

# Chemlok® 258XN Adhesive

## Description

LORD Chemlok® 258XN adhesive is a non-conductive, one-coat adhesive that will bond unvulcanized rubber compounds to metal or other dissimilar rubber compounds. It is composed of a mixture of polymers, organic compounds and mineral fillers dissolved or dispersed in an organic solvent system.

Chemlok 258XN adhesive is ideal of use in electrical component applications. A single coat of Chemlok 258XN 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 metals. These metals include carbon and alloy steels, stainless steel, aluminum, copper and copper alloys, magnesium and zinc, as well as a variety of plastics, epoxy and vinyl ester.

## Features and Benefits

**Non-Conductive** – formulated without carbon black for use in electrical applications.

**Excellent Adhesion** – provides superior adhesive performance without ozone depleting solvents.

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

## Application

**Surface Preparation** – Thoroughly clean metal surfaces prior to primer 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	Brown Liquid
Viscosity, cps @ 25°C (77°F) Brookfield LVT Spindle 2, 30 rpm	150-600
Density kg/m <sup>3</sup> (lb/gal)	994.5-1030.5 (8.3-8.6)
Solids Content by Weight, %	22.5-26.5
Flash Point (Seta), °C (°F)	29 (85)
Solvents	Xylene, Monochlorotoluene

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

# LORD TECHNICAL DATA

**Mixing** – Thoroughly stir Chemlok 258XN adhesive before use, and agitate sufficiently during use to keep dispersed solids uniformly suspended. Mix drums 8 hours at 30-60 rpm before using.

Chemlok 258XN adhesive is used full strength for brush applications. If application method requires dilution, use xylene or toluene as diluents.

**Applying** – Apply Chemlok 258XN adhesive by brush, dip, spray method.

When using Chemlok 258XN adhesive as a one-coat adhesive, the dry film thickness should be maintained at 20.3-25.4 micron (0.8-1.0 mil). When used as a covercoat over a primer, the dry film thickness of Chemlok 258XN adhesive should be 10.2-17.8 micron (0.4-0.7 mil).

**Drying/Curing** – Allow the applied adhesive to dry until visual examination of the film has shown that all solvent has evaporated. This will take approximately 30-60 minutes at room temperature. Drying times may be shortened by either preheating the metal inserts or oven drying after application. Metal parts may be preheated to a maximum of 65°C (150°F) prior to adhesive application. For coated parts, moderate drying temperatures should be used, but temperatures as high as 149°C (300°F) may be used for very short periods of time. Maximum air flow at minimum temperatures will give the best results.

Dried films of Chemlok 258XN adhesive are non-tacky; therefore, coated parts can be piled into tote pans for subsequent processing. Wear clean gloves when handling coated parts and cover tote pans to prevent contamination by dirt, dust, grease, oil, etc. If coated parts are properly protected, long layover times between adhesive application and bonding usually have no adverse effect on the bond.

Chemlok 258XN adhesive can be used in compression, transfer and injection molding procedures. Ideal bonding conditions involve a minimum amount of time between loading the adhesive coated parts and elastomer vulcanization. However, Chemlok 258XN adhesive will resist moderate prebake times without affecting bond performance.

## 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.

## 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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