



Crosslink Technology Inc.

Formulated Epoxies, Urethanes · Custom Cast Parts

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TECHNICAL BULLETIN:

Trowelable Urethane Repair Kit

CLC TU-680-A/B

(HARDNESS: 80 Shore A, Black)

(Quart Dump Kits or Convenient Cartridge Dispense)

TU-680 is a two component trowelable, room temperature curing, polyurethane repair compound. The mixed material may be applied immediately to variety of surfaces in thickness from 40 mils to 1600 mils (1 mm to 40mm). The thixotropic properties allow thick coatings to be applied to vertical surfaces or the underside of horizontal surfaces without slumping or falling off. The mixture can be worked with ease using trowels or other suitable tools.

TU-680 has excellent resistance to wet or dry abrasion and to impinging particles. It has excellent resistance to wet environments and moderate concentrations to mineral acids and alkalis. TU-680 is used for repair and rehabilitation work on worn equipment and providing wear resistant coatings on new equipment. It can be used in places of restricted accessibility. TU-680 is intended to be used at ambient temperatures. It has a working life of 7-10 minutes at ambient temperature.

MIXING (for “dump kits only”):

This procedure is to ensure reproducibility when utilizing Crosslink’s “Quart Dump kits”. Open both cans and pour the contents of the can labeled TU 680-B into the can labeled TU 680-A. Pour the whole content within 60 and 90 seconds. Using a suitable spatula, draw as much of the remaining material from the can labeled TU 680-B as reasonably possible into the can labeled TU 680-A. Mix the 2 materials together thoroughly using a metal spatula until a uniform blend is created. Apply the material as necessary.

APPLICATION:

The mixed material is applied by methods related to cement finishing and similar tools are recommended. Steel floats, spatulas, paint scrapers, pointed trowels, Polyethylene templates and screeds are typical of the equipment required according to the type of work undertaken. Curved surfaces, both convex and concave may be coated by cutting appropriately shaped templates. In this way worn components, metal, polyurethane or rubber, may be repaired and their original profile restored.

SURFACE PREPARATION:

All surfaces to be lined should be clean and completely dry. Steel, Stainless steel aluminum, brick, dry-wood, concrete, fiberglass, epoxy, urethane and rubber are all acceptable surfaces. Metal surface should be grit-blasted per SSPC-SP 5 “white Metal Blast Cleaning”. Concrete should be grit-blasted whenever possible, if not, it can be acid etched or water blasted and dried.



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All urethane and rubber surfaces should be roughened, and then scrubbed with an abrasive pad wetted with an organic solvent based surface cleaner. All surface debris should be removed with compressed air or wipe down with paper towels before applying TU-680.

CURING:

TU-680 when mixed will be ready to trowel. Once mixed, it will remain tacky for about 12 to 15 minutes depending on the application temperature. It will set to an elastic solid after 20 to 25 minutes. The surface tack will disappear and it will start gaining strength after 30 minutes. The material will cure in 24 hours and may be put into service. However, a full 3 days are needed for it to reach optimum physical properties. If the cure time has to be shortened, the use of hot air blowers or heated enclosures at temperatures from 140°F to 210°F (60°C-100 °C) may be used. The full cure may be reduced to 3 hours if 195°F (90°C) can be obtained.

TYPICAL PROPERTIES:

| | |
|--|--------|
| Gel Time (Minutes): | 5 |
| Tack Free (Minutes): | 30 |
| Hardness (Shore A): | 80(±2) |
| UTS Tensile (psi): | 2864 |
| Elongation (%) | 349 |
| Die 'C' Tear (pli) | 240 |
| Shrinkage @ 72°F (22°C) (%): | 0.01% |
| Shrinkage @ 195 °F (90 °C) (%): | 1.8% |

PACKAGING:

TU-680-A/B (Trowelable urethane) is packaged in 2 x 1 quart cans. Other dimensions may be available.

SAFETY IN HANDLING:

TU-680-A/B is MDI based polyurethane system. The Isocyanates fumes are Non-detect level. It does not contain solvents and hence it is non-flammable. However, if the solvents are used in surface preparation procedures and clean up, review Material Safety Data Sheets and safety procedures for handling solvents prior to applying product. Rubber gloves should be used while applying this product.

CLEAN UP:

Uncured TU-680-A/B urethane material may be removed from tools by washing with MEK or any organic solvents.



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SHELF LIFE:

As the TU-680-A/B is packaged in quart cans and is protected, with a “blanket” of dry nitrogen, from the moisture and the environment which can affect its stability. Once the can is opened it should be used. If the can is opened and unused the can must be “blanketed” with dry nitrogen again and closed tightly until it is subjected to use. The materials will with-stand transport through hot climates at 118°F (45°C). If the cans are exposed to below freezing temperatures during transportation it is highly recommended to bring the cans to ambient temperatures before using. The shelf life of TU-680-A/B stored under moderate and steady temperatures, will be 6 months.

Non-warranty: Because we cannot anticipate the conditions under which this information or our products may be used, we can accept no liability for the results obtained. The information in this bulletin should not be construed as an expressed or implied warranty of merchantability or fitness for particular purpose. We suggest that potential users conduct their own tests to determine the suitability of this product for a particular purpose.

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