



# Urepaair

## UR-45T HIGH BUILD MULTI-PURPOSE

**UR-45T** is a 45 shore A trowelable, flexible, fast-curing polyurethane putty designed for lasting surface protection and to repair existing substrates against wear, abrasion, and corrosion. Packaged for easy on ratio mixing using our dual cartridge dispensing system. Used with primer, this material will adhere well to soft rubber components while offering sound deadening, scratch, and non marking protection.



### APPLICATION AREAS:

- Discharge and Dredge hose • Conveyor belts and flights
- Conveyor clip joint protection • Marine fenders • Pulley lagging
- Rubber linings/sheeting Pipes • Fluid handling equipment
- Expansion joints • Gasket seals

### TECHNICAL DATA:

**Prepolymer:** PPT low free Polyether

**Hardness Shore A:** 45+/-5

**Solids:** 100%

**VOC's:** Zero

**Mix ratio volume:** 2A:1B

**Mix ratio weight:** 100A:47B

**Colour:** Black, others available

**Shelf Life:** 2 years unopened

**Storage:** 23°C (73°F) dry, away from sunlight

**Tensile strength ASTM D412:** 2.77 MPa (402 psi)

**Elongation ASTM D412:** 651%

**Tear Strength ASTM D624 Die C:** 22.07 kN/m (126 lb-in)

**Taber Abrasion 1kg, 1000cy, CS-17 ASTM D4060-19:** 0.6 g loss

**Operating Temperatures:** -56°C (-70°F) to 93°C (200°F)

**Theoretical Coverage:** 34 sqm @ 25 micron/kg (166 sqft/lb @ .001")

**Mix density:** 1.050 g/cm<sup>3</sup> (.038lb/Cl)

**Transportation:** DGR

### APPLICATION DATA (23°C / 73°F):

**Precondition material:** 20C (68F)

**Recoat:** < 1 hour

**Pot Life:** 20 minutes

**Buff Repair:** 12 hours

**Light Duty Service:** 24 hours

**Ultimate Cure:** 5 days

### APPLICATION CONDITIONS:

During colder temperatures part A resin may become solid and or present a waxy appearance. Before using, slowly warm materials back to a liquid state. Substrates must be dry and free from contaminants with temperatures 3°C (5°F) above the dew point with relative humidity less than 85% while protecting from direct sunlight. Ambient temperatures between 7°C to 45°C (45°F to 113°F) are best. It is possible to use at lower temperatures when dewpoint and humidity levels are safe, but expect cure times to lengthen.

## **SURFACE PREPARATION:**

### **GENERAL**

All substrates must be clean and dry with no oil, grease, or loose debris. NORMAC Polyurethane products use primers to successfully adhere to both porous and non-porous substrates. Individual adhesion tests should be performed to confirm adequate adhesion strength prior to use.

### **METAL**

Metal substrates must be dry, clean, and sound. Remove all dirt, dust, grease, oils, detritus, and all other contaminants. Radius all sharp edges to minimum 3mm (.120"), grind uneven seam lines, and remove weld splatter. Previously used metal should be checked for contamination that may require additional cleaning. Abrasive grit-blasting to SSPC-SP10 near white including a minimum depth profile of 2 microns (.002") is recommended for maximum adhesion strength. Other forms of mechanical roughening to clean and profile are possible such as grinding but expect lower adhesion strength. All metals require NP-9500 to achieve maximum adhesion strength. NP-9600 is used in conjunction with NP-9500 for immersion service only. Specialty and some hardened metals will require adhesion testing to ensure acceptable results.

### **ELASTOMERS**

Elastomer substrates include cured Rubber, Polyurethane, Polyurea, and PVC belting. Surface must be dry, clean, and sound. Remove all dirt, dust, grease, oils, detritus, and contaminants by solvent clean and choose the appropriate method for mechanical roughening to achieve desired adhesion strength. De-glossing using abrasive blast cleaning and or power tool cleaning, to achieve a minimum depth profile of 25 micron (.001"). Grinding or sanding using slow speed rotation (under 2000 rpm) by heavy wire wheel, or 24 to 50 grit aluminum oxide disks can achieve results. Elastomers require either NP-8400 or NP-9500 primer to ensure maximum adhesion strength.

### **CONCRETE**

Concrete surfaces are plane, and must be clean, sound, and dry. For best results, uneven profiled and blow-holed surface imperfections should be repaired and allowed to cure to a smooth level surface prior to mechanical roughening. Grit-blasting and grinding are best to achieve a minimum depth profile of 50 microns (.002"). Remove any dust, laitance, grease, oil, dirt, detritus, and all other contaminants from the concrete. New concrete must be cured for a minimum of 28 days with less than 15% moisture content. The compressive strength of the concrete substrate should be at least 20 MPa (3000 psi) at the time of application. Concrete requires NP-100 primer to ensure adequate adhesion strength and to stop outgassing. NP-100 can be mixed with aggregate to make high strength repair mortars.

### **OTHER SUBSTRATES**

These substrates include Carbon Fiber, Fiberglass, and Wood. Surface must be dry, clean, and sound. Remove all dirt, dust, grease, oils, detritus, and contaminants by solvent clean and choose the appropriate method for mechanical roughening for desired adhesion strength. De-glossing using abrasive blast cleaning and or power tool cleaning, to achieve a minimum depth profile of 25 micron (.001"). Wood is porous and may not require primer. Use NP-9500 primer to ensure maximum adhesion strength on most substrate types.

### **PRIMERS:**

**NP-8400:** Rubber

**NP-9500:** Metal

**NP-100:** Concrete

**NA-900 series:** Rubber

### **AVAILABLE KIT PACKAGING:**

Cartridge 300 x 150 ml (477 g), uses a hand dispensing gun.

Cartridge 600 x 300 ml (985 g), uses a pneumatic dispensing gun.

*Each cartridge is packaged including one mixing nozzle, sealed in a plastic bag.*

### **SAFETY:**

See the NORMAC UR-45T product SDS. Strict adherence to regional safety regulations must be practiced.



**normac**

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*The directions for the use of our products are based upon tests believed to be reliable but no warranty is given. Since conditions for the use of this product are beyond the seller's control, all risks are assumed by the user. Please contact your local agent or call Normac Adhesive Products Inc. for further assistance.*