



Chemlok® 402 Single-Pack Elastomer-to-Textile Adhesive

Description

Chemlok® 402 is a solvent based adhesive for bonding textiles to a wide variety of unvulcanized elastomers without the use of isocyanate dips or pretreatments. Chemlok 402 adhesive is used in the production of hoses, V-belts, conveyor belts, diaphragms, air ride suspensions, and other textile reinforced rubber products. Chemlok 402 adhesive can be used as an additive to tie cements (primarily to replace isocyanates that are widely used in rubber/textile bonding).

A single coat of Chemlok 402 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 402 adhesive is tack-free.

Features and Benefits

Versatility - bonds a variety of rubber compounds to a wide variety of textiles during vulcanization. Chemlok 402 adhesive adheres well to RFL treated fabric or cord, giving excellent adhesion to these materials. Chemlok 402 adhesive treated fabric or cord can be bonded immediately following solvent evaporation.

One Coat Application - reduces labor, inventory and shipping costs. Fewer solvents are required with the one coat systems.

Good Stability - provides a shelf life of at least six months under proper storage conditions.

Typical Properties* of Chemlok 402 Adhesive

Composition	A mixture of polymers, organic compounds and fillers dissolved or dispersed in an organic solvent system.
Appearance	Black liquid
Non-Volatile Content by weight	13.5 - 16.5%
Density kgs/m ³ lbs/gal	1186.3 - 1246.2 9.9 - 10.4
Viscosity, cps Brookfield LVT Spindle #2, 30 rpm @ 25°C (77°F)	100 - 350
Zahn No. 2	50 seconds
Flash Point (Seta)	> 93°C (> 200°F)
Solvents	Xylene, trichloroethylene
Shelf Life	Six months from date of shipment, unopened container, 21°C - 27°C (70°F - 80°F) storage temperature.

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

Mixing

Thoroughly stir Chemlok 402 adhesive before use and intermittently during use.

Application

Apply Chemlok 402 adhesive by dip, spray, or brush methods. The coated fabric should dry tack-free. Dry times of 30 - 60 minutes at 21°C (70°F) are usually sufficient, depending upon air circulation.

A typical elevated temperature dry cycle which gives good performance is 10-15 minutes at 66°C (150°F). Higher temperatures yielding shorter times may be used, but care must be taken to ensure that excessive heat does not cause the adhesive to react.

For most applications, 10-20% dry weight pickup is necessary. As pickup is reduced, flexibility is increased. However, adhesion may decrease depending on the elastomer. To optimize both adhesion and flexibility, Apply Chemlok 402 adhesive to the fabric at a level just high enough to meet adhesion specifications.

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

Clean Up

Use solvents such as xylene and MEK before applying heat.

Packaging

- 1/2 Pint (0.24 Liter)
- 1 Gallon Container (3.8 Liter)
- 5 Gallon Pail (19 Liter)
- 55 Gallon Drum (208 Liter)

Storage

Chemlok 402 adhesive is moisture sensitive. Therefore, do not store containers outside. During summer months, minimize exposure of the adhesive to moisture by preparing the amount needed for several hours of use. Limit coated textile layover to 30 days or less depending upon humidity.

Once opened, 55 gallon drums (208 liter) of Chemlok 402 adhesive should be fitted with desiccant tubes, if the anticipated contents usage will exceed two weeks. Information on desiccant tubes can be obtained from your Lord technical service representative.

Cautionary Information

Before using this or any other Lord product refer to the Material Safety Data Sheet (MSDS) and label for safe use and handling.

Values stated in this bulletin 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 Service Department.

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