

## Product Information

# Dynasylan® SILBOND® H-181C

## Ethyl polysilicates binder

### CAS NUMBER

confidential

### PRODUCT DESCRIPTION

Dynasylan® SILBOND® H-181C is a clear, low-viscosity pre-hydrolyzed ethyl polysilicate binder that has been designed for use in precision investment casting applications. The silica content (as SiO<sub>2</sub>) ranges from 18.0% to 19.0%. This binder contains isopropyl alcohol, which makes it well suited for applications in which slower cure is desired.

#### Typical Properties

Property	Unit	Value
Appearance		Clear Liquid
Color		Colorless
Density (20 °C)	g/cm <sup>3</sup>	-0.890-0.910
Flash Point, min.	°C	11.7
Freezing Point	°C	-84
Odor		faint inherent
Viscosity (20 °C)	mPa·s	3.8-5.0

The data represents typical values (no product specification)

### TYPICAL APPLICATIONS

Dynasylan® SILBOND® H-181C can be used, as delivered, to make ceramic molds for the Precision Investment Casting industry. Dynasylan® SILBOND® H-181C contains isopropyl alcohol, which makes it well suited for applications in which slower cure is desired.

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

#### Product Composition

Product Composition	Unit	Value
Silicon Dioxide (SiO <sub>2</sub> ) Content	wt%	18.0-19.0

The data represents typical values (no product specification)

### BENEFITS & ADVANTAGES

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://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](mailto:sds-hu@evonik.com).

### PACKAGING

Dynasylan® SILBOND® H-181C could be available in pails, drums, totes and tanker quantities.

Please ask for further details.

### SHELF LIFE

In unopened container Dynasylan® SILBOND® H-181C has a shelf life of min. 6 months from date of manufacture.

#### Registration Listings

Registry	Status
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Australia (AIC)	Yes
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Canada (DSL)	Yes
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China (IECSC)	Yes
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EU (REACH)	Yes
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Japan (ENCS)	Yes
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South Korea (KECL)	Yes
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#### Registration Listings

Registry	Status
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New Zealand (NZIoC)	Yes
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Philippines (PICCS)	Yes
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Taiwan (TCSI)	Yes
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United States of America (TSCA)	Yes
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#### Disclaimer

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#### Evonik Operations GmbH

Smart Effects  
Rodenbacher Chaussee 4  
63457 Hanau  
Germany  
ask-se@evonik.com  
ask-se-asia@evonik.com  
ask-se-america@evonik.com  
[www.evonik.com/smarteffects](http://www.evonik.com/smarteffects)