Product Information

Dynasylan® HYDROSIL 2627

aqueous oligomeric aminoalkyl-functional silane hydrolysate

PRODUCT DESCRIPTION

Dynasylan® HYDROSIL 2627 is an aqueous oligomeric aminoalkyl-functional silane hydrolysate. It is a colorless to slightly yellowish aqueous solution with an amine-like odour, miscible with alcohols or water.

Dynasylan® HYDROSIL 2627 can be diluted with water in all proportions (stirring for at least 1 h at RT). During dilution, the oligomeric structure changes and the number of SiOH groups increases. The hydrolysates are long-term stable.

Typical Properties

Property	Unit	Value
Color ISO 6271; Unit: mg Pt-Co/l		< = 40
Density (20 °C) DIN 51757	g/cm³	1.0-1.1
Flash Point, min. DIN EN 22719	°C	95
pH Value (20 °C) DIN 19268		10.0-11.4
Viscosity (20 °C) DIN 53015	mPa·s	≤10

The data represents typical values (no product specification)

TYPICAL APPLICATIONS

Dynasylan® HYDROSIL 2627 is a aqueous oligomeric aminoalkyl-functional silane hydrolysate, in which the silanol groups can be bonded to an inorganic substrate and the organophilic amino group can interact with a suitable polymer or resin.

Examples of suitable inorganic substrates are:

- glass, glass fibers, glass beads and glass wool
- mineral wool
- metals
- and various fillers like quartz, wollastonite or ATH.

Examples of suitable polymers and resins are:

- Thermosets like epoxy, phenolic, furanic and melaminic resins
- Thermoplastics like PA, PBT, EVA, PPS, MAPE, MAPP, PVB, acrylates
- Elastomere like silicones

Dynasylan® HYDROSIL 2627 finds application in many industries. Advantages arise in water-based systems.

Examples are:

- as a glass and metal primer
- as a size constituent of glass fiber/glass fabric composites or mineral wool insulating materials
- as an additive to foundry resins and abrasives
- as a pretreatment or an additive to mineral-filled thermoplastic compounds
- as an additive for adhesives and sealants to improve adhesion to the substrate
- as an additive and/or primer for paints and varnishes to improve adhesion to the substrate

Product Composition

Product Composition	Unit	Value
Nitrogen (N_2) Content SAA 1078, average, measured as NH2	wt%	2.0
Solids Content DIN -38409-H1-1	wt%	19-21

The data represents typical values (no product specification)

BENEFITS & ADVANTAGES

The particular advantages of Dynasylan® HYDROSIL 2627 compared with the corresponding monomeric amino- or alkyl-functional alkoxysilanes are:

- Alcohol content of ≤ 1% guarantees nonflammability, safe handling and minimal volatile organic constituents emisssion.
- No hydrolysis chemistry is needed as Dynasylan® HYDROSIL 2627 is a ready-to-use aqueous silane hydrolysate.
- Easily diluted with water to adjust to target concentration.
- Adaptable to a broad pH range.

Important product effects that can be achieved by using Dynasylan® HYDROSIL 2627 are:

- Improved mechanical properties - flexural strength, tensile strength, impact strength and modulus of elasticity.
- Improved resistance - to moisture and corrosion.
- Improved adhesion - by excellent surface wetting of inorganic substrates and optimal reaction with organic polymers.

Dynasylan® HYDROSIL 2627 helps to improve processing properties such as:

- Nonflammability - making almost no particular equipment safety precautions necessary.
- Better filler dispersion - leading to increased filler content during compounding.

HANDLING & PROCESSING

Before considering the use of Dynasylan® products please read their actual 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.

Please consult your local Evonik representative to discuss exact handling (e.g. dilution, wetting, curing temperature) of Dynasylan® HYDROSIL 2627 with a technical expert to achieve the best possible results in your application.

PACKAGING

Dynasylan® HYDROSIL 2627 is supplied in 25 kg PE cans, 211 kg drums and 1.000 kg IBC.

STORAGE

It is recommended to store Dynasylan® HYDROSIL 2627 above 4°C.

However, singular freezing does not influence the product quality. Frozen product is re-useable after complete thawing and homogenization. Just stirring is sufficient for homogenization.

Dynasylan® HYDROSIL 2627 has a flash point > =95°C and can be stored and transported advantageously according to different local requirements, compared to flammable liquids (Category 2, 3 and 4), as the most established monomeric alkoxysilane materials are.

SHELF LIFE

Dynasylan® HYDROSIL 2627 has a shelf life of minimum 12 months from delivery in an originally sealed can, drum or IBC.

Registration Listings	
Registry	**Status**
EU (REACH)	Exempted
Philippines (PICCS)	Information on Request
Taiwan (TCSI)	Yes
USA (TSCA)	Yes

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