

GENIOSIL[®] 9201



Organofunctional Silanes

3-Ureidopropyltriethoxysilane in Methanol

GENIOSIL[®] 9201 is a clear liquid with a characteristic odor with an active silane content of 50 % (w/w).

CAS No. 23779-32-0 | Empirical formula $C_{10}H_{24}N_2O_4Si$ | Molecular weight 264,39 g/mol

Properties

Besides the application of GENIOSIL[®] 9201 as an adhesion promoter in formulations and primers, it is also used as a coupling agent for modifying fillers and pigments to enhance dispersibility in organic binders and plastics and thereby improve mechanical properties (flexural strength, tensile strength, modulus etc.). GENIOSIL[®] 9201 is an alkoxy silane with a functionalized amino group, dissolved in Methanol. It's a clear, colorless to light yellowish liquid with a characteristically odor. The compound reacts with moisture under hydrolysis of the alkoxy groups and forms silanols, which reacts further forming siloxanes. As a bifunctional alkoxy silane, GENIOSIL[®] 9201 can also interact with numerous organic polymers and thus function as a molecular bridge between organic and inorganic substrates.

Technical data

General Characteristics

Property	Condition	Value	Method
Appearance	-	clear liquid	-
Auto ignition temperature	-	> 300 °C	-
Boiling point ⁽¹⁾	1013 hPa	64 - 65 °C	-
Color index APHA	-	0 - 30	-
Density	20 °C	0.920 g/cm ³	DIN 51757
Flash point	-	9 °C	Pensky-Marten
Refractive index	25 °C	approx. 1.385 - 1.400	DIN 51423
Silane content	-	approx. 50 %	-

¹Methanol

These figures are only intended as a guide and should not be used in preparing specifications.

All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

Applications

- Adhesives
- Building & Construction Adhesives
- Chemical Industry
- Composites
- Industrial Adhesives
- Industrial Coatings
- Insulation Materials
- Primers for Paints & Coatings
- Sealants
- Thermoplastics & Elastomers

Application details

1. General processing information

GENIOSIL® 9201 is very readily soluble in alcohols, esters and ketones. It is only slightly soluble in n-hexane. With higher alcohols an exchange reaction forms mixed alkoxy silane bonds. In neutral water GENIOSIL® 9201 reacts under hydrolysis and condensation of the silanol groups.

2. GENIOSIL® 9201 as an Adhesion Promoter in Formulations

In silane crosslinking formulations GENIOSIL® 9201 may be added to the formulation as an adhesion promoter. Processing is effected by means of standard mixing methods. Usually, about 1 - 2 wt % silane is added to the formulation which would be equivalent to 2 - 4 % of the diluted silane in GENIOSIL® 9201.

3. GENIOSIL® 9201 as a surface modifier

Fillers are typically treated with pure GENIOSIL® 9201 as it is already diluted in Methanol It may be necessary to pretreat the substrate with water. Important application of GENIOSIL® 9201 is the use as an adhesion promoter in sealants, adhesives and coatings, and as a coupling agent for inorganic particles, pigments or fillers.

Packaging and storage

Packaging

GENIOSIL® 9201 is available in different packaging units:

- 0.4 KG Bottle
- 180 KG Drum
- 900 KG IBC

Storage

The 'Best use before end' date of each batch is shown on the product label. Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via WACKER web site <http://www.wacker.com>.

QR Code GENIOSIL® 9201



For technical, quality or product safety questions, please contact:

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