

# Chemlok® 7701 Surface Treatment

## Description

LORD Chemlok® 7701 surface treatment is a solvent-based surface treatment for use on various vulcanized and thermoplastic polymeric materials. Chemlok 7701 surface treatment chemically alters the surface of the rubber, making it more receptive to bonding. Do not apply to metal surfaces.

Chemlok 7701 surface treatment is used in conjunction with a broad range of LORD adhesives, including epoxy and urethane adhesives, for bonding cured rubber. It improves adhesion to a variety of cured and thermoplastic polymeric materials, including natural rubber, synthetic polyisoprene, SBR, butyl, polybutadiene, neoprene, EPDM, nitrile, polyurethane, styrene-butadiene block copolymers, styrene isoprene rubbers and polyvinyl chloride.

## Features and Benefits

**Versatile** – functions as a cleaner and surface conditioner; treats a wide variety of elastomer functional materials.

**Easy to Apply** – applies easily by wipe, brush, dip or flood methods.

**Convenient** – requires no mixing.

**Improved Adhesion** – improves adhesion to cast urethanes and cured rubber.

**Fast Drying** – surface treatment flashes off within five minutes or less.

**Environmentally Resistant** – promotes increased environmental resistance by allowing the treated surface to be more easily wet.

## Application

**Surface Preparation** – Remove contaminants from rubber surface using a solvent wipe.

**Applying** – Apply Chemlok 7701 surface treatment by wipe, brush, dip or flood methods. Spray application is not recommended due to the reactivity of the material.

Transfer the minimum amount of material necessary for the application into a new, clean container.

- Wiping (preferred method)  
Apply surface treatment using a clean cotton rag. Change the rag frequently as it becomes contaminated with materials picked up from the surface being treated.

## Typical Properties\*

Appearance	Clear to Cloudy Liquid
Density	
kg/m <sup>3</sup>	870.0-930.0
(lb/gal)	(7.3-7.8)
Solids Content by Weight, %	2.3-3.5
Flash Point (Seta), °C (°F)	-4 (25)
Solvent	Ethyl Acetate

\*Data is typical and not to be used for specification purposes.

- **Brushing**

Apply surface treatment using a bristle or foam brush. Check foam-type brushes for compatibility before use. Use bristle brushes from man-made materials. Do not allow brushes with metal handles or metal collars to come in contact with the surface treatment.

- **Dipping**

Immerse parts in surface treatment. Place treated parts on a rack to allow excess material to drip off and the solvent to flash off.

To prevent contamination, discard excess material; do not return excess material to original container.

The treatment is complete after the solvent flashes off (<5 minutes). Rinsing is not necessary. The best bonds are achieved by assembling parts shortly after the solvent has flashed off. However, effective bonds have been obtained on parts stored under controlled conditions. Parts can be retreated, as necessary.

**Cleanup** – Use ethyl acetate for clean up. In the event of a spill, use large quantities of water to flush the area.

## **Shelf Life/Storage**

Shelf life is six months from date of shipment when stored by the recipient at 21-27°C (70-80°F) in original, unopened container.

Avoid storage in lighted areas. Store material in original container or UV-filtering plastic or glass container. Do not store in metal containers. Store Chemlok 7701 surface treatment in a cool, dark area away from oil, grease, sawdust, floor sweepings, easily oxidized organic compounds, ammonia, amines, ammonia salts, and metallic materials. Do not contaminate with water or alcohol.

## **Cautionary Information**

Before using this or any LORD product, refer to the Safety Data Sheet (SDS) and label for safe use and handling instructions.

*For industrial/commercial use only.* Must be applied by trained personnel only. Not to be used in household applications. Not for consumer use.

## Bond Performance of Epoxy Adhesive\*

	<b>Epoxy Adhesive to Natural</b>	<b>Epoxy Adhesive to SBR</b>	<b>Epoxy Adhesive to Nitrile</b>
Chemlok 7701 Surface Treatment	40-50 pli 100% R	105-120 pli 100% R	75-85 pli 100% R

\* Typical ranges reflect results of lab testing using LORD 305-1/305-2 adhesive (1:1 by weight) or LORD 320/310B adhesive (1:1 by weight).  
 R = Rubber Failure  
 0.3 cm x 15 cm x 2 cm (1/10" x 6" x 1") rubber part bonded to grit-blasted steel; cure 48 hours @ room temperature  
 ASTM D429-B 45° angle

## Bond Performance of Castable Polyurethane

	<b>Cast Urethane to Natural</b>	<b>Cast Urethane to SBR</b>	<b>Cast Urethane to Nitrile</b>	<b>Cast Urethane to Polychloroprene</b>
Chemlok 7701 Surface Treatment	105-120 pli 100 % R	75-85 pli 100 % R, SB	70-80 pli 100% R	40-50 pli 100% R
No Treatment	10-15 pli 0% R	0 pli 0% R	40-45 pli 0% R	30-40 pli 0% R

R = Rubber Failure; SB = Stock Break  
 0.3 cm x 15 cm x 2 cm (1/10" x 6" x 1") rubber part bonded to grit-blasted steel; cure 48 hours @ room temperature  
 ASTM D429-B 45° angle

Values stated in this technical data sheet represent typical values as not all tests are run on each lot of material produced. For formalized product specifications for specific product end uses, contact the Customer Support Center.

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