



## UR-90CN CONVEYOR BELT REPAIR SYSTEM

Normac UR-90CN is a two-component, low-viscosity liquid polyurethane conveyor belt surface repair material engineered for rapid curing at room temperature, providing MRO service teams with a distinct and simple repair or rebuilding advantage. Designed using a low-free prepolymer for improved health and safety during handling and processing. Available in two convenient kit sizes 300g and 750g. With surface preparation and primer, this material seamlessly adheres to standard conveyor belt rubber, polyurethane, PVC belt, and steel.



### PROPERTIES

**Prepolymer:** Modified-Low Polyether

**Hardness Shore A:** 88 +/-5

**Solids:** A side >90%, B side 100%

**VOC's:** A side 98g/L, B side 0g/L

**Mix ratio by weight:** 100A:10B

**Colour:** Black

**Flash Point:** -4 °C / 24.8 °F

**Shelf Life:** 18 months, unopened

**Storage:** 15°C-30°C (60°F-86°F) dry, away from sunlight

**Tensile Strength ASTM D412:** 2325 psi

**Elongation ASTM D412:** 395%

**Tear Strength ASTM D624 Die C:** 416 lbf-in

**Taber Abrasion 1kg, 1000cy, H18 ASTM D4060-19:** 46mg loss

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

**Chemical Resistance:** usually pH 3 - 11

**Mix density:** 1.053g/cm<sup>3</sup> (.038lb/ci)

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

**Per Unit:** 750g kit, 0.19sqm @ 1/8" (2sqft @ 1/8")

300g kit, 0.08sqm @ 1/8" (0.86sqft @ 1/8")

### APPLICATION DATA (23°C / 73°F)

**Precondition material:** > 15°C (60°F)

**Method:** Trowel, spatula

**Working Life:** 2 - 3 minutes

**Buff Repair:** > 1 hour

**Functional Cure:** 1 - 2 hours

**Ultimate Cure:** 24 Hours

**Overcoat:** Under 1 hour without additional surface preparation. Refer to "Surface Preparation" when overcoat time has expired.

### PRIMER: SUBSTRATE

**NP-8200 (1K) :** Rubber

**NP-9500 (2K) :** Metal alloys, multi-substrate

**NP-100/200 (2K) :** Concrete

**NA-900/600RC (2K) :** Rubber, Concrete/PVC belt

### PRODUCT CODE : KIT PACKAGE SIZE

UR9CNP.....300g/ Pint / 0.66lb

UR9CNQ.....750g/ Quart / 1.65lb

UR9CNPk .....Complete conveyor belt repair kit 300g

UR9CNQK .....Complete conveyor belt kit repair kit 750g

Complete kits include: resin, hardener, primer, solvent, mixing spatula, spreader, gloves, brush, cloth.

### SAFETY

FOR INDUSTRIAL USE ONLY. Flammable liquid. See the NORMAC UR-90CN product SDS. Strict adherence to regional health and safety regulations must be practiced.

## APPLICATION CONDITIONS

Ambient and surface temperatures should be similar and between 10°C to 45°C (50°F to 113°F). Ensure temperatures are 3°C (5°F) above the current dew point with relative humidity under 85%. 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 15°C (60°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 dry
3. Additional layers can be applied within the overcoat window
4. Clean up immediately using a suitable solvent like Ethyl Acetate
5. Touch-ups can be done after lightly abrading and cleaning the surface
6. Buffing to level the repaired surface can be accomplished using a slow speed sander.

## MIXING INSTRUCTIONS

1. Material preconditioned temperature is above 15°C (60°F).
2. Pour hardener (B) into resin (A) and hand mix thoroughly for 30-45 seconds.
3. Hand mix until a uniform consistency has been achieved.
4. Avoid introducing air into the mixture.
5. Ensure mixing away from sides and bottom is done adequately.

## SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation. All substrates must be free from existing coatings, 100% dry, clean, and structurally solid. Remove dirt and dust by sweeping or dry compressed air. Contaminants like oil and grease can be cleaned using a lint free rag and a suitable solvent like Ethyl Acetate. When adequate surface preparation cannot be achieved, adhesion testing is done to confirm acceptable adhesion strength can be achieved.

## RUBBER / ELASTOMERS

Includes cured rubber, urethane, 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 24 to 36 grit aluminum oxide disks can achieve results. Avoid melting or burning the elastomer surface during preparation as this will cause adhesion failure. NP-8200 primer is used for bonding to rubber. NA-600RC cold bond cement is used for bonding to PVC belting.

## 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-SPI10 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 steel.

## 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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