Product Information

DOW CORNING

Organofunctional Silanes

Dow Corning® Z-6132 Silane

FEATURES

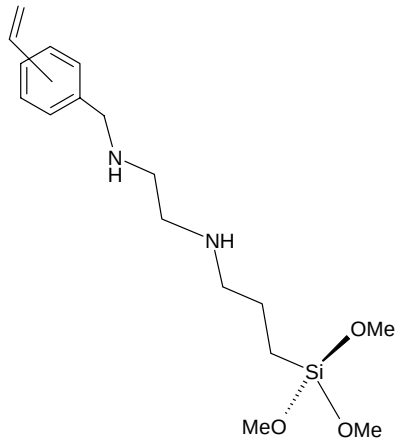
- Can be direct diluted with water
- Improved adhesion of plastic resins to inorganic surfaces
- Good resin wet-out of treated fiberglass fabric
- Increased wet and dry stength properties of composites

BENEFITS

- Organic and inorganic reactivity

COMPOSTION

- Vinyl benzyl amino ethyl amino propyl trimethoxysilane (average structure)



Easily dilutable version of Dow Corning® Z-6032 Silane

APPLICATIONS

- Useful as a coupling agent on fiberglass fabric for printed circuit board composites
- The chemical reactivity is compatible with a wide range of organic and inorganic materials to improve composite properties

TYPICAL PROPERTIES

Specifications writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales representative prior to writing specifications on this product.

Property	Unit	Value
Chloride ion in solution	**%**	**2.7**
Refractive Index		**1.398**
Viscosity (25°C)	**cst**	**5.4**
Active ingredient	**%**	**37**

DESCRIPTION

Dow Corning Z-6132 Silane contains vinylbenzyl and amino organo-functional groups and a trimethoxysilyl group for reactivity with inorganic surfaces. The product is supplied in methanol.

BENEFITS

Possessing both organic and inorganic reactivity, Dow Corning Z-6132 Silane can react with organic polymers and inorganic particles and surfaces such as glass fiber. As a coupling agent it can be used either as an additive to a compound or as surface pre-treatment.

HOW TO USE

Dow Corning Z-6132 Silane can be applied to inorganic surfaces as a dilute aqueous solution (0.1 to 0.5% silane concentration). Aqueous solutions are prepared by adjusting the pH of the water to about 3.5 to 4.0 with acetic acid and then adding the silane and stirring. After adding the silane to the acidified water, it is necessary to stir the mixture for about 15 minutes before it hydrolyses and forms a clear homogeneous solution. Higher concentrations of silane in water are not stable indefinitely and after standing several days may deposit an oily phase of condensed polysiloxane. It is recommended that aqueous solutions of these silanes be used within 24 hours of preparation. Old solutions will begin to haze—an indication of a significant amount of siloxane condensation.

Dow Corning silanes can also be applied as a solution in many common organic solvents. Solubility and stability of a specific organic solvent should, however, be verified before use in a commercial process.

In the case of mineral fillers, the mineral can be treated by mixing with the silane at very low shear for several minutes without any additional solvent. Alternatively, the silane can be diluted in water or a solvent as described above.

After applying the silane by a suitable method, the glass or mineral surface should be dried for 5 to15 minutes at 104˚C to 121˚C (220˚F to 250˚F) to drive the condensation of silanol groups at the surface and to remove traces of methanol from the treatment. Optimum application and drying conditions such as time and temperature should be determined for each application prior to use in a commercial process.

HANDLING PRECAUTIONS

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED. 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 FROM YOUR LOCAL DOW CORNING SALES REPRESENTATIVE.

USABLE LIFE AND STORAGE

When stored at or below 40°C (104°F) in the original unopened containers, this product has a usable life of 12 months from the date of production.

PACKAGING

This product is available in drums

Samples are available in 500 ml bottles.

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 Corning has an extensive Product Stewardship organization and a team of Health, Environment and Regulatory Affairs specialists available in each area.

For further information, please consult your local Dow Corning representative.

LIMITED WARRANTY - PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Dow Corning's products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

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