MEGUM™ 538

Description

MEGUM™ 538 is a general purpose cover coat adhesive used 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. MEGUM™ or THIXON™ adhesive primers are used to adhere to metals such as hot and cold rolled steel, stainless steel, aluminum and brass prior to applying MEGUM™ 538. These same primers can be used to adhere to thermoplastics such as polyamides and polyesters.

Benefits & Features

This product is especially suitable for bonding both difficult to bond compounds and soft compounds used in NVH applications. MEGUM™ or THIXON™ adhesive primers are used to adhere to metals such as hot and cold rolled steel, stainless steel, aluminum and brass prior to applying MEGUM™ 538. These same primers can be used to adhere to thermoplastics such as polyamides and polyesters.

Uncured Properties	Nominal Value	Unit	Test Method
Color	Black		
Solids Content			
-- [1]	13	%	
-- [2]	22 to 25	%	ASTM D2369
Density	0.983	g/cm³	ASTM D1475
Dry Film Density	2.0	g/cm³	
VOC Content	6.20	lb/gal	
Flash Point [3]	26.0	°C	DIN 53213
Viscosity [4] (25°C, Brookfield RVT)	0.20 to 0.50	Pa·s	ASTM D1084
Viscosity (25°C)	22 to 50	sec	Zahn Cup 3
Theoretical Coverage [5]	8.90	m²/l	
Recommended Film Thickness	15	µm	
Recommended Film Thickness Range	10 to 25	µm	
Shelf Life [6] (25°C)	12	month	

Elastomer
NR, IR, SBR, BR,EPDM, IIR, CR, NBR, etc.
Substrate
CRS, SS, Cu, Brass, Zn and Mg Alloys with a THIXON™, MEGUM™ or ROBOND™ Primer.
Surface Prep
Review Dow 's rubber-to-substrate bonding agent application guide or contact your account manager.
Mix Instructions

Diluents: Toluene, xylene

First, thoroughly mix MEGUM™ 538 with a high speed propeller-type agitator. If diluting, slowly add the diluents to the adhesive while mixing.

Continue to mix or re-circulate while dispensing MEGUM™ 538 from its application reservoir to keep the dispersed solids from settling to the bottom. This will assure that a homogenous mixture of the adhesive is applied.

1 part adhesive: 0 part diluent - estimate 23.5% theoretical solids
1 part adhesive: 0.1 part diluent - estimate 21.4% theoretical solids
1 part adhesive: 0.2 part diluent - estimate 19.6% theoretical solids
1 part adhesive: 0.3 part diluent - estimate 18.1% theoretical solids
1 part adhesive: 0.5 part diluent - estimate 15.7% theoretical solids
1 part adhesive: 0.8 part diluent - estimate 13.1% theoretical solids

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Application Technique

Brushing: apply product undiluted. To obtain the required film thickness, brush on a heavy wet film without brushing excessively.

Dipping: dilute 1 part product with 0.0 - 0.3 parts diluent.

Spraying: dilute 1 part product with 0.4 - 0.8 parts diluent.

Drying the Film

The drying time is approximately 30 minutes at 28°C (68°F). At lower temperatures, dry longer. The drying time can be shortened by force drying 5 minutes at 80°C (176°F). Do not dry at temperatures above 120°C (250°F).

Molding and Curing

Can be used with all common molding and curing methods. Cure temperatures between 130°C and 190°C (265 and 375°F) are recommended.

Pre-Bake Resistance

Coated inserts can be pre-baked for 5-15 minutes at 160°C (320°F) without adversely affecting bond quality.

Dry Film Stability

Excellent dry film stability. Inserts coated with product can be stored for several weeks if protected from contaminants.

Clean-up

Equipment clean up should be done using recommended dilution solvents.

Packaging/Sizes Available

Drums, pails and cans.

Storage & Stability

The shelf life of this material is assured for 12 months (from the date of manufacture) at temperatures below 78°F in an unopened container.

Toxicity and Safety Information

Read the Safety Data Sheet before using this material. Toxicity and safety information is included in the SDS.

Food Contact Applications

Dow Automotive products are not approved for direct or indirect food contact or drinking water applications. If your applications include food contact or drinking water requirements, please contact your Dow representative. For more information on the regulatory status of this product, please refer to the SDS for this product.

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

[1] By volume

[2] Non-volatile solids by weight

[3] Abel-Pensky

[4] Spindle #3, @ 100 RPM

[5] Applied at a dry film thickness of 0.6 mil

[6] Unopened

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