Chemlok® 225X Adhesive

Description

LORD Chemlok® 225X adhesive is a general purpose covercoat adhesive designed for use over Chemlok 205 primer. This adhesive system will bond a wide variety of uncured elastomers such as natural rubber (NR), neoprene, styrene-butadiene (SBR), nitrile (NBR), polyisoprene (IR) and polybutadiene (BR) to various metals and other rigid substrates during vulcanization of the elastomer. It is composed of a mixture of dissolved organic polymers and dispersed fillers in a xylene solvent system.

Chemlok 225X adhesive also has excellent adhesion to soft NR compounds with semi-EV cure systems.

Features and Benefits

Versatile – bonds a variety of elastomers and metals when used in combination with Chemlok 205 primer.

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

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

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.

Typical Properties*

Appearance	Black Liquid
Viscosity	
cps @ 25°C (77°F) Brookfield LVT Spindle 2, 30 rpm	50-200
seconds Zahn Cup #2	25-70
Density	
kg/m^3	970.6-1018.5
(lb/gal)	(8.1-8.5)
Solids Content by Weight, %	25-29
Flash Point (Seta), °C (°F)	27 (81)
Solvents	Xylene

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

LORD
Ask Us How™

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 the Chemlok 205 primer to thoroughly dry before applying Chemlok 225X adhesive. For further details on the use of Chemlok 205 primer, refer to the Chemlok 205 primer data sheet.

Mixing – Thoroughly stir Chemlok 225X adhesive before applying adhesive over the Chemlok 205 primer. Agitate sufficiently during use to keep dispersed solids uniformly suspended. Mix drums for at least 8 hours at 30-60 rpm before using. Use an air-driven or other explosion-proof mixer on the agitator contained in an agitator drum or on other smaller packages.

Applying – Apply Chemlok 225X adhesive by brush, dip or spray methods. Regardless of application method, dry film thickness of Chemlok 225X adhesive should be 15.2-20.3 micron (0.6-0.8 mil) for optimum adhesion and environmental resistance.

- Brushing
  Apply full strength.
- Dipping
  Use full strength or dilute adhesive with 5-10% xylene or toluene.
- Spraying
  Dilute adhesive with 25-50% xylene or toluene.

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 times may 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. For coated parts, moderate drying temperatures of 82-93°C (180-200°F) should be used. Maximum air flow at minimum temperatures will give the best results.

Dried films of Chemlok 225X adhesive are non-tacky; therefore, coated parts can be piled into tote pans for subsequent processing. Wear clean gloves when handling coated parts and cover tote pans to prevent contamination by dirt, dust, grease, oil, etc. If coated parts are properly protected, moderate layover times between adhesive application and bonding usually have no adverse effect on the bond.

Although the hot tear strength of Chemlok 205 primer and Chemlok 225X adhesive is excellent, care should still be used when removing parts from the mold. Bonds formed with Chemlok 205 primer and Chemlok 225X adhesive are resistant to many adverse environmental conditions. Electroplating or anodizing of metal parts after fabrication will not affect bond strength. However, bonded assemblies should not be treated with ketone based paints or solutions as bond strength may be weakened.

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 six months 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.

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.

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

Customer Support Center (in United States & Canada)
+1 877 ASK LORD (275 5673)

www.lord.com

For a listing of our worldwide locations, visit LORD.com/locations.

LORD
Ask Us How™