paper or a stiff wire brush, until a suede-like finish is achieved. (Do not power-sand at high speed as this will overheat and gum the surface.)
- 3) Wipe the surface with perfectly-clean MEK, MPK, or MAK on a clean cloth. Repeat until there is no residue left on the cloth. Allow to fully dry.

## Mixing Components

To activate TECHGRIP E1, mix the Part 'A' and 'B' components together in a 1:1 ratio by volume. Ensure a good mix by measuring carefully and mixing longer than appears necessary.

After mixing, TECHGRIP E1 has a pot life of approximately 4 hours at 75°F (24°C).

## Application

Brush, roll, or spray into the prepared surface to a thickness of 2-3 mils. Do not let puddle. If using a brush or roller, work into the surface.

Let the E1 primer dry to a tacky film prior to applying the new TECHTHANE elastomer.

## Drying Time

TECHGRIP E1 dries to a tacky film in approximately 20-40 minutes after application.

## TECHTHANE Application Window

TECHTHANE can be applied over the E1 between the time it becomes firm and tacky and 4 hrs. @ 75°F (24°C). If 4 hours are exceeded, re-buff the surface and re-apply E1.

## AVAILABILITY

2 quart (1.80L) , 2 gallon (7.60L), and 10 gallon (37.80L) sizes.

## SHELF LIFE / STORAGE

In the absence of heat and moisture, TECHGRIP E1 is good for 3 months.

Store containers tightly sealed in a cool, dry area that is protected from direct sunlight. Storage temperature should not exceed 80°F (27°C). Containers that have been opened should be resealed immediately, and if the primer is not to be used within 24 hours, the container must be purged with dry nitrogen to prevent moisture contamination.

## SAFETY

TECHGRIP E1 components are flammable and should be well protected from sparks and open flames.

TECHGRIP E1, in its uncured form, contains solvents and a small amount of free isocyanate, which can cause severe irritation to the eyes, skin, respiratory system, and mucous membranes. Contact by inhalation, skin, eye, or ingestion must be avoided. All guidelines for handling isocyanate-containing materials must be followed when using TECHGRIP E1. To avoid inhalation, forced air ventilation must be used for all indoor applications. When working in tanks, spray booths, or other confined areas, fresh air breathing equipment should be worn. Chemical cartridge masks suitable for organic vapors may be used under some conditions with adequate ventilation. To avoid skin contact, protective clothing must be worn at all times.

*Refer to the Material Safety Data Sheet (MSDS) for further information prior to use of this material. MSDS available 24 hrs. at [www.urethane.com/msds](http://www.urethane.com/msds).*

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