

Product Information

Dynasylan® SILBOND® H-4

Ethyl polysilicates binder

PRODUCT DESCRIPTION

Dynasylan® SILBOND® H-4 is a clear, low-viscosity pre-hydrolyzed ethyl polysilicate binder that has been designed for the precision investment casting industry. The silica content ranges from 17.5% to 19.0% (as SiO₂).

Typical Properties

Property	Unit	Value
Appearance		Clear Liquid
Boiling Point, min.	°C	122
Density (20 °C)	g/cm ³	0.900-0.920
Flash Point, min.	°C	13
Viscosity (20 °C)	mPa·s	5.0

The data represents typical values (no product specification)

TYPICAL APPLICATIONS

It is well suited for use with alkaline refractories, and in ceramic shell and dip casting applications.

Product Composition

Product Composition	Unit	Value
Silicon Dioxide (SiO ₂) Content	wt%	17.5-19.0

The data represents typical values (no product specification)

BENEFITS & ADVANTAGES

Dynasylan® SILBOND® H-4 can be used, as delivered, to make ceramic molds for the Precision Investment Casting industry.

The degree of hydrolysis and acidity have been optimized for the required reactivity and sufficient storage stability.

The hydrolysis and condensation has been started during the production of the binder. Through a shift in the pH this

process is accelerated. This shift is achieved by addition of fillers, pigments, additive, or through the evaporation of solvent or exposure to atmospheric moisture. The resulting silicic acid gel cures rapidly at ambient temperatures in air. The process of curing can be accelerated through the addition of alkali catalysts.

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://www.evonik.com/en/company/businesslines/se.html> 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® SILBOND® H-4 could be available in pails, drums, totes and tanker quantities.

Please ask for further details.

SHELF LIFE

In unopened container Dynasylan® SILBOND® H-4 has a shelf life of min. 6 months from date of manufacture.

Registration Listings

Registry	Status
Australia (AIIC)	Yes
Canada (DSL)	Yes
China (IECSC)	Yes
EU (REACH)	Yes
Japan (ENCS)	Yes
South Korea (KECL)	Yes
New Zealand (NZIoC)	Yes
Taiwan (TCSI)	Yes

Registration Listings

Registry

Status

USA (TSCA)

Yes

Disclaimer

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