

Product Information VPS SIVO 1208

composition of primary amino silanes and lubricants with enhanced wetting behavior

CAS NUMBER

confidential

PRODUCT DESCRIPTION

VPS SIVO 1208 is a composition of primary amino silanes and lubricants with enhanced wetting behavior.

The dual nature of its reactivity allows VPS SIVO 1208 to bind chemically to both inorganic materials (e.g. glass, metals, fillers) and organic polymers (e.g. thermosets, thermoplastics, elastomers) thus functioning as an adhesion promoter, crosslinker, and/or surface modifier.

VPS SIVO 1208 is a colorless to slightly yellowish liquid of low viscosity. The product exhibits always a slight turbidity due to its composition, that does not influence its performance. VPS SIVO 1208 is easily and completely soluble in water, while its ethoxysilicon groups hydrolyse, release ethanol and form oligomeric structures.

Typical Properties

Property	Unit	Value		
Nitrogen (N ₂) Content	wt%	3.6		
Color		<= 150 mg [Pt-Co/I]		
ISO 6271 (filtered sample)				
Density	g/cm³	~0.990-1.000		
(20 °C) DIN 51757				
Flash Point, min.	°C	54		
DIN EN ISO 22719				
pH Value		~11.0-12.0		
(20 °C) DIN 19268, 1:1 in water				
Refractive Index		1.425		
(20 °C) DIN 51423				
Viscosity	mPa∙s	~30-100		
(20 °C) DIN 53015				

TYPICAL APPLICATIONS

Properties and applications

• as adhesion promoter in glass fiber/glass fabric composites: as a finish or size constituent.

The most important effects which can be achieved through the use of VPS SIVO 1208 are:

Improved product properties, such as:

- improved wetting properties
- improved mechanical properties, like impact strength, flexural strength, tensile strength and modulus of elasticity.

Improved processing properties, such as:

- wetting
- Iubricity.

Product Composition				
Product Composition	Unit	Value		
Nitrogen (N ₂) Content	wt%	3.6		
The data represents typical values (no product specification)				

BENEFITS & ADVANTAGES

Reactivity

In the presence of water, the ethoxy groups of VPS SIVO 1208 hydrolyze and form reactive silanol (Si-OH) groups which can bond to a variety of inorganic substrates. Upon hydrolysis ethanol is released. The organophilic amino group of VPS SIVO 1208 can react with a suitable polymer. The hydrolysis of VPS SIVO 1208 takes place autocatalytically.

Examples of suitable inorganic substrates are glass, glass fibers, glass wool, mineral wool, silicic acid, quartz, cristobalite, wollastonite, mica as well as aluminum trihydrate, magnesium dihydrate, kaolin, talc, other silicate fillers, metal oxides and metals.

VPS SIVO 1208 may be used with such polymers as epoxy, phenolic, furan and melamine resins, polyurethanes, PA, PBT, PC, EVA, modified PP, PVB, PVAC, PVC, PS, nitrile rubber, polyester, acrylates and silicones.



DOSAGE

Processing

VPS SIVO 1208 may be used as a constituent of aqueous sizes neat, or added to the polymer as an additive. In higher concentrations chemical modification can be achieved by reaction with suitable functional monomers or polymers, for example those containing epoxy groups.

HANDLING & PROCESSING

Before considering the use of Dynasylan[®] products please read its Safety Data Sheet (SDS) thoroughly for safety and toxicological data as well as for information on proper transportation, storage and use.

The Safety Data Sheet is available on our website https:// silanes.evonik.com/en or upon request from your local representative, customer service or from Evonik Operations GmbH, Product Safety Department, E-MAIL sds-hu@evonik.com.

Please consult your local Evonik representative to discuss exact handling (e.g. dilution, wetting, curing temperature) of VPS SIVO 1208 with a technical expert to achieve the best possible results in your application.

PACKAGING

VPS SIVO 1208 is supplied in 25 kg can, 180 kg drums and 1.000 kg IBC.

STORAGE

It is recommended to store VPS SIVO 1208 above 4 °C.

However, singular freezing does not influence the product quality. Frozen product is re-useable after complete thawing and homogenization. Just stirring is sufficient for homogenization.

SHELF LIFE

VPS SIVO 1208 has a shelf life of at least 12 months from delivery in an originally sealed can, drum or IBC.

Registration Listings	
Registry	Status
Australia (AIIC)	Yes
Canada (DSL)	Yes
China (IECSC)	Yes
European Union (EINECS/ELINCS)	Yes
Japan (ENCS)	Yes
South Korea (KECL)	Yes
Philippines (PICCS)	Yes
United States of America (TSCA)	Yes

Disclaimer

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