

# Dynasylan® 1146

## Oligomeric diaminosilane system

### Technical data

Properties and test methods	Value	Unit	Method
Density	approx. 1,06	g/cm <sup>3</sup>	DIN 51757
Viscosity (20 °C /68 °F)	approx. 35	mPa·s / cSt	DIN 53015
Flash point	> 60	°C	EN 22719
Physical form	clear to light opaque; colorless to light yellowish	-	-

### 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
REACH (Europe)	Exempted
* = available on request	

Hydrophobic Dynasylan® 1146 diamino-functional silane is used in adhesives and sealants, and in coatings, to improve the adhesion of amino-reactive resins (e.g. RTV-silicones, 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 it 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 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.dynasylan.com](http://www.dynasylan.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](mailto:sds-hu@evonik.com).

### Packaging, storage and shelf life

Dynasylan® 1146 is supplied in 25 kg pails, 200 kg drums and 1.000 kg IBC's.

In the unopened container Dynasylan® 1146 has a shelf life of min. 12 months from delivery.

## Properties and applications

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 adhesives and sealants, and in coatings 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 1.5 wt.% 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
- reduced yellowing and staining
- significantly reduced water uptake, allowing for water resistant adhesives

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#### **Europe/Middle-East/Africa/RoW**

##### **Evonik Resource Efficiency GmbH**

Business Line Silanes  
Rodenbacher Chaussee 4  
63457 Hanau-Wolfgang  
Germany  
PHONE +49 6181 59 13636  
FAX +49 6181 59 713915  
dynasytan@evonik.com  
www.dynasytan.com

#### **Asia / Pacific**

##### **Evonik (SEA) Pte. Ltd.**

Business Line Silanes  
3 Internatioanl Business Park  
#07-18, Nordic European Centre  
Singapore 609927  
PHONE +65 6809 6576  
FAX +65 6809 6699  
dynasytan@evonik.com  
www.dynasytan.com

#### **Asia / Pacific**

##### **Evonik Japan Co. Ltd**

Business Line Silanes  
12th Floor Monolith Building  
2-3-1, Nishi-Shinjuku-ku  
Tokyo 163-0912  
Japan  
PHONE +81 353 23 7446  
FAX +81 353 23 7397  
dynasytan@evonik.com  
www.dynasytan.com

#### **North America**

##### **Evonik Corporation**

Business Line Silanes  
299 Jefferson Road  
Parsippany, NJ 07054-0677  
USA  
PHONE (TOLL FREE) +1 800 237 67 45  
PHONE +1 973 929 8513  
FAX +1 973 929 8503  
dynasytan@evonik.com  
www.dynasytan.com

#### **Asia / Pacific**

##### **Evonik Specialty Chemicals (Shanghai) Co. Ltd.**

Business Line Silanes  
55, Chungdong Road  
Xinzhuang Industry Park  
Shanghai 201108  
P.R. China  
PHONE +86 21 61191-399  
FAX +86 21 61191-648  
dynasytan@evonik.com  
www.dynasytan.com

#### **Asia / Pacific**

##### **Evonik India Pvt. Ltd.**

Business Line Silanes  
Krislon House  
Saki Vihar Road, Anderi (E)  
Mumbai - 400 072  
India  
PHONE +91 226 7238 809  
FAX +91 226 7238 811  
dynasytan@evonik.com  
www.dynasytan.com

#### **North America**

##### **Silbond Corporation**

9901 Sand Creek Highway  
Weston, MI 49289  
USA  
PHONE +1 517 436 9316  
FAX +1 517 436 3148  
dynasytan@evonik.com  
www.dynasytan.com

#### **Asia / Pacific**

##### **Evonik Korea Ltd.**

Business Line Silanes  
94, Galsan 1-dong  
Bupyeong-gu  
Incheon, 403-081  
Korea  
PHONE +82 2320 4773  
FAX +82 2783 2520  
dynasytan@evonik.com  
www.dynasytan.com

#### **Latin America**

##### **Evonik Brasil Ltda.**

Business Line Silanes  
Alameda Campinas, 579  
01404-000 São Paulo-SP  
Brazil  
PHONE +55 11 3146 4123  
FAX +55 11 3146 4148  
dynasytan@evonik.com  
www.dynasytan.com

#### **Asia / Pacific**

##### **Evonik Taiwan Ltd.**

Business Line Silanes  
Artist Construction Bldg.  
9F, No. 133  
Min Sheng East Road, Sec 3  
Taipei, 105 Taiwan, R.O.C.  
Taiwan 10596  
PHONE +886 227 17 1242  
FAX +886 227 17 2106  
dynasytan@evonik.com  
www.dynasytan.com