

Dynasytan® 6498

Vinyl silane concentrate (oligomeric siloxane)

Technical data

Properties and test methods	Value	Unit	Method
Boiling point	> 242 / > 468	°C / °F	ASTM D-1120
SiO ₂ -content	approx. 45	% w/w	AN-SAA 0754
Flash point	> 75 / 167	°C / °F	DIN EN ISO 2719 (Pensky-Martens, closed-cup)
Viscosity, dynamic (20 °C / 68 °F)	3 - 7	mPa·s / cSt	DIN 53015
Density (20 °C / 68 °F)	approx. 1	g/cm ³	DIN 51757

Registrations

Dynasytan® 6498

EINECS/ELINCS (EU):	Yes
AICS (Australia):	No
DSL/NDSL (Canada):	*
PICCS (Philippines):	Yes
TSCA (USA):	Yes
IECSC (P.R. China):	Yes
ENCSC (Japan):	Yes
ECL (South Korea):	Yes
* = information on request	
REACH (Europe)	Exempted

Dynasytan® 6498 is a vinyl silane concentrate (oligomeric siloxane) containing vinyl and ethoxy groups.

Dynasytan® 6498 is a colourless, nearly odorless low-viscosity liquid.

Dynasytan® 6498 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 Dynasytan® 6498, 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 ethanol (VOC) is significantly reduced compared to monomeric vinyl silanes.

Safety and handling

Before considering the use of Dynasytan® 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 after registration on our website www.dynasytan.com or upon request from your local representative, customer service or from Evonik Resource Efficiency GmbH, Product Safety Department, E-MAIL sds-hu@evonik.com.

Packaging, storage and shelf life

Dynasytan® 6498 is supplied in 25 kg containers, 200 kg drums and 1.000 kg bulk containers.

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

In the unopened container the shelf life of Dynasytan® 6498 is min. 12 months from delivery.

Properties and applications

Dynasylan® 6498 is excellent as an adhesion promoter, dispersion and hydrophobation agent in mineral filled compounds. In the presence of moisture, the ethoxy groups of Dynasylan® 6498 hydrolyse to produce ethanol and reactive silanol groups. These silanol groups react with the filler via silicon-oxygen bridges. The vinyl functional groups of Dynasylan® 6498 react with the polymer phase in the presence of radicals: 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® 6498.

The EPDM and EVA polymers with Dynasylan® 6498 are for the halogen-free, non-toxic, environmentally-friendly flame retardant cable compounds (HFFR) based on ATH and MDH.

In addition, Dynasylan® 6498 can be used in many other applications such as filler and pigment coating, dispersions etc.

Typical property improvements obtained by using Dynasylan® 6498 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

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