

Chemlok® 6108 Adhesive

Description

LORD Chemlok® 6108 adhesive is a lead-free** covercoat adhesive designed for use over Chemlok 205 or 207 primer. This adhesive system will bond a variety of uncured elastomers to metal substrates during vulcanization. It is composed of a mixture of polymers, organic compounds and mineral fillers dissolved or dispersed in an organic solvent system.

This adhesive system will bond compounds based on natural rubber (NR), polyisoprene (IR), styrene-butadiene (SBR), polybutadiene (BR), polychloroprene (CR), nitrile (NBR), butyl (IIR) and EPDM polymers to metals. These metals include carbon and alloy steels, stainless steel, aluminum, magnesium, zinc, copper and copper alloys.

Chemlok 205 or 207 primer helps to ensure environmental resistance of the bonded assembly and adhesion to the substrate.

Features and Benefits

Non-Chlorinated Solvent System – suitable for solvent incineration.

Environmentally Resistant – provides superior resistance to heat, oils and salt spray.

Environmentally Friendly – reduces substantially the levels of heavy metals.

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

Typical Properties*

Appearance	Black Liquid
Viscosity, seconds Zahn Cup #4	30-74
Density kg/m ³ (lb/gal)	922.7-994.5 (7.7-8.3)
Solids Content by Weight, %	22-26
Flash Point (Seta), °C (°F)	27 (80)
Solvents	Xylene

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

LORD TECHNICAL DATA

Allow primer to thoroughly dry before applying Chemlok 6108 adhesive. For further details on the use of Chemlok 205 or 207 primer, refer to the applicable data sheet.

Mixing – Thoroughly stir Chemlok 6108 adhesive before applying adhesive over primer. Agitate sufficiently during use to keep dispersed solids uniformly suspended.

Applying – Apply Chemlok 6108 adhesive by brush, dip or spray methods. For dip application, use full strength. For other application methods, Chemlok 6108 adhesive can be diluted with xylene or toluene.

Regardless of application method, use the following recommended dry film thicknesses for optimum adhesion and environmental resistance:

Chemlok 205 or 207	5.1-10.2 micron (0.2-0.4 mil)
Chemlok 6108	17.8-25.4 micron (0.7-1.0 mil)

Curing – Chemlok 6108 adhesive can be used to bond rubber by compression, transfer, injection or other molding procedures used to make bonded parts. As with other Chemlok adhesives, maximum adhesion is obtained when the rubber has completely cured. Ideal bonding conditions exist when both the adhesive and the rubber cure at the same time. To accomplish this, load the adhesive coated metal parts in the mold, and quickly fill the cavity with rubber.

Dry films of Chemlok 6108 adhesive remain firm at molding temperatures. During transfer or injection molding operations, the adhesive shows minimal tendency to wipe or sweep. During multiple-cavity loading, the prebaking begins with the first loaded metal parts. Keep mold loading cycles to a minimum to prevent adhesive and rubber pre-curing. Transfer or injection molds need properly designed runners and sprues as well as adequate pressures. This prevents rubber pre-curing before the mold cavities are completely filled.

Cleanup – Use solvents such as xylene and methyl ethyl ketone (MEK) to clean adhesive before heat is applied. Once cured, removal by solvent is not possible.

Shelf Life/Storage

Shelf life is one year from date of shipment when stored at 21-27°C (70-80°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 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.

*** Lead-free – while not intentionally formulated into the product, lead can sometimes be a trace contaminant in raw materials (e.g., mineral fillers) and may be detectable in random sampling at very low levels (generally less than 100 ppm).*

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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