

Chemlok® 855 Adhesive

Description

LORD Chemlok® 855 adhesive is a general purpose, one-coat aqueous adhesive used to bond a wide variety of vulcanized and unvulcanized rubber compounds to metal.

A single coat of Chemlok 855 adhesive will bond compounds based on natural rubber (NR), polyisoprene (IR), styrene-butadiene (SBR), polybutadiene (BR), polychloroprene (CR) and nitrile (NBR) polymers to a variety of metals such as carbon and alloy steels, stainless steel and aluminum during the vulcanization process.

Chemlok 855 adhesive has been formulated using water as the carrier system and does not contain co-solvents.

Features and Benefits

Versatile – serves as a post vulcanization (cured rubber) bonding agent capable of bonding a wide variety of vulcanized rubber compounds.

Convenient – can be applied without dilution; requires only a single coat for most applications, reducing labor, inventory and shipping costs.

Environmentally Recommended – contains no volatile organic compounds (VOC), eliminating hazardous pollutants.

Durable – provides excellent dry film characteristics, resulting in a chip-resistant film.

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	Green/Black Liquid
Viscosity, cps @ 25°C (77°F) Brookfield LVT Spindle 2, 30 rpm	20-200
Density kg/m ³ (lb/gal)	1150.3-1246.2 (9.6-10.4)
Solids Content by Weight, %	43-46
Flash Point (Seta), °C (°F)	>93 (>200)
Solvents	Deionized Water
pH	6-8

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

LORD TECHNICAL DATA

- **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 – Thoroughly mix Chemlok 855 adhesive before use, and agitate sufficiently during use to keep dispersed solids uniformly suspended.

Applying – Apply adhesive by spray, dip or brush methods. For best results, preheat the metal parts to 49-71°C (120-160°F) in a recirculating forced air oven prior to application.

For optimum adhesion and environmental resistance, the dry film thickness of Chemlok 855 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 within this range may be necessary on certain hard-to-bond rubber compounds where maximum environmental resistance is required or for post vulcanization bonding.

Drying – Allow applied adhesive to air-dry for approximately 30 minutes at room temperature. Allow longer dry times during humid conditions.

Shelf Life/Storage

Shelf life is three months from date of shipment when stored in a well ventilated area at 21-27°C (70-80°F) in original, unopened container. Do not freeze product.

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.

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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