



Provides maintenance free PRODUCTION - LONGER

SYNTHETIC RUBBER LIQUID

TECHNICAL REFERENCE INFORMATION



SYNTHETIC RUBBER LIQUID is a liquid polyurethane casting compound that exhibits excellent flow properties and cures to a very tough flexible rubber. It also exhibits excellent properties for tooling applications and is extremely wear and abrasion resistant.

TYPICALLY USED ON:

- | | |
|--------------------|------------------|
| Bins | Castings |
| Conveyor belting | Damaged rubber |
| Ducting | Expansion joints |
| Fixtures | Gaskets |
| Linings | Mouldings |
| Mountings & blocks | Noise reduction |
| Rollers | |

GENERAL PRODUCT INFORMATION

USERS DATA

Ratio by weight	2:1
Ratio by volume	2.4:1
Pot Life 500g minutes @ 24°C	15
Mixed colour	Black
Mixed consistency @ 24°C	Liquid
Specific gravity when mixed	1.13
Coverage, kg/m ² @ 1mm	1.2

TYPICAL CURED PROPERTIES

Compressive strength ASTM D695, Mpa	24
Tensile strength ASTM D412, Mpa	31
Tear resistance ATSM D624 Die C, pli	200
Elongation ASTM D412	700
Hardness, Shore A	90
Maximum operating temperature, ° C	85
Cure to handling @ 5mm, Minutes	90
Cure time @ 5mm, Hours	36

CHEMICAL RESISTANCE

Tested at 21°C. Samples cured for 10 days at 25°C.
Curing at elevated temperatures (ie: > 45°C) will improve chemical resistance.

- 1 = Continuous or long term immersion
- 2 = Short term immersion
- 3 = Splash and spills
- 4 = Avoid contact

Acetic Acid, 10 %	2	Acetone	3
Acetic Acid, Glacial	2	Ammonium Chloride	1
Hydrochloric Acid, 5 %	1	Beer	2
Hydrochloric Acid, 10 %	2	Dichloromethane	4
Hydrochloric Acid, conc	3	Diesel Fuel	2
Nitric Acid, 5 %	2	Isopropyl Alcohol	2
Nitric Acid, 10 %	3	Kerosene	2
Phosphoric Acid, 5 %	1	Petrol	2
Phosphoric Acid, 20 %	1	Salt Water	1
Sulfuric Acid, 5 %	2	Sewage	2
Sulfuric Acid, 20 %	3	Skydrol	3
Ammonium Hydroxide, 5 %	1	Sodium Cyanide	1
Ammonium Hydroxide, 20 %	1	Sodium Hypochlorite	2
Potassium Hydroxide, 5 %	1	Toluene	3
Potassium Hydroxide, 20 %	1	Trichloroethane	3
Sodium Hydroxide, 5 %	1	Wine	2
Sodium Hydroxide, 20 %	1	Xylene	3

This information is supplied as an indicative reference only. Caution should be used where direct comparisons are to be made.

SURFACE PREPARATION

It is essential that all surfaces to be treated are properly prepared to obtain a strong bond between the substrate and the product.

- All oil, dirt and other loose contamination must be removed by washing, degreasing or blasting.
- Surfaces should preferably be abrasive blasted although roughening using mechanical alternatives such as wire brush or abrasive disc can be used to leave a clean surface, free of scale, rust and other foreign substances.

For maximum adhesion to metallic surfaces, grit blast to expose a sound substrate with a nominal surface profile of 50-80 micron. Application should take place immediately after preparation to avoid oxidation of the freshly prepared surface.

Surfaces that have been exposed to extreme environments such as continuous operation in sea water or petroleum products may necessitate alternate preparation procedures. Consult National or International standards where possible.

APPLICATION

After priming, apply a very thin scratch or smear coat directly to the prepared surface to maximize surface contact before proceeding to apply additional product to the desired build. Ensure product has been worked into all cracks and voids to eliminate air bubbles. If applying several coats or layers, any previously applied product must be roughened if it has been left to cure for more than 24 hours.

HARDNESS REDUCTION

In some applications, it may be desirable to have a softer, more resilient - lower durometer - product. SR Flexibilizer may be added to reduce hardness. Add SR Flexibilizer to Part A of Synthetic Rubber during the initial mixing procedure. 2% addition of SR Flexibilizer to Synthetic Rubber will reduce the hardness by a factor of 1. Therefore, to reduce the shore hardness by 10, 20% SR Flexibilizer is required to be added to Synthetic Rubber.

