

# Chemosil® 350 Elastomer Bonding Agent

## Description

LORD Chemosil® 350 elastomer bonding agent is a one-coat material used to bond acrylate (ACM), nitrile (NBR) and epichlorohydrin (ECO) elastomer compounds to metal, alloys and other rigid substrates during the vulcanization process. It is composed of a mixture of dispersed polymers in an organic solvent system.

## Features and Benefits

**Convenient** – requires only a single coat for most applications.

**Versatile** – forms a slightly tacky film suitable for rubber roller coatings.

**Easy to Apply** – applies easily by spray, dip, brush or roll coat methods.

**Environmentally Resistant** – provides excellent resistance to solvents, water and oils.

**Excellent Adhesion** – provides excellent adhesion even at low vulcanization pressure.

## Application

**Surface Preparation** – Thoroughly clean metal surfaces prior to adhesive application. Remove protective oils, cutting oils and greases by solvent degreasing or alkaline cleaning. Remove rust, scale or oxide coatings by suitable chemical or mechanical cleaning methods.

- **Chemical Cleaning**  
Chemical treatments are readily adapted to automated metal treatment and adhesive application lines. Chemical treatments are also used on metal parts that would be distorted by blast cleaning or where tight tolerances must be maintained. Phosphatizing is a commonly used chemical treatment for steel, while conversion coatings are commonly used for aluminum.
- **Mechanical Cleaning**  
Grit blasting is the most widely used method of mechanical cleaning. However machining, grinding or wire brushing can be used. Use steel grit to blast clean steel, cast iron and other ferrous metals. Use aluminum oxide, sand or other nonferrous grit to blast clean stainless steel, aluminum, brass, zinc and other nonferrous metals.

For further detailed information on surface preparation of specific substrates, refer to Chemlok/Chemosil Adhesives application guide. Handle clean metal surfaces with clean gloves to avoid contamination with skin oils.

## Typical Properties\*

Appearance	Brown Liquid
Viscosity, cps @ 25°C (77°F) Brookfield LVT Spindle 2, 30 rpm	40-80
Density @ 20°C (68°F) g/cm <sup>3</sup> (lb/gal)	0.90-1.10 (7.51-9.18)
Solids Content by Weight, % 1.25 gram dried 120 min @ 110°C (230°F)	38-42
Flash Point, °C (°F) Pensky-Martens	13 (55)
Solvents	Ethanol, Methoxy Butyl Acetate

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

# LORD TECHNICAL DATA

**Mixing** – Thoroughly stir Chemosil 350 bonding agent before use, and agitate sufficiently during use to keep dispersed solids uniformly suspended.

Transfer amount of bonding agent required to a clean container. Slowly add diluent to bonding agent while mixing. Continuously stir material to prevent sedimentation.

**Applying** – Apply bonding agent by brush, roll coat, dip or spray methods. Avoid applying thick coats which result in poor drying and may lead to film displacement during molding.

- Brushing/Roll Coating  
Dilute bonding agent with up to 100% of ethanol.
- Dipping  
Dilute bonding agent with up to 50-100% of ethanol.
- Spraying  
Dilute bonding agent to a viscosity of 12-14 seconds using 100-150% ethanol.

Regardless of application method, recommended dry film thickness of Chemosil 350 bonding agent is 10-15 micron (0.4-0.6 mil).

**Drying/Curing** – Allow applied bonding agent to air-dry for 60 minutes at room temperature. Drying time can be shortened by using hot air drying ovens or tunnels up to 90°C (194°F).

Dried films of Chemosil 350 bonding agent are non-tacky; therefore, coated parts can be stacked and stored in a dry, grease-free environment for extended periods without affecting bond performance.

Bonding occurs during vulcanization process of the rubber under recommended cure temperatures of 120-180°C (248-356°F).

Sweep resistance may be improved, if required, by preheating coated parts for 10 minutes to 1 hour at 100°C (212°F) before vulcanization.

**Cleanup** – Use ethanol for clean up.

## Shelf Life/Storage

Shelf life is one year from date of manufacture when stored below 25°C (77°F) in original, unopened container.

## 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.

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.

Information provided herein is based upon tests believed to be reliable. In as much 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.

Chemosil and "Ask Us How" are trademarks of LORD Corporation or one of its subsidiaries.

LORD provides valuable expertise in adhesives and coatings, vibration and motion control, and magnetically responsive technologies. Our people work in collaboration with our customers to help them increase the value of their products. Innovative and responsive in an ever-changing marketplace, we are focused on providing solutions for our customers worldwide ... Ask Us How.

**LORD Corporation**  
**World Headquarters**  
111 Lord Drive  
Cary, NC 27511-7923  
USA

**Europe**  
2, Chemin du Pavillon  
CH-1218 Le Grand Saconnex  
Geneva, Switzerland  
+41 (0) 22 761 50 60

[www.lord.com](http://www.lord.com)

For a listing of our worldwide locations, visit [LORD.com](http://LORD.com).

**LORD**  
AskUsHow™