

Dynasytan® AMEO-T

Proprietary aminosilane composition

Technical data

Properties and test methods	Value	Unit	Method
Boiling point (4 hPa)	> 68.0	°C	DIN 51356
Content Dynasytan AMEO	> = 90	wt.-%	SAA 0719
Content secondary AMINO-Silanes	< = 10	wt.-%	SAA 0719
Density (20 °C)	approx. 0.95	g/cm ³	DIN 51757
Flash point	88-98	°C	DIN EN ISO 2719
Refractive index n (20,D)	approx. 1.425	-	DIN 51423
Viscosity (20 °C)	2	mPa·s / cSt	DIN 53015

Registrations

Dynasytan® 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

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

The blend contains more than 90 wt% of 3-aminopropyltriethoxysilane. Aminofunctional silanes possess a reactive amino group and a hydrolyzable ethoxysilyl group. The dual nature of this reactivity allows Dynasytan® 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.

Dynasytan® 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 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 Operations GmbH, Product Safety Department, E-MAIL sds-hu@evonik.com.

Packaging, storage and shelf life

Dynasytan® AMEO-T is supplied in 25 and 180 kg drums and 900 kg IBC containers.

In originally unopened containers Dynasytan® AMEO-T has a shelf life of min. 12 months from delivery.

Properties and applications

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.

This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. EVONIK EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOMMENDATIONS PROVIDED. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice.

Europe/Middle-East/Africa

Evonik Operations GmbH

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

Asia / Pacific

Evonik (SEA) Pte. Ltd.

Silanes Business Line
3 Internatioanl Business Park
#07-18, Nordic European
Centre
Singapore 609927
PHONE +65 6809 6906
FAX +65 6809 6699
dynasytan@evonik.com
www.dynasytan.com

Asia / Pacific

Evonik Japan Co. Ltd

Silanes Business Line
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

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

Asia / Pacific

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

Silanes Business Line
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.

Silanes Business Line
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 +1 732 981 5004
FAX +1 732 981 5275
dynasytan@evonik.com
www.dynasytan.com

Asia / Pacific

Evonik Korea Ltd.

Silanes Business Line
3F (Nongshim Sungmookwan
B/D)
112 Yeouidaebang-Ro
Dongjak-Gu
Seoul, 07057
Korea
PHONE +82 2320 4773
FAX +82 2783 2520
dynasytan@evonik.com
www.dynasytan.com

Region Central and South America

Evonik Brasil Ltda.

Silanes Business Line
Rua Arquiteto Olavo Redig de Campos,
105
Torre A - 04711-904 São Paulo- SP
Brazil
PHONE +55 11 3146 9627
dynasytan@evonik.com
www.dynasytan.com

Asia / Pacific

Evonik Taiwan Ltd.

Silanes Business Line
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 #247
FAX +886 227 17 2106
dynasytan@evonik.com
www.dynasytan.com