Chemlok® 6125 Adhesive

Description

LORD Chemlok® 6125 adhesive is a covercoat adhesive designed for use over Chemlok 205 primer. This adhesive system will bond uncured elastomers to metals and other rigid substrates during vulcanization of the elastomer. 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.

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

Features and Benefits

Versatile – when used in combination with Chemlok 205 primer, bonds a wide variety of rubbers such as natural rubber, SBR, neoprene, polyisoprene and polybutadiene to various metals and other rigid substrates.

Environmentally Recommended – formulated without heavy metals.

Excellent Appearance – provides a continuous film appearance.

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.
- 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	70 - 200
seconds @ 25°C (77°F) Zahn Cup #2	41
Density	
kg/m^3	970.0 - 1010.0
(lb/gal)	(8.1 - 8.4)
Solids Content by Weight, %	23 - 27
Flash Point (Seta), °C (°F)	27 (81)
Solvents	Xylene

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

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For further detailed information on surface preparation of specific substrates, refer to Chemlok Adhesive application guide. Handle clean metal surfaces with clean gloves to avoid contamination with skin oils.

For most consistent bonding results, apply the Chemlok 6125 adhesive to Chemlok 205 primed stainless steel, aluminum, brass or other nonferrous substrates. Allow primer to thoroughly dry before applying Chemlok 6125 adhesive. For further details on the use of Chemlok 205 primer, refer to the Chemlok 205 primer data sheet.

Mixing – Thoroughly stir Chemlok 6125 adhesive before applying adhesive over primer. Agitate sufficiently during use to keep dispersed solids uniformly suspended.

Depending on container, use the following recommended mixing method and duration:

1/2 pint	Hand stir, paint shaker 5-10 minutes
1-5 gallon	Hand stir and air powered mixer 15-60 minutes
55 gallon	Hand crank and air motor agitator 8 hours-new drum; continuous-opened drum

Applying – Apply Chemlok 6125 adhesive by spray, dip, brush or roll coat methods. Chemlok 6125 adhesive is normally used full strength for brush, roll coat and dip application. For spray application, dilute adhesive with xylene or toluene to a Zahn Cup #2 viscosity of 25-28 seconds. Dilution of 25-50% is typical.

Optimal film thickness for a particular bonded part is dependent on the rubber formulation and the level of adhesion required. Regardless of application method, use the following recommended dry film thicknesses:

Chemlok 205	5.1-10.5 micron (0.2-0.4 mil)
Chemlok 6125	12.7-25.4 micron (0.5-1.0 mil)

Drying/Curing – Allow applied adhesive to air-dry for 30-60 minutes at 15-32°C (60-90°F). If humidity is high, drying times may take longer. Drying time can be shortened by either preheating the metal inserts or oven drying after application. Metal parts may be preheated to a maximum of 60°C (140°F) prior to adhesive application. If dry spray or cobwebbing occurs, lower the metal preheat temperature. For coated parts, moderate drying temperatures should be used, but temperatures as high as 93°C (200°F) can be used for short periods of time. Maximum air flow at minimum temperatures will give the best results.

Dried films of Chemlok 6125 adhesive are non-tacky; therefore, coated parts can be piled into tote pans for subsequent processing. Wear clean gloves when handling cemented parts and cover the tote pans to prevent contamination by dirt, grease, oil, etc. Limit layover times to less than 30 days.

Chemlok 6125 adhesive cures during the rubber vulcanization process.

Cleanup – Clean liquid spills with rags. Remove dried material from surfaces with spark-proof equipment and dilution solvents.

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.

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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