

Chemlok® 6100 Adhesive

LORD Chemlok® 6100 adhesive is a covercoat adhesive designed for use over Chemlok 205 or 207 primer. This adhesive system will bond a variety of unvulcanized rubber compounds to metal. It is formulated without heavy metals and 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 metal.

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

Features and Benefits

Versatile – bonds a variety of elastomers and metals when used in combination with Chemlok 205 or 207 primer. Chemlok 6100 adhesive provides excellent adhesion to mechanically or chemically treated cold rolled steel or aluminum.

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

Excellent Appearance – provides a continuous film appearance.

Process Compatible – resists sweeping; accommodates a wide range of processing conditions including extended prebake.

Environmentally Resistant – provides excellent resistance to salt spray.

Environmentally Recommended – formulated without heavy metals.

Convenient – requires only a single coat for most applications, reducing labor, solvent usage, inventory and shipping costs.

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

Typical Properties*

Appearance	Black Liquid
Viscosity	
cps @ 25°C (77°F)	350-700
Brookfield LVT	
Spindle 2, 30 rpm	
seconds @ 25°C (77°F)	63
Zahn Cup #3	
Density	
kg/m ³	940.0-980.0
(lb/gal)	(7.8-8.2)
Solids Content by Weight, %	21-24
Flash Point (Seta), °C (°F)	27 (81)
Solvents	Xylene

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

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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.

Allow primer to thoroughly dry before applying Chemlok 6100 adhesive. For further details on the use of Chemlok 205 or 207 primer, refer to the applicable data sheet.

Mixing – Thoroughly stir Chemlok 6100 adhesive before applying adhesive over primer. Agitate sufficiently during use to keep dispersed solids uniformly suspended.

Chemlok 6100 adhesive is normally used full strength for brush or dip applications. For spray application, dilute adhesive with xylene or toluene to a Zahn Cup #2 viscosity of 25-28 seconds.

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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Applying – Apply Chemlok 6100 adhesive by brush, dip, spray or any method that gives a uniform coating and avoids excessive runs or tears.

For optimum adhesion and environmental resistance, the dry film thickness of Chemlok 6100 adhesive should be 12.7-25.4 micron (0.5-1.0 mil). Where minimum environmental resistance is required, film thickness in the lower range can be used on easy-to-bond rubber compounds. Thicker films may be necessary on certain hard-to-bond rubber compounds and where maximum environmental resistance is required.

Curing – Chemlok 6100 adhesive cures during the rubber vulcanization process.

Cleanup – Use xylene, toluene or ketones to clean up Chemlok 6100 adhesive.

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.