

Product Information

Dynasylan® 1505

3-aminopropylmethyldiethoxysilane

PRODUCT DESCRIPTION

Dynasylan® 1505 is a bifunctional organic compound in which the silicon-functional ethoxy-groups hydrolyze in the presence of water to form reactive silanols, which can be bonded to an inorganic substrate; the organophilic amino group can interact with a suitable polymer.

Examples of suitable inorganic substrates are:

sand, mineral wool, silicic acid, quartz, cristobalit, wollastonite and mica; also suitable are aluminium hydroxide, kaolin, other silicate fillers, metal oxides and metals.

Examples of suitable polymers are:

phenolic resins, furan resins, silicones and melamie resin. Dynasylan® 1505 can undergo reactions with ketones or esters.

Silane or silanized substrates can react with carbon dioxide to form the corresponding carbonates or carbamates.

Typical Properties		
Property	Unit	Value
Chemical Name		gamma-Aminopropylmethyldiethoxysilane
Density (20 °C) DIN 51757	g/cm ³	0.90-0.92
Flash Point DIN EN ISO 2719	°C	≤88
pH Value (20 °C) DIN 38404-C5, 1:1 in water		~11
Viscosity (20 °C) DIN 53015	mPa·s	<5

The data represents typical values (no product specification)

TYPICAL APPLICATIONS

Dynasylan® 1505 is an important additive in many applications. For example it can be used as an additive in cold-cu-

ring phenolic and furan foundry resins to improve the flexural strength of sand/resin elements with very long shelf life of the resins.

Further examples are:

- use in glass and metal primers
- as an additive to phenolic resin binders used in abrasives manufacture
- for treatment of inorganic fillers and pigments for use in mineral-filled composites or plastics or polymers
- as an additive for the synthesis of organically modified silicones.

BENEFITS & ADVANTAGES

The most important effects which can be achieved by using Dynasylan® 1505 are:

- improvement in product properties, such as mechanical properties, for example flexural strength, tensile strength, impact strength and modulus of elasticity or adhesion
- improvement in processing properties, such as viscosity
- moisture and corrosion resistance.

DOSAGE

The hydrolysis of Dynasylan® 1505 takes place autocatalytically in about 5-10 minutes. Hydrolysates having a concentration of < 5 wt.-% are stable for more than 72 hours. The pH is about 11.

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

PACKAGING

Dynasylan® 1505 is supplied in 180 kg drums.

STORAGE

Local regulations have to be followed and applied.

From technical point of view a storage between 4°C and 40°C is beneficial.

The material is stable as long as not exposed to air or moisture.

SHELF LIFE

In the original unopened container Dynasylan® 1505 has a shelf life of at least 12 months from delivery.

Registration Listings

Registry	Status
EU (REACH)	Yes
EU (EINECS/ELINCS)	Yes
Japan (ENCS)	Yes
South Korea (KECL)	Yes
Philippines (PICCS)	Yes
Türkiye (KKDIK)	Yes
USA (TSCA)	Yes

Registration Listings

Registry	Status
Australia (AIIC)	Yes
Canada (DSL)	Yes
China (IECSC)	Yes

Disclaimer

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Evonik Operations GmbH

Smart Effects
Rodenbacher Chaussee 4
63457 Hanau
Germany
ask-se@evonik.com
ask-se-asia@evonik.com
ask-se-americas@evonik.com
www.evonik.com/smarteffects