Dynasylan®

Product Information

Dynasylan® 6490

Reactive vinyl siloxane oligomer, methoxy functional

PRODUCT DESCRIPTION

Dynasylan® 6490 is a vinyl silane concentrate (oligomeric siloxane) containing vinyl and methoxy groups.

Dynasylan® 6490 is a colourless, nearly odorless low-viscosity liquid.

Dynasylan® 6490 is an excellent compatibiliser between inorganic fillers (e.g. kaolin, MDH, ATH) and organic polymers (e.g. EPDM, EVA, PE).

The high boiling point of Dynasylan® 6490, together with its high flash point, gives it outstanding advantages with respect to safety and handling during processing. From an environmental viewpoint it should be noted that the amount of released hydrolysis methanol (VOC) is significantly reduced compared to monomeric vinyl silanes.

Typical Properties

Property	Unit	Value
Chemical Name		Vinylsilane Oligomer
Density (20 °C) DIN 51757	g/cm³	~1
Viscosity (20 °C) DIN 53015	mPa·s	2-4

The data represents typical values (no product specification)

TYPICAL APPLICATIONS

A major field of application for mineral-filled compounds is the cable industry. EPDM and EVA can be processed into highly filled cable compounds through the adhesion promoting and hydrophobising effect of Dynasylan® 6490.

BENEFITS & ADVANTAGES

The EPDM and EVA polymers with Dynasylan® 6490 are for the halogen-free, non-toxic, environmentally-friendly flame retardant cable compounds (HFFR) based on ATH and MDH.

In addition, Dynasylan® 6490 can be used in many other applications such as filler and pigment coating, dispersions etc. typical property improvements obtained by using Dynasylan® 6490 in filled polymers are:

- improved filler dispersion
- good processability significantly
- reduced water-uptake
- excellent balance between tensile strength and elongation at break at a high level
- improved chemical resistance
- strongly reduced tendency to stress cracking
- higher impact strength
- higher abrasion resistance

HANDLING & PROCESSING

Dynasylan® 6490 is excellent as an adhesion promoter, dispersion and hydrophobation agent in mineral filled compounds.

In the presence of moisture, the methoxy groups of Dynasylan® 6490 hydrolyse to produce methanol and reactive silanol groups. These silanol groups react with the filler via silicon-oxygen bridges. The vinyl functional groups of Dynasylan® 6490 react with the polymer phase in the presence of radicals.

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 upon request from your local representative, customer service or from Evonik Operations GmbH, Product Safety Department, E-MAIL sds-hu@evonik.com.

PACKAGING

Dynasylan® 6490 is supplied in 25 kg, 200 kg drums and 1.000 kg containers.

STORAGE

The containers must remain tightly sealed and stored in a cool, well-ventilated place protected against moisture.

SHELF LIFE

In the unopened container Dynasylan® 6490 has a shelf life of min. 12 months from delivery.

Registration Listings	
Registry	**Status**
Australia (AIIC)	No
China (IECSC)	Yes
EU (EINECS/ELINCS)	Yes

Registration Listings	
Registry	**Status**
Japan (ENCS)	Yes
South Korea (KECL)	Yes
Taiwan (TCSI)	Yes
USA (TSCA)	Yes

Disclaimer

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