

Chemlok® 205A Primer

Description

LORD Chemlok® 205A primer is designed for use under Chemlok covercoat adhesives to bond a wide variety of vulcanized and unvulcanized rubber compounds to metals and other rigid substrates. Chemlok 205A, a modification of Chemlok 205 adhesive primer, is composed of a mixture of polymers, organic compounds and mineral fillers dissolved or dispersed in a predominantly ketone solvent system.

Chemlok 205A primer is also an excellent one-coat adhesive for bonding some nitrile rubber compounds.

Features and Benefits

Versatile – can be used as a primer under a wide variety of Chemlok covercoat adhesives such as the Chemlok 220 series, Chemlok 230 series or Chemlok 250 series adhesives.

Environmentally Friendly – dilutable with aromatic solvents, reducing the number of solvents in plant inventory.

Easy to Apply – applies easily by brush, dip, spray or roller coat methods; suitable for existing production lines.

Durable – provides rubber tearing bonds and outstanding environmental resistance when used in combination with Chemlok covercoat adhesives.

Convenient – requires only a single coat application to bond some nitrile rubber compounds to rigid substrates during vulcanization.

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.

Typical Properties*

Appearance	Gray Liquid
Viscosity	
cps @ 25°C (77°F)	85-165
Brookfield LVT	
Spindle 2, 30 rpm	
seconds	20-40
Zahn Cup #2	
Density	
kg/m ³	910.7-970.6
(lb/gal)	(7.6-8.1)
Solids Content by Weight, %	22-26
Flash Point (Seta), °C (°F)	16 (61)
Solvents	Methyl Isobutyl Ketone (MIBK), Methyl Ethyl Ketone (MEK), Propylene Glycol Monomethyl Ether

*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 Preparation of Substrates for Bonding data sheet. Handle clean metal surfaces with clean gloves to avoid contamination with skin oils.

Apply Chemlok 205A primer to stainless steel, aluminum, brass or other nonferrous substrates within one-half hour after cleaning. For ferrous substrates such as steel, a longer layover can be tolerated if no rust is formed.

Mixing – Thoroughly stir Chemlok 205A primer before using, and agitate sufficiently during use to keep dispersed solids uniformly suspended. Use an air-driven or other explosion-proof mixer on the agitator contained in an agitator drum or on other smaller packages.

Chemlok 205A primer is normally used full strength for brush, dip and roller coat applications. For spray application, dilute primer to Zahn Cup #2 viscosity of 18-20 seconds. Chemlok 205A primer may be diluted with ketone-type solvents such as MEK and MIBK or with aromatic solvents such as toluene or xylene. The diluent must be slowly added to the primer while stirring. Careful attention should be given to agitation since dilution will accelerate settling. Refer to the Chemlok Application Guide for further information.

Applying – Apply primer by brush, dip, roller coat, spray or any method that gives a uniform coating and avoids excessive runs or tears. For optimum adhesion, dry film thickness of Chemlok 205A primer should be 5.1-10.2 micron (0.2-0.4 mil).

Drying/Curing – Thoroughly dry parts coated with Chemlok 205A primer before applying the covercoat adhesive. This will take approximately 30-60 minutes at room temperature. It is best to use temperatures of 65-93°C (150-200°F) and abundant circulating air; however, forced air drying is possible at temperatures up to 149°C (300°F) for short periods of time. Maximum air flow at minimum temperatures will give the best results.

Dried films of Chemlok 205A primer are non-tacky; therefore, coated parts may be piled into tote pans for subsequent processing. Wear clean gloves when handling coated parts and cover the tote pans to prevent contamination by dirt, grease, oil, etc. If coated parts are properly protected, they can be stored for short periods before applying covercoat or bonding.

Chemlok 205A primer can be used to bond nitrile rubber by compression, transfer, injection or other molding procedures used to make bonded assemblies.

Cleanup – Use MEK to clean primer before heat is applied. Remove cured primer by mechanical abrasion methods.

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.

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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.

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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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LORD Corporation
World Headquarters

111 Lord Drive
Cary, NC 27511-7923
USA

Customer Support Center

+1 877 ASK LORD (275 5673)

www.lord.com