

Chemlok® 5150 Adhesive

Description

LORD Chemlok® 5150 adhesive is a solvent-based adhesive used to bond uncured fluoroelastomers to metal. It can also be used to bond fluoroelastomers with an incorporated cure system to mechanically prepared metals as well as phosphatized metals, like those used in the manufacture of dynamic seals. Chemlok 5150 adhesive also adheres fluoroelastomers to stainless steel, aluminum and brass.

Features and Benefits

Excellent Appearance – provides good cosmetics; resists staining or discoloring of non-black elastomers.

Versatile – bonds a wide variety of fluoroelastomers and metals; accommodates a wide variety of postcures and is tolerant of compounding variables.

Easy to Apply – low viscosity allows for easy application.

Fluid Resistant – provides good resistance to Reference Fuel C, No. 2 diesel and other fluids.

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	Colorless to Pale Yellow Liquid
Density	
kg/m ³	780.0-830.0
(lb/gal)	(6.5-6.9)
Solids Content by Weight, %	4.9-5.8
Flash Point, °C (°F)	6 (43)
Solvents	Methanol

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

LORD TECHNICAL DATA

Mixing – No agitation is required before or during use. If dilution is needed, satisfactory results are usually obtained with dilutions of 1:1 using methanol or ethanol. Dilutions of 10 parts alcohol to 1 part adhesive are possible.

Applying – Apply Chemlok 5150 adhesive by dip, tumble spray or regular spray methods.

Drying/Curing – Allow adhesive to air-dry, maintaining forced air drying temperatures below 93°C (200°F).

Chemlok 5150 adhesive cures at 165-188°C (330-370°F). Post cures of 12-24 hours at 204-232°C (400-450°F) can be used. For exceptionally thick parts, use a step postcure beginning at 149°C (300°F), and increase the temperature in 10°C (50°F) increments at two hour intervals until a temperature of 204-232°C (400-450°F) is achieved.

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.

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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