

Product Information

Dynasylan® HYDROSIL 2926

aqueous oligomeric diol-functional silane hydrolysate

PRODUCT DESCRIPTION

Dynasylan® HYDROSIL 2926 is an aqueous oligomeric diol-functional silane hydrolysate. It is a colorless to slightly yellowish aqueous solution and miscible with alcohols or water.

Dynasylan® HYDROSIL 2926 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 |
|--|-------------------|---|
| Appearance | | Dynasylan® HYDROSIL 2926 is a colorless liquid. |
| Color ISO 6271 | | ≤20 mg Pt-Co/l |
| Density (20 °C) DIN 51757 | g/cm ³ | 1.08-1.10 |
| Flash Point DIN EN 22719 | °C | ≥95 |
| Melting Point max. value, derivative from Pour Point determination according to EN IS 3016 / 2019) | °C | <-1 |
| pH Value (20 °C) DIN 19268 | | 2.5-3.0 |
| Viscosity (20 °C) DIN 53015 | mPa·s | ≤15 |

The data represents typical values (no product specification)

TYPICAL APPLICATIONS

Dynasylan® HYDROSIL 2926 is a bifunctional organic compound in which the silanol groups can be bonded to an

inorganic substrate and the organophilic diol-functional 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 or 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 2926 finds application in the products of 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 |
|-----------------------|------|-------|
| Solids Content | wt% | 30-34 |

The data represents typical values (no product specification)

BENEFITS & ADVANTAGES

The particular advantages of Dynasylan® HYDROSIL 2926 compared with the corresponding monomeric epoxyfunctional alkoxysilanes are:

- Alcohol content of $\leq 1\%$ guarantees nonflammability, safe handling and minimal volatile organic constituents emission.
- No hydrolysis chemistry is needed as Dynasylan® HYDROSIL 2926 is a ready-to-use aqueous silane hydrolysate.
- Easily diluted with water to adjust to target concentration.
- Adaptable in a broad pH range.

Important product effects that can be achieved by using Dynasylan® HYDROSIL 2926 are:

- Improved mechanical properties, e.g. flexural strength, tensile strength, impact strength, 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 2926 helps as well 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 refer to your Evonik representative to discuss exact handling (e.g. dilution, wetting, curing temperature) of Dynasylan® HYDROSIL 2926 with a technical expert to achieve the best possible results.

PACKAGING

Dynasylan® HYDROSIL 2926 is supplied in 25 kg PE can, 200 kg drum and 1.000 kg IBC.

STORAGE

It is recommended to store Dynasylan® HYDROSIL 2926 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 2926 has a flash point $\geq 95^{\circ}\text{C}$ and can be stored and transported accordingly with different local requirements, compared to flammable liquids (Category 2, 3 and 4), as the most established monomeric alkoxysilane materials are.

SHELF LIFE

Dynasylan® HYDROSIL 2926 has a shelf life of minimum 12 months from delivery in an originally sealed can, drum or IBC.

Registration Listings

| Registry | Status |
|---------------------|------------------------|
| Australia (AIIC) | Yes |
| Canada (DSL) | Yes |
| China (IECSC) | Yes |
| EU (REACH) | Exempted |
| Japan (ENCS) | Information on Request |
| South Korea (KECL) | Yes |
| Philippines (PICCS) | Yes |
| Türkiye (KKDIK) | Pending |
| Taiwan (TCSI) | Yes |
| USA (TSCA) | Yes |

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