



Technical Data Sheet

DOWSIL™ 288 Mica Binder

Pressure sensitive adhesive for mica tape application

Features & Benefits

- Good penetration and adhesion to a variety of substrates, such as glass fiber cloth and mica sheet
- Suitable for varying manufacturing process, such as coating, dipping

Composition

- 60% Polydimethylsiloxane polymer and resin dispersed in xylene solvent

Applications

- Binder for flame retardant mica tapes

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Test ¹	Property	Unit	Result
	Color		Clear to slight hazy
	Diluent		Xylene
CTM 0208S	Non-Volatile Content	%	61
CTM 0050CY	Viscosity	cSt	51,600

1. CTM: Corporate Test Method, copies of CTM's are available on request.

Description

DOWSIL™ 288 Mica Binder is especially designed for flexible flame retardant mica tape applications as a bonding material to firmly bond glass fiber cloth and mica sheets.

DOWSIL™ 288 Mica Binder is especially formulated to offer good penetration and adhesion to both glass fiber cloth and mica sheets. The strictly controlled viscosity range provides the users ease of operation control and consistency of high performance.

How to Use

DOWSIL™ 288 Mica Binder can be applied to the substrate by any suitable adhesive coating techniques in industry, it can be used as supplied or diluted with compatible solvent for the ease of operation.

When diluting with any solvent, refer to the solvent vendor's safety data sheet for information on physical and health hazards associated with the solvent and use of ventilation, PPE, bonding and grounding or other measures that can minimize or eliminate these risks.

How to Use (Cont.)

To enhance the bonding strength of DOWSIL™ 288 Mica Binder, free radical generator, such as, peroxides should be added to reinforce network structure and so as to improve cohesive strength and bonding capability. The preferred peroxides include benzoyl peroxide and 2, 4-dichloro benzoyl peroxide.

The peroxide concentration can be varied to obtain desired properties of DOWSIL™ 288 Mica Binder, through the change of peroxide addition level, one skilled in the art should be able to make cohesion emphasized or adhesion / tack emphasized products. The suggested dosage range from 0.5% to 3% on active ingredient basis.

To obtain the best performance, proper operation conditions need to be noticed:

Firstly, since the curing process is through free radical reaction, the thorough solvent removal is essential.

Secondly, to ensure the complete peroxide decomposition, enough dwell time and sufficient heat capacity is needed. Finally, to maintain the reasonable working bath life, any peroxide accelerator or retardant should be avoided.

The following curing condition is provided in reference to ensure the best performance, it can be varied in accordance to suit different oven efficiency and design:

1st stage process: 65–80°C x 2 minutes

2nd stage process: 178°C x 2 minutes

Handling Precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life and Storage

When stored at or below 30°C in the original unopened containers, DOWSIL™ 288 Mica Binder has a useable life of 9 months from the date of production.

Packaging Information

This product is available in 190 kg containers.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

Health and Environmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, dow.com or consult your local Dow representative.

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