

Chemlok® 2332 Adhesive

Description

LORD Chemlok® 2332 adhesive is a covercoat adhesive used to bond a wide variety of unvulcanized or vulcanized rubber compounds to Chemlok 205 and Chemosil® 211 primed metals or other rigid substrates. It is composed of a mixture of polymers, organic compounds and mineral fillers dissolved or dispersed in an organic solvent system.

Chemlok 2332 adhesive will bond treated textiles to rubber during vulcanization process, and also bond compounds based on natural rubber (NR), polyisoprene (IR), styrene-butadiene (SBR), polybutadiene (BR), polychloroprene (CR), nitrile (NBR), hydrogenated nitrile (HNBR), butyl (IIR), millable polyurethane and polyepichlorohydrin (ECO) polymers to Chemlok 205 and Chemosil 211 primed metals and other rigid substrates.

Features and Benefits

Versatile – when used in combination with Chemlok 205 or Chemosil 211 primer, bonds a wide variety of cured and uncured elastomer compounds to rigid substrates; bonds treated textiles to rubber during vulcanization.

Improved Shelf Life – resists hard settling.

High Temperature Resistant – withstands temperatures, up to 149°C (300°F), often encountered during routine service of bonded assembly.

Environmentally Resistant – provides rubber tearing bonds and excellent resistance to salt spray, heat and water when used in combination with Chemlok primer.

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

Application

Surface Preparation – Thoroughly clean metal surfaces prior to primer 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.

Typical Properties*

Appearance	Black Liquid
Viscosity, cps @ 25°C (77°F) Brookfield LVT Spindle 2, 30 rpm	100-300
Density	
kg/m ³	922.7-982.6
(lb/gal)	(7.7-8.2)
Solids Content by Weight, %	23-26
Flash Point (Seta), °C (°F)	27 (81)
Solvents	Xylene

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

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- **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 Adhesives application guide. Handle clean metal surfaces with clean gloves to avoid contamination with skin oils.

Allow primer to thoroughly dry before applying Chemlok 2332 adhesive. For further details on the use of Chemlok 205 or Chemosil 211 primer, refer to the applicable primer data sheet.

Mixing – Thoroughly stir Chemlok 2332 adhesive before applying over primer. Mix drums for at least 8 hours at 30-60 rpm before using. Use an air-driven or other explosion-proof mixer for agitator drums or on other smaller containers.

Agitate sufficiently during use to keep dispersed solids uniformly suspended. Give careful attention to agitation since dilution will accelerate settling.

Applying – Apply adhesive by brush, dip, spray or roll coat methods.

- **Brushing/Roll Coating**
Use full strength.
- **Dipping**
Use full strength or dilute adhesive with 10-25% xylene or toluene, by volume.
- **Spraying**
Dilute adhesive with 25-50% xylene or toluene, by volume.

For optimum adhesion and environmental resistance, the dry film thicknesses of Chemlok 2332 adhesive should be 12.7-17.8 micron (0.5-0.7 mil) over primer. Thicker films may be necessary on certain hard-to-bond rubber compounds and where maximum environmental resistance is required. When bonding textile, increase recommended dry film thickness by 6-10%.

Drying/Curing – Allow the applied adhesive to dry until visual examination of the film has shown that all solvent has evaporated. This will take approximately 30-60 minutes at room temperature. Drying time can be shortened by either preheating the metal inserts or oven drying after application. Metal parts can be preheated to a maximum of 65°C (150°F) prior to adhesive application. Maximum air flow at minimum temperatures will give the best results.

Dried films of Chemlok 2332 adhesive are non-tacky; therefore, coated parts may be stored up to 30 days for subsequent processing. Avoid contamination of coated parts by dirt, oil or grease. Wear clean cotton gloves if direct contact with coated surface is unavoidable. If coated parts are properly protected, layover times between adhesive application and bonding usually have no adverse effect on the bond. If humidity is high, layover time will be shortened.

Chemlok 2332 adhesive can be used in compression, transfer and injection molding procedures. Ideal bonding conditions involve a minimum amount of time between loading the adhesive-coated parts and elastomer vulcanization. Take care when removing parts from the mold. Bonded assemblies should not be treated with materials that contain acetone as deterioration of the bond is possible.

Cleanup – Use solvents such as xylene or methyl ethyl ketone (MEK) to remove adhesive before heat is applied. Remove cured adhesive by mechanical abrasion methods.

Shelf Life/Storage

Shelf life is nine months from date of shipment when stored below 25°C (77°F) in original, unopened container. Do not store or use near heat, sparks or open flame.

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.

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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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