CLEAN UP

Clean tools and equipment immediately after use with Cleanup or a heavy duty industrial hand cleaner or detergent.

CURE

Variations in cure may arise due to the amount of material being applied, the thickness of material being applied, the surface temperature, and the product temperature. The cure may be increased by applying external heat to the prepared surface before application of the product. This can be done with heat lamps or other heat sources. The cure may be decreased by cooling the product before mixing.

SHELF LIFE

Store away from heat and direct sunlight. A minimum of 1 year should be expected if held in original unopened containers. Part A, if stored or subjected to low temperatures, may go solid or become hazy in appearance. If this should occur, warm the contents until the product is free flowing before use.

WARRANTY

Since the storage, handling and use of this product is beyond our control, this product is supplied without guarantee. Furthermore, nothing should be construed as a recommendation to use this product in conflict with existing patents.

Material Safety Data (PART A)

U.N. Number	None Allocated
Dangerous Goods Class and Subsidiary Risk:	None Allocated
Hazchem Code:	None Allocated
Poisons Schedule:	5

Physical Description / Properties

Colour:	Hazy Liquid
Odour:	Slight
Percent Volatiles:	0%
Specific Gravity:	1.1
Solubility in Water:	Non Soluble
Flash Point (°C):	Non Flammable
Flammability Limits:	Not Applicable

Ingredient Chemical entity

Polyurethane Prepolymer Resin Mixture
Proprietary Formula

Proportion

High

(High>60%) (Medium 10% - 60%) (Low<10%)

Material Safety Data (PART B)

U.N. Number	None Allocated
Dangerous Goods Class and Subsidiary Risk:	None Allocated
Hazchem Code:	None Allocated
Poisons Schedule:	5

Physical Description / Properties

Colour:	Black
Odour:	Slight Amine
Percent Volatiles:	0%
Specific Gravity:	1.25
Solubility in Water:	Non Soluble
Flash Point (°C):	Non Flammable
Flammability Limits:	Not Applicable

Ingredient Chemical entity

Polyol Curative

Proportion

High

(High>60%) (Medium 10% - 60%) (Low<10%)

HEALTH HAZARD INFORMATION

Health Effects

Swallowed:	Possible irritant. Can result in nausea, vomiting, stomach pain or discomfort.
Eye:	Irritation, no corneal damage likely.
Skin:	Possible irritant. Prolonged or repeated uncontrolled exposure may lead to dermatitic effects.
Inhaled:	None likely, unless heated to extremely high temperatures, in which case irritation of the respiratory tract may occur.

First Aid

Swallowed:	DO NOT induce vomiting. Give a glass of water and contact a doctor or the Poisons Information Centre.
Eye:	Hold eye lids open and flood with water for 15 minutes. See a doctor.
Skin:	Remove contaminated clothing, wash affected area with soap and water. If swelling or blisters occur, seek medical attention.
Inhaled:	Not considered likely, however, if effects are perceived, remove to fresh air and rinse mouth and nasal passage with water.

PRECAUTIONS FOR USE

Exposure limits:	Not determined for this product.
Ventilation:	Conventional airflow is generally acceptable. In confined areas, exhaust fans should be utilised in accordance with proper safe handling procedures.
Personal protection:	Avoid contact with skin and eyes. Wear coveralls, rubber gloves and eye protection while handling.
Flammability:	Non flammable.

SAFE HANDLING INFORMATION

Storage:	No special transporting requirements. When storing, do not allow to freeze and store below 35°C. i.e. Store between 5°C and 35°C.
Spills and Disposals:	Pick up and consult local authorities for disposal. Alternatively, cure as per directions for use and landfill.
Fire/Explosion Hazard:	This product is non flammable, it may burn although auto ignition is highly unlikely. Fumes in the form of oxides of carbon and nitrogen will be evolved during combustion. Self contained breathing apparatus should be available for firemen and water sprays, foam, dry chemical or CO ₂ should be used.

This MSD summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSD and consider the information in the context of how the product will be handled and used in the workplace including use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact the manufacturer.

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