

# Liquid Rubber 80 - Black

Liquid Rubber is tough, black, flexible compound, used for repairs to rubber conveyor belts, filling concrete expansion joints, parts encapsulation, and making tough flexible moulds and patterns, as well as being used to form equipment linings which are abrasion resistant and noise reducing.

## Description

The resin container has enough room to dispense all of the hardener into the resin so that Liquid Rubber can be applied with a brush straight from the pack. A 20 minute pot life allows time to apply Liquid rubber, with a functional cure after 16 hours. Recoat time is usually 12 to 24 hours.

## Applications

- Conveyor belt repairs
- Filling concrete expansion joints
- Coating against wear and corrosion
- Coating wear-stressed surfaces in machine, container and automotive construction
- Manufacture of seals, gaskets and elastic supports.
- Reducing noise on chutes, vibrators and other process equipment
- Making flexible moulds & patterns
- Reducing vibration between parts
- Pads for press brake forming
- Encapsulation of sensitive instruments for protection against mechanical and water influence
- Encapsulation of electronic components

## Advantages

- Pourable
- Solvent free
- Good adhesion
- Very low shrinkage
- High abrasion resistance
- High tensile strength

## Directions for Use

### Surface Preparation

#### Metal Surfaces:

- Thoroughly clean the application area of oil, grease and dirt using Liquid Rubber Surface Cleaner.
- Roughen surfaces by abrasive blasting with 24 - 40 grit to create a good surface profile. Alternatively, use a 60 grit or coarser sandpaper or sanding disc and ensure substrate is back to bright metal.
- Make the repair as soon as possible after surface preparation to avoid oxidation or rusting. If this is not possible then coat the surface with Liquid Rubber Primer.

#### Rubber Surfaces:

- Thoroughly clean the application area of oil, grease and dirt using Liquid Rubber Surface Cleaner applied with an abrasive pad.
- Roughen surfaces by sanding the rubber with a 16 or 24 grit open coat sanding disc or sandpaper to produce a good surface profile. Ensure that all oil and contaminants are completely removed from the rubber.

#### Concrete Surface:

- Concrete requires multiple cleaning due to its porous nature.
- Degrease the application area using Liquid Rubber Surface Cleaner and rinse the area, preferably using a power washer or steam cleaner.
- Allow the floor to dry thoroughly before application.

## Priming Surfaces

Always use primer for best results and maximum adhesion.

### Metal Surfaces:

- Apply two coats of Liquid Rubber Primer and allow to dry tack free for at least 15 minutes.

### Rubber Surfaces:

- Apply one coat of Liquid Rubber Primer and allow to dry tack free for at least 15 minutes. On porous rubber surfaces multiple coats maybe necessary.

### Concrete Surfaces:

- Apply multiple coats of Liquid Rubber Primer until surface is sealed. Allow to dry for at least 30 minutes between coats.

### Wood & Fibreglass Surfaces:

- Apply one coat of Liquid Rubber Primer and allow to dry tack free for at least 15 minutes. With some softwoods multiple coats maybe necessary.

## Application of Liquid Rubber

Add Liquid Rubber Part B to Part A at the correct ratio and stir vigorously for 2 minutes. Ensure that the bottom and sides of the container are thoroughly scraped to ensure complete mixing.

### Filling Expansion Joints:

- Clean the joint to remove loose particles and ensure it is free from grease and oil.
- Prime the joint using Liquid Rubber Primer.
- If the joint is more than 50mm deep, use sharp sand to fill the bottom of the joint to exactly halfway.
- Pour the mixed Liquid Rubber into the joint from one side and allow the liquid to fill the entire area. This ensures that air bubbles are minimised.
- Fill the joint to 1mm below the height of the concrete to prevent overfilling.

### Conveyor Belt Repairs:

- Clean and prime the area to be repaired.
- If the belt is torn or holed right through, apply masking tape to the underside.
- Pour liquid rubber into the hole or tear, ensuring a thickness of at least 3mm to provide sufficient strength.

### Mould & Pattern Making etc.:

- Ensure that the master and the mould box are thoroughly cleaned. If wooden parts are used, ensure the wood is properly sealed.
- Liberally apply Liquid Rubber Release Agent over the master and mould box to prevent the Liquid Rubber from sticking.
- Brush a thin coat of Liquid Rubber over the master; this will help to prevent air bubbles.
- Fill the mould box with Liquid Rubber and allow to set for at least 24 hours.

### Lining Applications & Noise Reduction:

Liquid rubber is suitable for applications requiring impact resistance, such as feeder bowls in production plants and chutes in cement, coal or mining plants. Lining applications require a good coating depth for best results.

- Ensure that the surface is thoroughly cleaned and abraded to provide a good key.
- Do not feather edge the repair surface; instead, ensure the edge of the area to be coated is slightly recessed with a defined "butt joint". Failure to do this will allow the aggregate to undercut the cured Liquid Rubber.
- Apply two coats of primer and allow to dry for at least 30 minutes.
- Apply the Liquid Rubber with a brush to at least 1.5mm.
- Applying multiple layers of Liquid Rubber will build up a thicker, longer lasting, wear-resistant coating.

### Note:

Allow the Liquid Rubber to cure for at least 10 hours before returning equipment to light service. Once cured, the repair can be ground flush using a 24 or 36 grit open coat sanding disc. Ensure the grinder is kept moving and do not overheat the work surface. To shorten the cure time of Liquid Rubber, add Sylmasta PU Accelerator.

## Technical Data

|   |              |
|---|--------------|
| COLOUR.....                                       | Black        |
| MINIMUM SHELF LIFE (months @ 24°C,).....          | 12           |
| MIX RATIO (WEIGHT) .....                          | 100:60       |
| MIX RATIO (VOLUME) .....                          | 100:66       |
| POT LIFE (500g, minutes) .....                    | 15 - 20      |
| DENSITY (gm/cm <sup>3</sup> ) .....               | 1.2          |
| RECOAT TIME (hours).....                          | 12 - 24      |
| LIGHT SERVICE (hours).....                        | 10 - 16      |
| MEDIUM SERVICE (hours) .....                      | 24           |
| FULL CURE (days) .....                            | 7            |
| THICKNESS PER COAT (mm) .....                     | 1 - 1.5      |
| HARDNESS, SHORE A (full cure, 24 hrs.) .....      | 89           |
| TEAR RESISTANCE (N/mm).....                       | 27           |
| TENSILE STRENGTH (MPa).....                       | 25           |
| ELONGATION AT BREAK (%).....                      | 300          |
| ADHESIVE TENSILE STRENGTH (mild steel, MPa) ..... | 5.1          |
| LINEAR SHRINKAGE (%) .....                        | 0.1          |
| ABRASION RESISTANCE (mm <sup>3</sup> ) .....      | 75           |
| NON-VOLATILE CONTENT (%) .....                    | 100          |
| TEMPERATURE RESISTANCE (°C)                       |              |
| Wet.....  | 65           |
| Dry.....  | 90           |
| MIXED VISCOSITY (mPas).....                       | approx. 2300 |

*(values are typical and should only be used as a guideline)*

## Packaging

Available in 500g, 2kg, 5kg and 16kg kits.

## Storage

Sylmasta Liquid Rubber should be stored out of direct sunlight in dry, frost free conditions at temperatures between 18° and 25°C. Under such conditions shelf life will be 12 months from the date of manufacture.

## Health & Safety

Please consult the individual Material Safety Data Sheet for hazard information. Wear eye protection and rubber or plastic coated gloves, and wash hands with soap and water immediately after use.