Product information

Dynasylan® AMEO-T

Proprietary aminosilane composition

Technical data

Properties and test methods	Value	Unit	Method
Density (20 °C/ 68 °F)	approx. 0.95	g/cm³	DIN 51757
Refractive index n (20,D)	approx. 1.425	-	DIN 51423
Boiling point (4 hPa)	> 68	°C	DIN 51356
Flash point	approx. 93/ 200	°C/ °F	DIN 51758
Viscosity (20 °C/ 68 °F)	approx. 2/ 2.1	mPa·s / cSt	DIN 53015

Registrations

Dynasylan® AMEO-T

EINECS/ELINCS (EU):	Yes
AICS (Australia):	Yes
DSL/NDSL (Canada):	Yes
PICCS (Philippines):	Yes
TSCA (USA):	Yes
IECS (P.R. China):	Yes
ENCS (Japan):	Yes
ECL (South Korea):	Yes

Dynasylan® AMEO-T is a blend of primary and secondary aminofunctional silanes.

The blend contains more than 90 wt% of 3-aminopropyltriethoxysilane. Aminofunctional silanes posses a reactive amino group and a hydrolyzable ethoxysilyl group. The dual nature of this reactivity allows **Dynasylan®** AMEO-T to bind chemically to both inorganic materials (e.g. glass, metals and fillers) and organic polymers (e.g. thermosets, thermoplastics, elastomers) thus functioning as an adhesion promoter, a surface modifier and a reactive reagent.

Dynasylan® AMEO-T is a yellowish liquid with an amine-like odor. It is soluble in alcohols as well as aliphatic or aromatic hydrocarbons.

Safety and handling

Before considering the use of Dynasylan® and Protectosil® 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® AMEO-T is supplied in 25 and 180 kg drums and 900 kg containers. In the unopened container **Dynasylan®** AMEO-T has a shelf life of at least one year.

Properties and application

Dynasylan® AMEO-T is an essential constituent in many areas of application. Examples are:

- primers: for glass and metal
- mineral fiber insulating materials, abrasives: as an additive to phenolic resin binders
- foundry resins: as an additive to phenolic, furan and melamine resins
- sealants and adhesives: as a primer or additive
- mineral-filled polymers (composites) or HFFR cables: for pre-treatment of fillers and pigments or as an additive
- paints and coatings: as an additive and primer for improving adhesion to the substrate.

The most important effects which can be achieved using **Dynasylan®** AMEO-T are:
improvement of product properties, such as

- flexural strength, tensile strength, impact strength and modulus of elasticity
- moisture and corrosion resistance
- electrical properties, for example dielectric constant, volume resistivity

improvement in processing properties, such as

- adhesion
- filler dispersion
- rheological behaviour: reduction in viscosity, Newtonian behavior
- higher filler loading

Reactivity

In the presence of water, the ethoxy groups of **Dynasylan®** AMEO-T hydrolyze to produce ethanol and reactive silanol groups, which can bond to a variety of inorganic substrates. The organophilic amino group can react with a suitable polymer.
The hydrolysis of **Dynasylan®** AMEO-T takes place autocatalytically. Aqueous solutions of **Dynasylan®** AMEO-T might show a certain turbidity. In these cases the hydrolysis is preferably carried out at pH 3.
Examples of suitable inorganic substrates are glass, glass fibers, glass wool, mineral wool, silicic acid, quartz, sand, cristobalite, wollastonite and mica as well as aluminium hydroxide, kaolin, talc, other silicate fillers, metal oxides and metals. **Dynasylan®** AMEO-T may be used with such polymers as phenolic, furan and melamine resins, polyurethanes, PA, PBT, PC, EVA, modified PP, PVB, PVAC, PVC, acrylates and silicone.
Dynasylan® AMEO-T can undergo reactions with ketone or ester solvents. The silane or silanized substrates can react with carbon dioxide to form the corresponding carbonates and/or carbamates.

Processing

Dynasylan® AMEO-T may be used as an approximately 0.5-10 percent solution as a constituent of aqueous sizes, neat, or added to the polymer as an additive.

Europe/Middle-East/Africa/RoW
Evonik Industries AG
Inorganic Materials
Rodenbacher Chaussee 4
63457 Hanau-Wolfgang
Germany
PHONE +49 6181 59 13636
FAX +49 6181 59 13737
dynasylan@evonik.com
www.dynasylan.com

North America
Evonik Degussa Corporation
Inorganic Materials
P.O. Box 677
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
dynasylan@evonik.com
www.dynasylan.com

Latin America
Evonik Brasil Ltda.
Inorganic Materials
Alameda Campinas, 579
01404-000 São Paulo-SP
Brazil
PHONE +55 11 3146 4123
FAX +55 11 3146 4109
dynasylan@evonik.com
www.dynasylan.com

Asia / Pacific
Evonik Degussa (SEA) Pte. Ltd.
Inorganic Materials
3 Internatioanl Business Park
#07-18, Nordic European Centre
Singapore 609927
PHONE +65 6809 6830
FAX +65 6809 6630
dynasylan@evonik.com
www.dynasylan.com

Asia / Pacific
Evonik Degussa (Shanghai) Co. Ltd.
Inorganic Materials
55, Chungdong Road
Shanghai 201108
P.R. China
PHONE +86 21 6119 1053
FAX +86 21 6119 1075
dynasylan@evonik.com
www.dynasylan.com

Asia / Pacific
Evonik Korea Ltd.
Inorganic Materials
94, Galsan 1-dong
Bupyeong-gu
Incheon, 403-081
Korea
PHONE +82 32 510 2433
FAX +82 32 505 2510
dynasylan@evonik.com
www.dynasylan.com

Asia / Pacific
Evonik Taiwan Ltd.
Inorganic Materials
Artist Construction Bldg.
9F, No. 133
Min Sheng East Road, Sec 3
Taipei, 105 Taiwan, R.O.C.
Taiwan
PHONE +886 227 17 1242
FAX +886 227 17 2106
dynasylan@evonik.com
www.dynasylan.com

Asia / Pacific
Evonik Japan Co. Ltd
Inorganic Materials
12th Floor Monolith Building
2-3-1, Nishi-Shinjuku-ku
Tokyo 163-0912
Japan
PHONE +81 353 23 7300
FAX +81 353 23 7399
dynasylan@evonik.com
www.dynasylan.com

Asia / Pacific
Evonik India Pvt. Ltd.
Inorganic Materials
Krislon House
Saki Vihar Road, Anderi (E)
Mumbai - 400 072
India
PHONE +91 226 7238 800
FAX +91 226 7238 811
dynasylan@evonik.com
www.dynasylan.com