ADHÉSIF À CAOUTCHOUC

05/25/2012

Air Quality Data Sheet

The composition given below is the composition of the product AS FORMULATED. Variations may occur on individual batches because of adjustments made during production.

CHEMLOK 205

Product Density, LBGL	7.85 lb/gal
Non-Volatile by Weight	24.57 %
Non-Volatile by Volume	12.84 %
Volatile by Weight	75.42 %
Volatile by Volume	87.16 %

Density of Organic Solvent Blend

LBGL	6.73 lb/gal

Density of Solids

LBGL	14.89 lb/gal

Volatile Organic Compounds

Grams VOC/Liter	703.00 g/l
Pounds VOC/Gallon	5.87 lb/gal
Grams VOC/Liter (Method 24 or other EPA approved method)	726.00 g/l
Pounds VOC/Gallon (Method 24 or other EPA approved method)	6.06 lb/gal

HAP Content

LB HAP/GAL Solid	44.20
Kg HAP/L Solid	5.30
LB HAP/LB Solid	2.94
Kg HAP/Kg Solid	2.94

C.A.S. Number	Solvent Description	HAP	Percent of Volatile by Weight	Percent of Volatile by Volume	Formula Percent by Weight	Formula Percent by Volume
108-10-1	Methyl isobutyl ketone	X	78.89	79.78	59.50	69.54
1330-20-7	Xylene	X	13.38	12.90	10.09	11.24
100-41-4	Ethyl benzene	X	3.16	2.95	2.38	2.57
78-93-3	Methyl ethyl ketone		1.98	1.99	1.49	1.73
107-98-2	Propylene glycol monomethylether		1.32	1.17	1.00	1.02
64-17-5	Ethyl alcohol		0.72	0.74	0.54	0.64
108-88-3	Toluene	X	0.34	0.32	0.26	0.28
7732-18-5	Water		0.13	0.11	0.10	0.09
50-00-0	Formaldehyde	X	0.07	0.05	0.05	0.04

Chemlok® 205 Primer and/or Adhesive

Description

LORD Chemlok® 205 primer is designed for use under Chemlok covercoat adhesives to bond a wide variety of vulcanized and unvulcanized rubber compounds to metals and other rigid substrates. 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 Chemlok covercoat adhesives such as the Chemlok 220 series, Chemlok 230 series, Chemlok 250 series or Chemlok 6000 series adhesives.

Easy to Apply – applies easily by brush, dip, spray or roll coat methods; suitable for existing production lines.

Durable – provides rubber tearing bonds and excellent environmental resistance when used in combination with Chemlok covercoat adhesives.

Convenient – can be used as a one-coat adhesive to bond some nitrile rubber compounds to rigid substrates during vulcanization.

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.

Typical Properties*

Appearance	Gray Liquid
Viscosity, cps @ 25°C (77°F) Brookfield LVT Spindle 2, 30 rpm	85-105
Density	
kg/m³	910.7-970.6
(lb/gal)	(7.6-8.1)
Solids Content by Weight, %	22-26
Flash Point (Seta), °C (°F)	19 (66)
Solvents	Methyl Isobutyl Ketone (MIBK), Methyl Ethyl Ketone (MEK), Xylene

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

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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.

Apply Chemlok 205 primer to stainless steel, aluminum, brass or other nonferrous substrates within one-half hour after cleaning. For ferrous substrates such as steel, a longer layover can be tolerated if no rust is formed.

Mixing – Thoroughly stir Chemlok 205 primer before use, and agitate sufficiently during use to keep dispersed solids uniformly suspended.

Chemlok 205 primer is normally used full strength for brush, dip and roll coat applications. For spray application, dilute primer to a Zahn Cup #2 viscosity of 18-20 seconds. Chemlok 205 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 Adhesives application guide for further information.

Applying – Apply primer by brush, dip, roll coat, spray or any method that gives a uniform coating and avoids excessive runs or tears.

Normally the dry film thickness of Chemlok 205 primer should be 5.1-10.2 micron (0.2-0.4 mil). When using Chemlok 205 primer over grit blasted substrates, when using it in conjunction with Chemlok 220 series covercoats or when using Chemlok 205 primer as a nitrile adhesive, apply a dry film thickness at the high end of the range. For all other applications (i.e., swaging or smooth substrates), apply Chemlok 205 primer at the low end of the film thickness range.

Drying/Curing – Thoroughly dry parts coated with Chemlok 205 primer before applying the covercoat adhesive. This will take approximately 30-45 minutes at room temperature. It is best to use temperatures of 65-93°C (150-200°F) and abundant circulating air, however, forced air drying is possible at temperatures up to 149°C (300°F) for short periods of time. Maximum air flow at minimum temperatures will give the best results. After parts have dried, apply Chemlok covercoats using similar application methods.

Dried films of Chemlok 205 primer are non-tacky; therefore, coated parts may be piled into tote pans for subsequent processing. Wear clean gloves when handling coated parts and cover the tote pans to prevent contamination by dirt, grease, oil, etc. If coated parts are properly protected, they can be stored for at least one month before applying covercoat or bonding.

Chemlok 205 primer can be used to bond nitrile rubber by compression, transfer, injection or other molding procedures used to make bonded parts. As with other Chemlok adhesives, maximum adhesion is obtained when the rubber has completely cured. Ideal bonding conditions exist when both the adhesive and the rubber cure at the same time. To accomplish this, load the adhesive coated metal parts in the mold and quickly fill the cavity with rubber.

Dry films of Chemlok 205 primer remain firm at molding temperatures. During transfer or injection molding operations, the adhesive shows minimal tendency to wipe or sweep. During multiple-cavity loading, the prebaking begins with the first loaded metal parts. Keep mold loading cycles to a minimum to prevent adhesive and rubber from pre-curing. However, Chemlok 205 primer will resist moderate prebaking times without affecting bond performance. Transfer or injection molds need properly designed runners and sprues, as well as adequate pressures. This prevents rubber pre-curing before the mold cavities are completely filled.

Cleanup – Clean areas with a rag as soon as possible using MEK.

Shelf Life/Storage

Shelf life is one year 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.

LORD provides valuable expertise in adhesives and coatings, vibration and motion control, and magnetically responsive technologies. Our people work in collaboration with our customers to help them increase the value of their products. Innovative and responsive in an ever changing marketplace, we are focused on providing solutions for our customers worldwide. Ask Us How.

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