

Chemlok® 402X-HS Adhesive

Description

LORD Chemlok® 402X-HS adhesive is a solvent-based, one-coat adhesive designed for bonding textiles to a wide variety of unvulcanized elastomers. Chemlok 402X-HS adhesive is an all-xylene version of Chemlok 402 adhesive. It is composed of a mixture of polymers, organic compounds and fillers dissolved or dispersed in an organic solvent system.

Chemlok 402X-HS adhesive is used in the production of hoses, belts, diaphragms and other textile-reinforced rubber products. Chemlok 402X-HS adhesive can also be used as an additive to tie cements, primarily as a replacement for isocyanates that are widely used in rubber/textile bonding.

A single coat of Chemlok 402X-HS adhesive will bond compounds based on a natural rubber (NR), polyisoprene (IR), styrene-butadiene (SBR), polybutadiene (BR), polychloroprene (CR), nitrile (NBR) and butyl (IIR) to polyester, polyamide, cotton, rayon, and polyaramid. When dried, Chemlok 402X-HS adhesive is tack-free.

Features and Benefits

Non-chlorinated Solvent System – suitable for solvent incineration, saving cost of recovery equipment.

Versatile – bonds a variety of elastomers to a wide variety of textiles during vulcanization of the elastomer.

Excellent Adhesion – adheres well to RFL-treated fabric or cord, giving excellent adhesion to these materials. Chemlok 402X-HS adhesive treated fabric or cord can be bonded immediately following solvent evaporation.

Convenient – requires only a single coat for most applications, reducing labor, solvent usage, inventory and shipping costs.

Application

Mixing – Thoroughly stir Chemlok 402X-HS adhesive before using and agitate sufficiently during use to keep dispersed solids uniformly suspended. If dilution is needed, use xylene or toluene as diluents.

Typical Properties*

Appearance	Black Liquid
Viscosity, cps @ 25°C (77°F) Brookfield LVT Spindle 2, 30 rpm	600-1100
Density kg/m ³ (lb/gal)	916.7-970.6 (7.65-8.1)
Solids Content by Weight, %	23-26
Flash Point (Seta), °C (°F)	25 (77)
Solvents	Xylene

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

LORD TECHNICAL DATA

Applying – Apply Chemlok 402X-HS adhesive by dip, brush or spray methods. For most applications, 6-10% dry weight pickup is necessary. To optimize both adhesion and flexibility, apply Chemlok 402X-HS adhesive to the fabric at a level just high enough to meet adhesion specifications.

For bonding specialty elastomers such as EPDM and epichlorohydrin, Chemlok 402X-HS adhesive should be topcoated with another specialty adhesive designed for that specific polymer. Topcoating in this manner will usually yield substrate-tearing bonds.

Drying/Curing – Allow the applied adhesive to dry until the coated fabric is tack-free and visual examination of the film has shown that all solvent has evaporated. This will take approximately 30-60 minutes at room temperature. Drying times can be shortened by oven drying for 10-15 minutes at 65°C (150°F). Higher temperatures may be used to reduce drying times, but care must be taken to ensure that excessive heat does not cause the adhesive to react.

Shelf Life/Storage

Shelf life is six months from date of shipment when stored in a well ventilated area at 21-27°C (70-80°F) in original, unopened container. Chemlok 402X-HS adhesive is moisture sensitive. Do not store container outside. During summer months, minimize exposure of the adhesive to moisture by preparing only what is needed for several hours of use.

Once opened, fit the 55-gallon drum of adhesive with desiccant tubes if anticipated contents usage exceeds two weeks. Information on desiccant tubes can be obtained from your LORD Technical Service Representative.

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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