

## Product Information

# VPS 2990

**aqueous oligomeric methacrylamidoalkyl-functional silane hydrolysate**

### CAS NUMBER

confidential

### PRODUCT DESCRIPTION

VPS 2990 is an aqueous oligomeric methacrylamidoalkyl-functional silane hydrolysate. It is a yellow to red-dish-brownish aqueous solution with an amine-like odour, miscible with alcohols or water.

VPS 2990 can be diluted with water in all proportions (stirring for at least 1 h at RT). During dilution, the oligomeric structure changes and the number of SiOH groups increases. The hydrolysates are long-term stable.

#### Typical Properties

Property	Unit	Value
<b>Solids Content</b>	wt%	38-42
<b>Color</b> ISO 6271		<= 500 mg Pt-Co/l
<b>Density</b> (20 °C) DIN 51757	g/cm <sup>3</sup>	-1.090-1.110
<b>Flash Point, min.</b> DIN EN ISO 2719	°C	95
<b>pH Value</b> DIN 19268		-5.5-7.8
<b>Refractive Index</b>		1.42
<b>Viscosity</b> (20 °C) DIN 53015	mPa·s	<100

The data represents typical values (no product specification)

### TYPICAL APPLICATIONS

VPS 2990 is a trifunctional organic compound in which the silanol groups can be bonded to an inorganic substrate and

the organophilic aminoalkyl- and vinyl-functional group can interact with a suitable polymer or resin.

Examples of suitable inorganic substrates are:

- glass, glass fibers, glass beads and glass wool
- mineral wool
- metals
- and various fillers like quartz, wollastonite or ATH.

Examples of suitable polymers or resins are:

- Thermosets like epoxy, phenolic, furanic and melaminic resins
- Thermoplastics like PA, PBT, EVA, PPS, MAPE, MAPP, PVB, acrylates
- Elastomere like silicones.

VPS 2990 finds application in many industries. Advantages arise in water-based systems.

Examples are:

- as a glass and metal primer
- as a size constituent of glass fiber/glass fabric composites or mineral wool insulating materials
- as an additive to foundry resins and abrasives
- as a pretreatment or an additive to mineral-filled thermoplastic compounds
- as an additive for adhesives and sealants to improve adhesion to the substrate
- as an additive and/or primer for paints and varnishes to improve adhesion to the substrate.

#### Product Composition

Product Composition	Unit	Value
<b>Solids Content</b>	wt%	38-42

The data represents typical values (no product specification)

### BENEFITS & ADVANTAGES

The reactive silanol (Si-OH) groups of VPS 2990 can bond to a variety of inorganic substrates. The methacrylamido groups interacts with the polymer. Examples of suitable inorganic substrates are glass, glass fibers, glass wool, min-

eral wool, silicic acid, quartz, sand, cristobalite, wol-  
lastonite and mica; also suitable are aluminium hydroxide,  
kaolin, talc, other silicate fillers, metal oxides and metals.

Examples of suitable polymers include unsaturated poly-  
ester, acrylates and vinyl esters.

## DOSAGE

To prepare an aqueous pretreatment solution, approx. 1-5  
wt.% VPS 2990 is dissolved in water. The solution is stable  
for at least 1-2 days pH adjustment to e.g. 3-4 possible  
with acetic acid.

## HANDLING & PROCESSING

Before considering the use of Dynasylan® products please  
read their actual 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](https://silanes.evonik.com/en) or upon request from your local  
representative, customer service or from Evonik Opera-  
tions GmbH, Product Safety Department, E-MAIL  
[sds-hu@evonik.com](mailto:sds-hu@evonik.com).

Please refer to your Evonik representative to discuss exact  
handling (e.g. dilution, wetting, curing temperature) of

VPS 2990 with a technical expert to achieve the best pos-  
sible results.

## PACKAGING

VPS 2990 is supplied in 25 kg PE cans and 200 kg drums.

## STORAGE

It is recommended to store VPS 2990 above 4°C.

VPS 2990 has a flash point  $\geq 95^{\circ}\text{C}$  and can be stored and  
transported accordingly with different local requirements,  
compared to flammable liquids (Category 2, 3 and 4), as  
the most established monomeric alkoxy silane materials are.

## SHELF LIFE

VPS 2990 has a shelf life of at least 12 months from deliv-  
ery in an originally sealed can, drum or IBC.

### Registration Listings

Registry	Status
China (IECSC)	Restrictions apply
EU (REACH)	Exempted

#### Disclaimer

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