

7707

Surface Treatment for Polymeric Elastomers

Description

Lord[®] 7707 is a solvent-based surface treatment for various vulcanized and thermoplastic polymeric materials. Lord 7707 enhances the adhesion with epoxy and urethane adhesives when joining rubber to itself or to other materials.

Lord 7707 provides improved adhesion on cured rubber and thermoplastic polymeric materials. These materials include natural rubber, synthetic polyisoprene, SBR, butyl, polybutadiene, Neoprene[®], EPDM, nitrile, polyurethane, styrene butadiene block copolymers, styrene isoprene rubbers, and polyvinyl chloride, (PVC).

Features and Benefits

Fast - typical treatments are completed within 5 minutes or less.

Versatile - functions as a cleaner and surface conditioner.

Superior Adhesion at Low Cost - improves adhesion to cast urethanes and cured rubber.

Easy to Apply - allows for application by brush, dip, flood or wipe methods. No additional equipment is required.

Broad Product Application - treats a wide variety of elastomer functional materials.

Excellent Environmental Resistance - allows the surface to become easier to wet. Lord 7707 surface treatment promotes increased adhesion and better environmental resistance.

Typical Properties* of Lord 7707 Surface Treatment

Appearance	Hazy to cloudy liquid
Non-volatile Content by weight	2.0% - 3.6%
Density kg/m ³ lb/gl	875 - 899 7.3 - 7.5
Flash Point (Seta Flash)	33°C (92°F)
Solvent	ethyl acetate/n-butyl acetate
Shelf Life	Six months from date of shipment, when stored unopened at 21°C - 27°C (70°F - 80°F).

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

**Lord 7707 Surface Treatment
Typical Pull value Ranges*
Rubber to Grit Blasted Steel**

	Natural	SBR	Nitrile
Pull Values	40-50 PLI	105-120 PLI	75-85 PLI
% Rubber Retention	100%R	100%R	100%R

NOTES: R = Rubber Tear SB = Stock Break PLI = Pounds per Linear Inch Pull
 * A rubber part, 1/10" x 6" x 1", bonded to grit-blasted steel and cured 48 hours at room temperature (ASTM D429-B 45° angle). *Typical Ranges reflect results of lab testing using Lord 305-1/305-2 (1:1 by wt.) or Lord 310A/B (1:1 by wt.) adhesive systems.

**Adhesion of Castable Polyurethanes
To Cured Rubbers***

	Cast Urethane to Polychloroprene	Cast Urethane to Natural	Cast Urethane to SBR	Cast Urethane to Nitrile
Lord 7701 Treatment	40-50 PLI 100%R	105-120 PLI 100%R	75-85 PLI 100%R, SB	70-80 PLI 100%R
No Treatment	30-40 PLI 0%R	10-15 PLI 0%R	0 PLI 0%R	40-45 PLI 0%R

NOTES: R = Rubber Tear SB = Stock Break PLI = Pounds per Linear Inch Pull
 *A rubber part, 1/10" x 6" x 1", bonded to grit-blasted steel and cured 48 hours at room temperature (ASTM D429-B 45° angle). *Typical Ranges reflect results of lab testing using Lord 305-1/305-2 (1:1 by wt.) or Lord 310A/B (1:1 by wt.) adhesive systems.

Surface Preparation

Use a solvent wipe to clean rubber surfaces if gross contamination is observed.

Mixing

Stir Lord 7707 surface treatment before use.

Application

Apply Lord 7707 surface treatment by wiping (preferred), brushing, dipping, flooding or spraying. Pour out only the minimum amount of primer necessary for the job. Use a new, clean container for the primer. To prevent contamination, do not return excess primer to original container; discard instead.

Wipe Method - Apply primer using a clean cotton rag. Change the rag out frequently as it becomes contaminated with materials picked up from the surface being treated.

Brush Method - Apply primer using a bristle or foam brush. Note: Do not allow brushes with metal handles or metal collars to come in contact with the

primer. Check foam-type brushes for compatibility before use. Use bristle brushes from man-made materials.

Dip Method - Immerse elastomer in primer. Place treated parts on a rack to allow excess material to drip off and the solvent to flash off.

Spray Method - Use non-metallic specialty spray equipment due to the volatility and reactivity of the product. Solvent wipe rubber surfaces prior to treating, if gross surface contamination is observed.

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

Clean Up

This primer dries rapidly. If available, ethyl acetate may be used for clean up.

Packaging

- 1/2 Pint Container (0.24 Liter)
- 1 Quart Container (0.95 Liter)

Storage

Avoid storage in lighted areas. Store only in original container or UV-filtering plastic or glass container. Do not store in metal containers. Store Lord 7707 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. In the event of a spill, use large quantities of water to flush the area.

Cautionary Information

Before using this or any Lord product, refer to the Material Safety Data Sheet (MSDS) 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.

Values stated in this bulletin 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 Service Department.

Information provided herein is based upon tests believed to be reliable. Inasmuch as Lord Corporation has no control over the manner in which others may use this information, it does not guarantee the results to be obtained. In addition, Lord Corporation does not guarantee the performance of the product or the results obtained from the use of the product or this information where the product has been repackaged by any third party including but not limited to any product end user. Nor does the company make any express or implied warranty of merchantability, or fitness for a particular purpose concerning the effects or results of such use.

Lord is a registered trademark of Lord Techmark, Inc., a subsidiary of Lord Corporation.

©Lord Corporation Printed in USA DS3462 (Rev. 3 4/04)

For information, contact Bergdahl Associates, Inc.
2990 Sutro Street
Reno, Nevada 89512-1616
775-323-7595

The logo for LORD, featuring the word "LORD" in a bold, black, sans-serif font. The letter "O" is stylized with a white circle inside it.