

TECHTHANE[®] FIELD REPAIR KIT

DESCRIPTION

The TECHTHANE Field Repair Kit is a boxed kit containing most items needed to perform a repair to a urethane surface, including surface preparation materials, primers, and a high grade, ambient-cure elastomer that can be applied in liquid or paste form. It is easily prepared on-site and forms a strong, long-lasting repair.

CONTENTS OF KIT

ITEM	QUANTITY
TECHTHANE T90 Trowelable Elastomer	1.65 lbs. (0.75 kg)
THICKENING AGENT for T90	1.00 quart (0.96 L)
TECHGRIP E1 primer for elastomers	0.50 pint (0.24 L)
TECHGRIP M3 primer for metals	0.25 pint (0.12 L)
Mixing Cups	2
Disposable Gloves	5 pair
Mixing Sticks	5
Sandpaper, 40 grit	1 sheet

PROPERTIES OF CURED REPAIR MATERIAL

PROPERTY	VALUE
Hardness, Shore A (ASTM D2240)	90
Tensile Strength (ASTM D412)	3,500 psi (24.15 MPa)
Elongation (ASTM D412)	350 %
100% Modulus (ASTM D412)	1,100 psi (7.60 MPa)
Tear Strength, Die-C (ASTM D624)	350 pli (63.00 kN/m)
Tear Strength, Split (ASTM D470)	55 pli (9.60 kN/m)
Color	See 'Availability'

PROPERTIES OF LIQUID COMPONENTS

PROPERTY	T90 'A'	T90 'B'	E1 'A'	E1 'B'	M3
Volume Solids, %	100	100	50	10	11
Viscosity Brookfield, cps/mPs @ 75°F (24°C)	50,000	300	1,600	250	1,200
Flash Point, TCC, °F (°C)	>250 (120)	>250 (120)	16 (-9)	16 (-9)	40 (4)

APPLICATION SUMMARY (See opposite page for further application information)

PROPERTY	
Elastomer Coverage	150 in. ² @ 1/4" (0.10 m ² @ 6.00 mm)
E1 Primer Coverage	12 ft. ² (1.10 m ²)
M3 Primer Coverage	8 ft. ² (0.75 m ²)
Elastomer Pot Life	15-20 minutes @ 75°F (24°C)
E1 Primer Pot Life	4 hours @ 75°F (24°C)
Repair Cure Time	2-6 days + @ 75°F (24°C)
Tools Required	paint brush, troweling device

APPLICATION INSTRUCTIONS

Do not open or mix any components until ready to use. Observe all proper safety precautions.

- 1) Cut away all loose or damaged elastomer from the affected area.
- 2) Thoroughly clean all elastomer and exposed metal surfaces to be repaired with a detergent wash or perfectly-clean MEK, acetone, or alcohol using a clean, soft, cotton cloth. Let thoroughly dry.
- 3) Roughen the surface to be repaired to a suede-like finish, using a coarse-grit sanding disc or paper (do not power-sand at high speed as this will overheat and gum the urethane). Roughen any exposed metal surfaces by grit blasting or coarse sanding. Sweep, vacuum, or blow clean all loose dust and grit.
- 4) Wipe the surface using perfectly-clean MEK on a clean, cotton cloth. Repeat with fresh solvent and cloth until no residue is visible on the cloth after cleaning. Let thoroughly dry.
- 5) Apply a thin coat of TECHGRIP M3 primer to prepared metal surfaces only. Avoid contact of M3 with elastomer surfaces.
- 6) Thoroughly mix the TECHGRIP E1 primer 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.
- 7) After mixing the E1, work a thin coat into the suede-like, roughened surface, covering all areas to be coated and beyond. Do not let puddle. Overlapping E1 onto M3 is acceptable.
- 8) When it has been at least 45 minutes after the M3 primer was applied and the E1-primed surface has become tacky (usually 15-20 minutes), mix the entire TECHTHANE T90 Part 'A' and Part 'B' components together until a smooth, consistent color is achieved. Scrape the sides and bottom of the container with a straight-edge to remove any unmixed material from the sides and blend for 2-3 minutes more (total time to mix should be approximately 5 minutes). The pot life after mixing is 15-20 minutes, so only mix shortly prior to application.
- 9) Apply the mixed TECHTHANE T90 elastomer to the prepared repair area with a brush, trowel, or putty knife, or pour in if liquid (unthickened T90 elastomer is generally applied best with a brush, and thickened T90 elastomer is generally applied best with a trowel or putty knife). Apply in a smooth, even manner, working into pours and crevices. Finish flush with the existing surface.

Protect repair from damage until cured.

Recommendations:

- For flushing small repairs to the existing surface or preventing sag on vertical surfaces, cover repair with plastic tape and remove after curing sufficiently.
- For a glossy surface, wipe the elastomer surface lightly with solvent and a rubber glove-covered finger

- To remove air bubbles in the surface, *quickly and lightly* sweep a hair dryer or hot air gun above the surface.

CURE TIME

The time required for TECHTHANE Field Repair Kit repairs to cure is dependent upon ambient and substrate temperature:

CURE LEVEL	50°F/10°C	75°F/24°C	100°F/38°C
soft elastomer, minimal bond	8 hrs.	4 hrs.	2 hrs.
hard elastomer, moderate bond	6 days	2 days	1 day
hard elastomer, strong bond	12 days	6 days	3 days

Repairs should be allowed to cure sufficiently prior to use in the intended service. Repairs will continue to strengthen after aging several weeks.

STORAGE AND SHELF LIFE

In the absence of heat and moisture, TECHTHANE Field Repair Kits are good for 6 months. Containers should be kept tightly sealed and stored in a cool, dry area that is protected from direct sunlight. Containers that have been opened should be resealed immediately, and if the kit is not to be used within 24 hours, the TECHTHANE T90 elastomer Part 'A' container must be purged with dry nitrogen prior to sealing to prevent moisture contamination.

NOTE: TECHTHANE components may solidify below 65°F (18°C). To liquify, re-heat to a maximum of 120°F (48°C) and mix prior to use.

SAFETY

Individual components of the TECHTHANE Field Repair Kit contain solvents, isocyanates, aromatic diamines, and other materials which are hazardous if improperly used. Use in a well-ventilated area. All direct personal contact must be avoided. Protective clothing must be worn at all times, and forced air ventilation must be used for all indoor applications. When working in tanks and other confined areas, or anywhere the TLV is exceeded, fresh air breathing equipment must be worn (chemical cartridge masks suitable for organic vapors approved by MSHA/OSHA may be used under some conditions with adequate ventilation). If skin contact occurs, wash thoroughly with soap and water. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. If swallowed, do not induce vomiting, call a physician immediately.

Review each component's Material Safety Data Sheet (MSDS) for further information prior to use of this kit.

FOR INDUSTRIAL USE ONLY

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