Technical Information Chemosil 211

Primer And Bonding Agent For NBR Elastomers

Composition

Polymers and heat reactive components in an organic solvent system.

Description:

Chemosil 211 is a heat activated bonding agent, that can be used as a substrate primer for other Chemosil covercoat bonding agents or as a single coat for bonding unvulcanised nitrile elastomer compounds.

Chemosil 211 is an organic solvent based product which, when applied to a suitably prepared substrate, will dry to a hard, non tacky film, resistant to chipping and normal process handling.

Used as a substrate primer Chemosil 211 will provide maximum environmental resistance to the bonded component.

Used as a bonding agent, Chemosil 211 will bond unvulcanised nitrile elastomer compounds to metals and plastics.

Bonding occurs during the process of elastomer vulcanisation.

Specifications:				**Method *)**
Solids content	:	22.0 - 26.0	weight %	970074
Viscosity at manufacturing	:	90 - 170	mPas	950055
Density	:	0.92 - 0.96	g/ml	950014

*) Methods
970074: Determination of Dry Residue, 30 min @ 130°C
950055: Brookfield Viscometer, Model LVT Spindle 2, 30 rpm, @25°C
950014: Determination of Density @ 20°C

Properties:

Appearance : grey liquid

Processing:

A properly prepared substrate surface is essential to achieve consistent elastomer bond performance. All oil, grease and other soluble contamination should be removed by solvent degreasing or alkaline cleaning. Rust, scale and other non soluble contaminants should be removed by mechanical or chemical methods. Grit blasting is the most commonly used mechanical method. A second degreasing stage after the mechanical treatment is strongly recommended to remove residual grease, oil and abraded dusts. Chemical treatments for ferrous substrates usually involve the use of phosphatising agents. Full details of the special chemical treatments required for non ferrous and plastic substrates are given in the information sheet, "*Preparation Of Substrates For Chemosil Bonding"*.

Chemosil 211 contains dispersed solids and must be thoroughly stirred before and at frequent intervals during use. Chemosil 211 can be applied undiluted by brush or roller coating or when diluted by spray or dip techniques.

For a recommended dry film thickness of 8-12 microns the following dilution is recommended:

Brushing/rolling	:	undiluted (or up to 10 % MIBK)
Dipping	:	up to 20 % MIBK or MEK
Spraying	:	40-60 % MIBK or MEK (4 mm cup 12-14 sec., air pressure 3-4 bar, nozzle Ø 1-2 mm, distance ~ 50 cm)

Dilution will accelerate settling, maintain sufficient agitation to ensure product uniformity. A thin uniform coating gives best results. Avoid applying thick coats which can give poor drying and may lead to film displacement (sweep) during moulding. At ambient temperatures (15 to 25°C) allow 15 to 20 minutes drying time after coating. Elevated temperatures (up to 90°C) in hot air ovens or drying tunnels will reduce the drying time required. Chemosil 211 will dry to a hard non tacky film.

Coated components can be stacked or loaded into bins for transport and storage. Clean cotton gloves should be worn when handling coated components. Coated components can be stored for up to 3 months before bonding without adversely affecting the bond performance. Coated components should be protected from dust, moisture and other contamination during storage.

Safety/hazard Information:

See Health and Safety Data Sheet

Emergency telephone number +49 (0) 2433 5270)

Delivery form:

Containers 10/23 kg, drums 175 kg

Shelf life:

At least 12 month in closed containers below 25°C.

The above information and recommendations are based on our knowledge and experience. Due to different materials and conditions of application which are beyond our control we strongly recommend that sufficient tests are carried out in order to ensure that our products are suitable for the intended processes and applications.