

Chemlok® 6254 Adhesive

Description

LORD Chemlok® 6254 adhesive is a one-coat adhesive used to bond a variety of vulcanized and 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.

A single coat of Chemlok 6254 adhesive 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 6254 adhesive provides excellent adhesion and corrosion resistance when used with mechanically or chemically treated cold rolled steel or aluminum. For maximum protection or when environmental conditions are severe, Chemlok 6254 adhesive can be used over Chemlok 205 or 207 primer.

Features and Benefits

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.

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.

Typical Properties*

Appearance	Black Liquid
Viscosity, cps @ 25°C (77°F) Brookfield LVT Spindle 2, 30 rpm	150 - 450
Density kg/m ³ (lb/gal)	980.0 - 1020.0 (8.2 - 8.5)
Solids Content by Weight, %	25 - 30
Flash Point (Seta), °C (°F)	7 (44)
Solvents	Toluene, Xylene

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

LORD TECHNICAL DATA

- **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.

Mixing – Special attention should be given to mixing the adhesive. Agitation methods and times will vary depending on container size and time in inventory. The following guidelines must be followed to ensure a homogenous mix and uniform appearance.

- Quart container – hand stirred with a paint stick or placed on a paint shaker for 15-30 minutes.
- Gallon container – hand stirred with a paint stick, placed on a paint shaker, or agitated with an air-driven mixer for 20-30 minutes.
- 5-Gallon pail – first hand stirred to loosen any sediment followed by agitation with an air-driven mixer for 45-60 minutes.

- 55-Gallon drum – hand cranked initially to loosen any sediment followed by agitation with an air-driven motor for 8 hours at 40-60 rpm. Drum roller can also be used to loosen any sediment by rolling at 30 rpm for 2 hours followed by agitation with an air-driven mixer for 4 hours at 40-60 rpm.

Evaluate all mixed containers for any remaining sediment prior to applying adhesive. Repeat recommended mixing procedure if sediment is found. If dilution is needed, use xylene or toluene.

Recommended Mixing Procedures		
Container	Mixing Method	Mixing Time
Quart (1.1 L)	Hand stir	10-15 minutes
	Paint Shaker	10-15 minutes
Gallon (3.8 L)	Hand stir	20-30 minutes
	Paint Shaker	20-30 minutes
	Air-driven mixer	20-30 minutes
5 Gallon (18.9 L)	Hand stir and air-driven mixer	45-60 minutes
55 Gallon (208.2 L)	Hand crank and air-driven mixer	8 hours
	Roller and air-driven mixer	2 hours (roller) 4 hours (mixer)

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

- **Brushing/Dipping**
Use full strength.
- **Spraying**
Dilute adhesive with xylene to a Zahn Cup #2 viscosity of approximately 26-28 seconds.

For optimum adhesion and environmental resistance, the dry film thickness of Chemlok 6254 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. For bonding cured rubber, dry film thickness of 25.4-50.8 micron (1.0-2.0 mil) is normally used.

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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 Safety Data Sheet (SDS) 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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