

# LOW VISCOSITY LIQUID POLYURETHANE

NORMAC **UR-80LV** is a low viscosity liquid paste, room-temperature curing 80A Polyurethane coating designed for lasting surface protection and to repair existing substrates against wear, abrasion, and corrosion. Designed using PT-MEG Polyether with low-free technology which virtually eliminates isocyanate exposure. Working characteristics include self-leveling and or trowelable type applications requiring extended flowability. Packaged for easy on ratio mixing using our dual cartridge dispenser or hand mixing can kits. Used with primer, this material will adhere well to rubber, metal, polyurethane, polyurea, and concrete substrates.





# **Normac Adhesive Products Inc.**

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# **APPLICATION AREAS**

- Rubber linings/sheeting Conveyor belts and flights
- Conveyor clip joint protection Pumps and impellers
- Marine fenders
   Pipes, fluid handling equipment
- Chutes, screens, wear plates Shock absorbers
- Storage hoppers
   Deburring machine
  - · Guide bearing

## **PROPERTIES**

**Prepolymer:** PTMEG-Low Polyether **Hardness Shore A:** 80+/-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:** 12.65MPa (1835psi)

**Elongation ASTM D412:** 490%

Tear Strength ASTM D624 Die C: 47.81kN/m (273lbf-in)

Taber Abrasion 1kg, 1000cy, H18 ASTM D4060-19: 35mg loss Dry/wet operating temperature: -56°C (-70°F) to 93°C (200°F) Immersion operating temperature: Max 60°C (140°F)

**Chemical Resistance:** usually pH 3 - 11 **Mix density:** 1.042g/cm3 (.038lb/Cl)

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

Per Unit: 300 x 150 cartridge, 0.12sqm @ 3mm (1.3sqft @ 1/8")

600 x 300 cartridge, 0.24sqm @ 3mm (2.6sqft @ 1/8")

750q Can kit, 0.2sqm @ 3mm (2sqft @ 1/8")

# **APPLICATION DATA (23°C / 73°F)**

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

**Method:** Trowel, brush, roller **Pot Life:** 10 minutes **Buff to level:** > 3 hours

**Light Loading:** minimum 12 hours

**Ultimate Cure:** 5 days

**Overcoat:** < 15 minutes without additional surface preparation. Refer to "Surface Preparation" when overcoat time has expired.

#### **PRIMER: SUBSTRATE**

**NP-8400:** Rubber, Polyurethane, Polyurea **NP-9500:** Metal, Polyurethane, Fiberglass

NP-9600: Immersion service and Aluminum, Stainless

NP-100/200: Concrete

NA-900/600R: Rubber, Concrete/PVC belt

# **KIT PACKAGING**

UR8L1.....Cartridge 300 x 150ml (486g), requires manual dispenser tool UR8L2.....Cartridge 600 x 300ml (985g), requires powered dispenser tool

UR8LQ.....Quart Can Kit 750 gram A&B UR8LG.....Gallon Can Kit 3kg A&B Cartridge includes one mixing nozzle.

#### **SAFETY**

See the NORMAC UR-80LV product SDS. Strict adherence to regional safety regulations must be practiced.

## **SURFACE PREPARATION**

All substrates must be free from existing coatings, dry, clean, and structurally solid. Remove dirt and dust by sweeping or by dry compressed air. Contaminants like oil and grease can be cleaned using a lint free rag and a suitable solvent. When adequate surface preparation cannot be achieved, adhesion testing is done to confirm acceptable adhesion strength.

#### **METAL**

Includes ferrous and nonferrous. Radius all sharp edges, grind uneven seam lines, and remove weld splatter. For maximum adhesion, grit-blast to standard SSPC-SPI0 near white including a 50 micron (.002") depth profile. Other forms of cleaning and profiling are possible like slow speed grinding with aluminum oxide disks but expect lower adhesion strength. Specialty hardened metals require adhesion testing to ensure results. Cast and previously used metal should be checked for contamination and may require additional cleaning. NP-9500 primer must be used. NP-9600 wash primer can be used as a first coat for immersion service and for special alloys including aluminum and stainless.

#### **ELASTOMERS**

Includes cured rubber, polyurethane, polyurea, and PVC belting. De-gloss using abrasive blast cleaning or power tool cleaning methods. Include a minimum depth profile of 25 micron (.001"). Buffing or sanding using slow speed rotation by wire wheel, or 36 to 50 grit aluminum oxide disks can achieve results. Avoid melting or burning the elastomer surface during preparation as this will cause adhesion failure. NP-8400 primer is used for bonding to cured rubber, polyurethane, and polyurea. NA-600R cold bond cement is used for bonding to PVC belting.

## CONCRETE

Uneven and blow-holed surfaces should be repaired and allowed to cure. Grit-blasting or grinding to achieve a 50 micron (.002") depth profile. New concrete should be cured for a minimum of 28 days and contain less than 15% moisture. Concrete is sealed using NP-100/200 primer to prevent outgassing and to maximize adhesion. NP-100/200 primer can be mixed with sand to make a high strength repair mortar.

# **OTHER**

Includes carbon fiber, fiberglass, and wood. De-gloss using abrasive blast cleaning or power tool cleaning. Include a minimum depth profile of 25 micron (.001"). NP-9500 primer is used to maximize adhesion. Wood is porous and may not require primer.



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## **APPLICATION CONDITIONS**

Ambient and surface temperatures should be similar and between  $10^{\circ}\text{C}$  to  $45^{\circ}\text{C}$  ( $50^{\circ}\text{F}$  to  $113^{\circ}\text{F}$ ). Ensure temperatures are  $3^{\circ}\text{C}$  ( $5^{\circ}\text{F}$ ) above the current dew point with relative humidity under  $85^{\circ}$ . It is possible to apply outside this temperature range but expect pot-life and cure times to vary considerably. During colder temperatures Pt A (resin) may become solid or present a waxy appearance. Before mixing, slowly warm Pt A (resin) back to a clear liquid above  $20^{\circ}\text{C}$  ( $68^{\circ}\text{F}$ ). Always protect the surface from contaminants and direct sunlight.

# **APPLICATION INSTRUCTIONS**

- 1. Prime substrate. See primer TDS for application instructions
- 2. Build to desired thickness after the primer is touch dry
- 3. Additional layers can be applied within the overcoat window
- 4. Clean up immediately using a suitable solvent
- 5. Repairs can be done after lightly abrading and cleaning the area
- 6. Buffing to level the surface can be accomplished using a slow speed sander

#### **CAN KIT MIXING**

- 1. One 750g kit includes one (1) can 510g part A, and one (1) pouch 240g part B.
- 2. One 3kg kit includes one (1) can 2.04kg part A, and four (4) pouches 240g part B.
- 3. Material preconditioned temperature is >20°C (68°F).
- 4. Empty contents of part B (curative) into part A (resin).
- For large kit sizes, power mix using propeller type jiffy mixer and power drill.
- 6. Mlx thoroughly until a uniform streak free consistency has been achieved.
- 7. Avoid introducing air into the mixture.
- 8. Ensure mixing away from sides and bottom is done adequately.

## **DUAL CARTRIDGE MIXING**

- 1. Material preconditioned temperature is >20°C (68°F)
- Remove nut and cap seal. Install mixing nozzle using nut. Cut tip for desired material flow
- Install dual cartridge into dispensing gun. Dipose initial material
   (6") to ensure proper mixing
- Cartridges that are not fully depleted can be re-sealed and used again with a new mixing nozzle

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.