

Dynasytan® 1506

3-Aminopropylmethyldiethoxysilane, technical grade

Technical data

Properties and test methods	Value	Unit	Method
Density (20 °C / 68 °F)	approx. 0.9	g/cm ³	DIN 51757
Refractive index n (20,D)	approx. 1.43	-	DIN 51423
Viscosity (20 °C / 68 °F)	approx. 2 - 3 / 2.2 - 3.3	mPa·s / cSt	DIN 53015
Flash point	> 10 / > 50	°C / °F	DIN 51755

Registrations

Dynasytan® 1506

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

Dynasytan® 1506 is a bifunctional organosilane possessing a reactive amino group and hydrolyzable inorganic ethoxysilyl groups.

The dual nature of its reactivity allows **Dynasytan® 1506** to bind chemically to both inorganic materials (e.g. glass, metals, fillers) and organic polymers (e.g. thermo-sets, thermoplastics and elastomers), thus functioning as an adhesion promoter, surface modifier and as a reactant for product modification.

Dynasytan® 1506 is a yellowish liquid with an amine-like odor. It is soluble in alcohols and aliphatic and aromatic hydrocarbons. It contains approx. 20 % solvent naphtha (mineral oil, petroleum ether).

Safety and handling

Before considering the use of **Dynasytan®** 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.dynasytan.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

Dynasytan® 1506 is supplied in 25 kg and 180 kg drums.

In the unopened container **Dynasytan® 1506** has a shelf life of at least one year.

Properties and application

Dynasylan[®] 1506 is an important or even essential constituent in cold-curing phenolic and furan foundry resins to improve the flexural strength of sand/resin elements while maintaining a very long resin shelf life.

Further applications include:

- abrasives: as an additive to phenolic resin binders
- mineral filled composites: for pretreatment of fillers and pigments

Important product effects that can be achieved through the use **Dynasylan**[®] 1506 include:

- improved mechanical properties, e.g. strength, impact strength and modulus of elasticity
- improved moisture resistance

Dynasylan[®] 1506 can also improve such processing properties as

- increased filler loading

Reactivity

In the presence of water, the ethoxy groups of **Dynasylan**[®] 1506 hydrolyze to produce ethanol and reactive silanol groups which can bond to a variety of inorganic substrates. The organophilic amino group of **Dynasylan**[®] 1506 can react with a suitable polymer.

The hydrolysis of **Dynasylan**[®] 1506 takes place autocatalytically. Due to the solvent content, clear hydrolysates cannot be obtained. The pH of aqueous solutions is about 11.

Examples of suitable inorganic substrates are 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**[®] 1506 may be used with such polymers as phenolic and furan resins.

Dynasylan[®] 1506 can undergo reactions with ketone or ester solvents. The silane or silanized substrates can react with carbon dioxide to form the corresponding carbonates or carbamates, respectively.

This information and all technical and other advice are based on Evonik's present knowledge and experience. However, Evonik assumes no liability for such information or advice, including the extent to which such information or advice may relate to third party intellectual property rights. Evonik reserves the right to make any changes to information or advice at any time, without prior or subsequent notice. EVONIK DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES, WHETHER EXPRESS OR IMPLIED, AND SHALL HAVE NO LIABILITY FOR, MERCHANTABILITY OF THE PRODUCT OR ITS FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE), OR OTHERWISE. EVONIK SHALL NOT BE RESPONSIBLE FOR CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS) OF ANY KIND. It is the customer's sole responsibility to arrange for inspection and testing of all products by qualified experts. Reference to 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.

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
dynasytan@evonik.com
www.dynasytan.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
dynasytan@evonik.com
www.dynasytan.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
dynasytan@evonik.com
www.dynasytan.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
dynasytan@evonik.com
www.dynasytan.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
dynasytan@evonik.com
www.dynasytan.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
dynasytan@evonik.com
www.dynasytan.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
dynasytan@evonik.com
www.dynasytan.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
dynasytan@evonik.com
www.dynasytan.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
dynasytan@evonik.com
www.dynasytan.com