

Chemosil® 211 Primer and/or Bonding Agent

Description

LORD Chemosil® 211 primer is a heat-activated bonding agent designed for use as a substrate primer under other Chemosil covercoat bonding agents, or as a one-coat bonding agent for bonding unvulcanized nitrile elastomer compounds. It is composed of a mixture of polymers, organic compounds and mineral fillers dissolved or dispersed in an organic solvent system.

Features and Benefits

Versatile – can be used as a primer under a wide variety of Chemosil covercoat bonding agents.

Convenient – can be used as a one-coat bonding agent to bond unvulcanized nitrile elastomer compounds to metal and plastics.

Easy to Apply – applies easily by spray, dip, brush or roll coat methods.

Durable – provides rubber tearing bonds and excellent environmental resistance when used in combination with Chemosil covercoat bonding agents.

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.
- **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.

Typical Properties*

Appearance	Gray Liquid
Viscosity, cps @ 25°C (77°F) Brookfield LVT Spindle 2, 30 rpm	90-170
Density @ 20°C (68°F) g/cm ³ (lb/gal)	0.92-0.96 (7.7-8.0)
Solids Content by Weight, % Dry residue, 30 min @ 130°C (266°F)	22-26
Flash Point, °C (°F) Pensky-Martens	17 (62)
Solvents	Methyl Isobutyl Ketone (MIBK), Xylene

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

LORD TECHNICAL DATA

For further detailed information on surface preparation of specific substrates, refer to Chemlok/Chemosil Adhesives application guide. Handle clean metal surfaces with clean gloves to avoid contamination with skin oils.

Mixing – Thoroughly stir Chemosil 211 primer before use, and agitate sufficiently during use to keep dispersed solids uniformly suspended.

Chemosil 211 primer may be diluted with ketone-type solvents such as MEK and MIBK without adverse effects on handling and application. The diluent must be slowly added to the primer while stirring. Careful attention should be given to agitation since dilution will accelerate settling. Refer to the Chemlok/Chemosil Adhesives application guide for further information.

Applying – Apply primer by brush, roll coat, dip or spray methods. Avoid applying thick coats which result in poor drying and may lead to film displacement during molding.

- Brushing/Roll Coating
Apply full strength.
- Dipping
Dilute primer with up to 20% of MIBK or MEK.
- Spraying
Dilute primer to a viscosity of 12-14 seconds using 40-60% MIBK or MEK.

Regardless of application method, recommended dry film thickness of Chemosil 211 primer is 8-12 micron (0.3-0.5 mil).

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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Drying/Curing – Thoroughly dry parts coated with Chemosil 211 primer before applying the covercoat bonding agent. This will take at least 30 minutes at room temperature. Drying time can be shortened by using hot air drying ovens or tunnels up to 90°C (194°F).

Dried films of Chemosil 211 primer are non-tacky; therefore, coated parts can be stacked and stored in a dry, grease-free environment for up to three months without affecting bond performance.

Cleanup – Use MIBK or MEK for clean up.

Shelf Life/Storage

Shelf life is one year from date of manufacture when stored below 25°C (77°F) in original, unopened container.

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.