

# Chemlok<sup>®</sup>

## Chemlok<sup>®</sup> 236A Rubber-to-Metal Adhesive

### Description

Chemlok<sup>®</sup> 236A is a general purpose, covercoat adhesive. It is used to bond a wide variety of vulcanized or unvulcanized rubber compounds to Chemlok 205 primed metals or other rigid substrates.

Chemlok 236A adhesive is particularly useful in bonding compounds based on butyl and EPDM. It will also bond most compounds based on natural rubber (NR), polyisoprene (IR), styrene-butadiene (SBR), polybutadiene (BR), polychloroprene (CR), and nitrile (NBR) polymers.

### Features and Benefits

**Excellent Performance** - bonds nonpolar rubber compounds based on butyl and EPDM.

**Convenience** - allows applications by brush, dip, roller, or spray methods.

**Versatile** - bonds a wide variety of cured and uncured rubber compounds.

### Typical Properties\* of Chemlok 236A Adhesive

Composition	A mixture of polymers, organic compounds and mineral fillers dissolved or dispersed in an organic solvent system.
Color	Black
Viscosity, cps Brookfield LVT, Spindle #2 @ 30 rpm	300 - 700
G.E. Zahn Cup #3	50 seconds
Non-volatile Content by Weight	16 - 19%
by Volume	13%
Density kgs/m <sup>3</sup>	996-1032
lbs/gal	8.3 - 8.6
Flash Point (Seta)	22°C (71°F)
Diluents	Toluene, xylene, or chlorinated solvents
Solvents	Xylene, trichloroethylene
Shelf Life	One year 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.

product information

## Surface Preparation

Thoroughly clean metal surfaces to ensure consistent bonding results. Remove protective oils, cutting oils, and greases, by solvent degreasing or alkaline cleaning. Remove rust, scale or oxide coatings by suitable mechanical or chemical cleaning methods.

Grit blasting is the most widely used method of mechanical cleaning; but machining, grinding or wire brushing may be used. Steel grit is used for blast cleaning of steel, cast iron, or other ferrous metals. Aluminum oxide, sand or other nonferrous grits are used for blast cleaning of stainless steel, aluminum, brass, zinc, or other nonferrous metals.

Chemical cleaning or pretreatment of the metal will remove rust, scale or oxide coatings. 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 in cases where tight size tolerance must be maintained. Phosphatizing is a commonly used chemical treatment for steel, while chromate conversion coating is commonly used for aluminum.

For further details on surface preparation of specific substrates, refer to Bulletin No. 7101 "Preparation of Substrates for Bonding."

## Mixing

Thoroughly stir Chemlok 236A adhesive before using, and agitate sufficiently during use to keep dispersed solids uniformly suspended.

## Application

Apply Chemlok 236A adhesive by brush, dip, spray, or by any of the methods normally used to apply Chemlok adhesives. If the application methods require dilution of Chemlok 236A adhesive, use xylene, toluene, or chlorinated solvents as diluents. Xylene is the suggested diluent for spray application; toluene or chlorinated solvents are suggested for dip or brush application.

For optimum bond and environmental resistance, the dry film thickness of Chemlok 236A adhesive should be 0.4 - 1.0 mils (10.2 - 25.4 microns). Thinner films may be used on easy-to-bond stocks where minimum

environmental resistance is required. 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 thicknesses of 1.0 - 2.0 mils (25.4 - 50.8 microns) are used. Chemlok 236A adhesive can be applied to either the cured rubber or Chemlok 205 primed metal.

Post-vulcanization bonds are obtained using bond-line temperature values of 20 - 40 minutes at 149°C - 177°C (300°F - 350°F). Maintain 5-10% compression of the vulcanized rubber section during cure and cool down to ensure intimate contact at the rubber/metal interface. Light rubber processing oils are often used to assist in the assembly of the compressed parts prior to bonding. For further details on post-vulcanization bonding, refer to Bulletin No. 2046, "Post-Vulcanization Bonding Guide."

## Drying

Allow the adhesive to dry until visual examination of the film has shown that all solvent has evaporated. This will be accomplished in 30 to 60 minutes at room temperature.

Drying times can be shortened by using hot air drying ovens or tunnels. Moderate drying temperatures will be most satisfactory, but temperatures as high as 149°C (300°F) can be used for short periods of time. Maximum airflow at minimum temperatures will give the best results. Metal parts can be preheated to a maximum of 65°C (150°F).

## Clean Up

Use solvents such as xylene and MEK before applying heat. Once cured, use mechanical methods for clean up.

## Subsequent Processing

Dried films of Chemlok 236A adhesive are non-tacky; therefore, coated parts can be piled into tote pans for subsequent processing. The usual handling precautions are necessary, however, to prevent contamination of coated parts by dirt, dust, grease, oil, etc. Wear clean gloves when handling coated parts.

Long layover times between adhesive application and bonding usually have no adverse affect on the bond, provided the coated parts are covered to prevent contamination.

## Packaging

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

## Storage

Store unopened containers at 4°C - 32°C (40°F - 90°F), and preferably at 21°C - 27°C (70°F - 80°F).

## 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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