

Dynasylan® 1146

Oligomeric diamino-silane-system

Technical data

Properties and test methods	Value	Unit	Method
Density	approx. 1,06	g/cm ³	DIN 51757
Viscosity (20 °C /68 °F)	approx. 35	mPa·s / cSt	DIN 53015
Flash point	> 60	°C	EN 22719
Physical form	light straw-colored liquid	-	-

Registrations

Dynasylan® 1146

EINECS/ELINCS (EU):	Yes
AICS (Australia):	No
DSL/NDSL (Canada):	*
PICCS (Philippines):	No
TSCA (USA):	Yes
IECS (P.R. China):	Yes
ENCS (Japan):	*
ECL (South Korea):	Yes
* = available on request	

Hydrophobic **Dynasylan® 1146** diaminofunctional silane may be used in coatings, adhesives, and sealants to improve the adhesion of amino-reactive resins.

These are resins such as silicones (RTV), two-part urethanes, silylated urethanes, MS polymers, and two-part epoxies to inorganic surfaces, plastic surfaces, and inorganic fillers.

Dynasylan® 1146 silane is characterized by randomly-distributed linear and cyclic oligosiloxanes and fulfills the OECD polymer definition. Its low volatility and viscosity make compounding easy. **Dynasylan® 1146** silane produces significantly less by-product (VOC) and has a correspondingly low odor level during application.

Safety and handling

Before considering the use of Dynasylan® products please read its Material Safety Data sheet (MSDS) thoroughly for safety and toxicological data as well as for information on proper transportation, storage and use. The Material Safety Data Sheet is available after registration on our website www.dynasylan.com or upon request from your local representative, customer service or from Evonik Industries AG, Product Safety Department, E-MAIL sds-im@evonik.com.

Packaging and storage

Dynasylan® 1146 is supplied in 25 kg pails and 200 kg drums. In the unopened container **Dynasylan® 1146** has a shelf life of at least one year.

Properties and application

Dynasylan[®] 1146 silane is a versatile product that provides improved product performance and quality. **Dynasylan**[®] 1146 silane is soluble in common organic solvents (e. g. MeOH, EtOH, MEK). **Dynasylan**[®] 1146 silane may be used as an additive or as a primer in coatings, adhesives, and sealants applications. When used as an additive, **Dynasylan**[®] 1146 silane can eliminate the need for special primers in numerous bonding applications. Specific systems that demonstrate improved adhesion when **Dynasylan**[®] 1146 silane is used include RTV silicones and hybrid silane-crosslinked systems. Additive loading levels of 0.5 to 1.5wt.% **Dynasylan**[®] 1146 silane with regard to the overall formulation are typically recommended.

Dynasylan[®] 1146 silane can also be utilized as a mineral filler treatment. The diamino and alkyl functionalities result in unique functional filler properties when **Dynasylan**[®] 1146 treated minerals are incorporated into polymers.

Key Benefits

Because of its unique oligomeric structure, **Dynasylan**[®] 1146 silane exhibits excellent wetting on substrates and forms weather- and moisture-resistant bonds to substrates with difficult adhesion properties. The diamino functionality provides a reactive site for amino-reactive resins, whereas the alkyl functionality imparts hydrophobicity. Use of in silylated urethane or MS polymer adhesives and sealants results in: superior wet adhesion to inorganic (e.g. concrete, aluminum) and organic substrates (e.g. PVC) improvements in elongation and modulus, allowing the formulation of highly elastic products negligible yellowing and staining

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