



SPECIALTY ADHESIVES

MEGUM™ 5386 Solvent-Based Adhesive

Regional Product Availability

- Europe and Asia
- Other regions on request

Description

- MEGUM 5386 is a general purpose cover coat adhesive, used in combination with a MEGUM or THIXON™ adhesive primer, for bonding rubber compounds to metals and other rigid substrates during vulcanization.
- This product is especially suitable for bonding both difficult to bond compounds and soft compounds.

Product Typical Properties

Property		
Appearance	Black liquid	
Dry solid content (Non-volatile solids by weight)	20.0 - 23.0 %	
Viscosity, Brookfield LV#2 spindle at 30 rpm	250 - 650 mPa.s (cP)	
Density (20°C)	0.94 - 1.00 g/cm ³	
Specific Gravity	0.97	
Weight per gallon	8.1 lbs	
Volume solids (calculated)	13.6 %	
VOC content per gal (calculated)	6.2 lbs	
Dry film density (calculated)	1.53 g/cm ³	
Flash Point (Seta)	26°C / 79°F	

These properties are typical and are not to be used for specification purposes.

Main Features

Composition: MEGUM 5386 consists of reactive polymers and pigments in xylene. It is formulated without reportable levels of lead or other toxic heavy metals.

Elastomers: NR, IR, SBR, BR, EPDM, IIR, CR, NBR etc.

Materials: MEGUM or THIXON adhesive primers are used to adhere to metals such as hot and cold rolled steel, stainless steel, aluminium and brass prior to applying MEGUM 5386. These same primers can be used to adhere to thermoplastics such as polyamides and polyesters.

Molding and Curing: MEGUM 5386 can be used with all common molding and curing methods. Cure temperatures between 130°C and 190°C (265°F and 375°F) are recommended.

Environmental Resistance: MEGUM 5386 in combination with a primer yields bonds that are resistant to high temperatures, boiling water, salt fog and hydraulic fluids.



SPECIALTY ADHESIVES

Directions For Use

Preliminary Surface Preparation

Properly preparing the metal surface is essential to obtaining consistent, high quality bonds. A mechanical or chemical pre-treatment should follow degreasing. Common pre-treatments are grit blasting and phosphating.

Further details are provided in our "Substrates Preparation Guide", please contact your usual Dow representative should you need a copy of this guide.

Mixing and Diluting

Diluents: Use aromatic solvents such as toluene and/or xylene as diluents.

First, thoroughly mix MEGUM 5386 with a propeller-type agitator. If diluting, slowly add the diluent to the adhesive while mixing. Continue to mix or recirculate while dispensing MEGUM 5386 from its application reservoir to keep the dispersed solids from settling to the bottom of the container. This will assure that a homogeneous mixture of the adhesive is applied.

Applying the Adhesive

MEGUM 5386 can be applied by brushing, dipping, spraying or other application methods.

- Brushing

Dilution ratio : Apply undiluted

- Dipping

Dilution ratio : 1 p.b.w. bonding agent + 0.2 - 0.3 p.b.w. diluent

- Spraying with air

Dilution ratio : 1 p.b.w. bonding agent + 0.4 - 0.8 p.b.w. diluent

Viscosity : at 20°C / 68 °F

16 - 25 seconds [DIN-4-cup]

18 - 30 seconds [Ford-4-cup]

21 - 35 seconds [Zahn #2 cup]

Spray gun : Most spray equipment can be used

Nozzle: e.g 1.0 mm / 0.04 in or 1.4 mm/ 0.055 in.

Air pressure : 2 - 4 bar / 30 - 60 psi

Drying Time

The drying time is approximately 30 min at 20°C / 68°F.

Drying at higher temperatures will reduce drying time accordingly, e.g. 5 minutes forced drying at 80°C / 176°F. Heated circulating air can accelerate drying further.

Do not dry at temperatures above 120°C/250°F.

Suggested Dry Film Thickness

Apply MEGUM 5386 at a dry film thickness of 5 to 25 microns (0.2 to 1.0 mil).



SPECIALTY ADHESIVES

Directions For Use (continued)

Dry Film Stability

MEGUM 5386 has excellent dry film stability. Inserts coated with MEGUM 5386 can be stored for several weeks, if protected from contamination.

Theoretical Coverage

Applied at a dry film thickness of 15 microns (0.6 mil) MEGUM 5386 will cover approximately 9.4 m²/kg (370 square feet/gallon). With a reduced dry film thickness of 10 microns (0.4 mil) MEGUM 5386 will cover 14.1 m²/kg (550 square feet/gallon).

Pre-bake Resistance

MEGUM 5386 has outstanding prebake resistance. Depending on the rubber formulation, coated inserts can be pre-baked for up to 10-15 minutes at 160°C / 320°F without adversely affecting bond quality even if applied at a dry film thickness of 5-10 microns (0.2-0.4 mil). Dried films of MEGUM 5386 show no tendency to sweep during transfer or injection molding.

Cleaning

Cleaning should be done using recommended dilution solvents.

Further details are given in our "General Guide to Use", please contact your usual Dow representative should you need a copy of this guide.

Shelf Life

MEGUM 5386 has a shelf life of at least 9 months if stored unopened at temperatures below 25 °C / 77 °F. If the material is kept beyond its recommended shelf life, a quality control evaluation should be performed prior to use. This check should include bond testing as well as evaluation of typical physical properties.

Safety Information

Before using this product, consult the Material Safety Data Sheet (MSDS)/Safety Data Sheet (SDS) for details on product hazards, recommended handling precautions and product storage.

These sheets contain important information that you may need to protect your employees and customers against any known health and safety hazards associated with our products. We recommend that you obtain copies of our MSDS from your local distributor / Dow representative. We also suggest that you contact your suppliers of other materials recommended for use with our products for appropriate health and safety precautions before using them.

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SPECIALTY ADHESIVES

Handling Precautions

For personal protection see section EXPOSURE CONTROLS/PERSONAL PROTECTION of the MSDS. Provide sufficient air exchange and/or exhaust in work rooms. Avoid contact with skin and eyes. Do not breathe vapors or spray mist.

CAUTION! Keep combustible and/or flammable products and their vapors away from heat, sparks, flames and other sources of ignition including static discharge. Processing or operating at temperatures near or above product flashpoint may pose a fire hazard. Use appropriate grounding and bonding techniques to manage static discharge hazards.

Storage

Store products in tightly closed original containers in a cool, dry, well-ventilated place. Avoid temperature extremes during storage; ambient temperature preferred. Store out of direct sunlight. Material can burn; limit indoor storage to approved areas equipped with protection against fire.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

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