

Product Information

Dynasylan® F 8815

Modified fluoroalkyl siloxane, water borne

CAS NUMBER

confidential

PRODUCT DESCRIPTION

Dynasylan® F 8815 is a fluoroalkylfunctional water-borne oligosiloxane which acts as a surface modification agent on oxidic, carboxy- and hydroxyfunctional substrates for example ceramic, natural fibers like cotton or leather.

Dynasylan® F 8815 is a yellowish, slightly turbid liquid. The product can be mixed with water to any desired concentration.

Dynasylan® F 8815 is a trifunctional organic compound: The reactive silanol groups can bind chemically to an inorganic substrate. Aminoalkyl-functional substituents provide solubility in water. The fluoroalkyl-functional groups impart an extremely low specific surface energy once the siloxane is homogeneously distributed on the substrate.

Similar coatings with good hydro- and oleophobicity can be obtained with commercially available fluorocarbon compounds. A general advantages of Dynasylan® F 8815 is the ability to create a chemical bond to the substrate system. Subsequent horizontal crosslinking then takes place forming 2- and 3-dimensional networks.

Thus starting from very low concentrations Dynasylan® F 8815 forms chemically, thermally and mechanically stable coatings.

Typical Properties

Property	Unit	Value
Boiling Point, min. (1.013 hPa) ASTM D-1120	°C	98
Chemical Name		aqueous silane oligomer, hydro- and oleophobic
Density DIN 51757 (@20 °C)	g/cm ³	1.058
Freezing Point ISO 3841	°C	-1
Viscosity (20 °C)	mPa·s	1.6

The data represents typical values (no product specification)

TYPICAL APPLICATIONS

Dynasylan® F 8815 can be used in a great variety of applications.

Examples:

- Additive for sol-gel/ hybrid systems
- Modification of paints and varnishes
- Hydrophobation of leather
- Water- and oil-repellent, easy-to-clean treatment of textiles

DOSAGE

Substrate surfaces need to be absolutely clean and degreased before treatment! Dynasylan® F 8815 can be mixed with water in any proportion. Before using the product must be mixed thoroughly to homogenize it. The exact concentration required may slightly vary upon the desired application. A ready-for-use solution can be stored for several days. Textiles such as cotton can be dipped in or sprayed with a 5-15 wt.-% aqueous solution of Dynasylan® F 8815. The dipping time which corresponds to the reaction time should be 0.5-10 minutes. A good hydrophobic effect on leather can be obtained by polishing the Dynasylan® F 8815 on to the material. A thin polysiloxane

coating is formed and its specific properties emerge within a few hours at room temperature. The crosslinking process can be accelerated by heating (80-150 °C). Hydro- and oleophobic properties can be determined by measuring the static contact angle.

HANDLING & PROCESSING

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 on our website <https://silanes.evonik.com/en> or upon request from your local representative, customer service or from Evonik Operations GmbH, Product Safety Department, E-MAIL sds-hu@evonik.com.

PACKAGING

Dynasylan® F 8815 is supplied in 25 kg or 200 kg drums.

STORAGE

Dynasylan® F 8815 should be protected from freezing and temperature above 40 °C.

SHELF LIFE

In the original closed container, the shelf life of Dynasylan® F 8815 is min. 12 months from delivery.

Registration Listings

Registry	Status
Australia (AIIC)	No
Canada (DSL)	No
China (IECSC)	Yes
EU (REACH)	Exempted
European Union (EINECS/ELINCS)	Yes
Japan (ENCS)	No
South Korea (KECL)	Yes
Philippines (PICCS)	No
United States of America (TSCA) (Spraying is prohibited)	Yes

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