

MEGUM™ 5382 Solvent-Based Adhesive

Description

MEGUM 5382 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.

Typical Properties

These properties are typical but do not constitute specifications.

Appearance	Black, liquid
Dry solid content (Non-volatile solids by weight)	20.5-23.5%
Viscosity, Brookfield (LV # 2 spindle at 30 rpm)	200-500 mPa.s (cP)
Density (20°C)	0.95-1.01 g/cm ³
Specific gravity (20°C)	0.98 g/cm ³
Weight per gallon	8.2 lbs
Volume solids	13.1% (calculated)
VOC content per gallon	6.3 lbs (calculated)
Dry film density	1.63 g/cm ³ (calculated)
Flash point (Seta)	+ 26°C/79°F

Main Features

Composition

MEGUM 5382 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 5382. These same primers can be used to adhere to thermoplastics such as polyamides and polyesters.

Molding and Curing

MEGUM 5382 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 5382 in combination with a primer yields bonds that are resistant to high temperatures, boiling water, salt fog and hydraulic fluids.

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 Rohm and Haas commercial representative should you need a copy of this guide.

Mixing and Diluting

Diluents

Use aromatic solvents such as toluene and/or xylene.

First, thoroughly mix MEGUM 5382 with a propeller-type agitator. If diluting, slowly add the diluent to the adhesive while mixing constantly.

Continue to mix MEGUM 5382 while spraying or dipping to keep the dispersed solids from settling to the bottom. This will assure that a homogeneous mixture of the adhesive is applied.

Applying the Adhesive

MEGUM 5382 can be applied by brushing, dipping, spraying or other application methods. For spray application, the viscosity can be reduced by either dilution and/or heating, e.g. to 40°C/105°F.

Application Methods

Brushing

Dilution ratio: Use undiluted.

Dipping

Dipping 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 + 0.3-0.7 p.b.w. diluent.

Viscosity: at 20°C/68°F.

30-80 mPa.s (cP) [Brookfield, LV# 2 spindle at 60 rpm].

16-24 seconds [DIN-4-cup].

18-28 seconds [Ford-4-cup].

22-32 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 minutes at 20°C/68°F.

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

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

Suggested Dry Film Thickness

Apply MEGUM 5382 at a dry film thickness of 10 to 25 microns (0.4 to 1.0 mil.).

Dry Film Stability

MEGUM 5382 has excellent dry film stability. Inserts coated with MEGUM 5382 can be stored for several weeks, if protected from contamination.

Theoretical Coverage

Applied at a dry film thickness of 17.5 microns (0.7 mil.), MEGUM 5382 will cover approximately 7,6 m²/kg (310 square feet/gallon).

Pre-bake Resistance

Depending on the rubber formulation, coated inserts can be pre-baked for up to 5-10 minutes at 160°C/320°F without adversely affecting bond quality. Dried films of MEGUM 5382 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 Rohm and Haas commercial representative should you need a copy of this guide.

Storage and Handling

Keep containers tightly closed. Store them in a cool, dry, well-ventilated area away from heat, direct sunlight and sources of ignition. Containers should be supported and grounded before opening, dispensing, mixing, pouring or emptying.

Shelf Life

MEGUM 5382 has a shelf life of at least 12 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

Material Safety Data Sheets (MSDS) are available for all Rohm and Haas products. 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 Rohm and Haas technical representative before using our products in your facilities. 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.

MEGUM is a trademark of Rohm and Haas Company.

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use of our products are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale.

Suggestions for uses of our products or the inclusion of descriptive material from patents and the citation of specific patents in this publication should not be understood as recommending the use of our products in violation of any patent or as permission or license to use any patents of the Rohm and Haas Company.

