Product Information

Dynasylan® SILBOND® H-18IC

Ethyl polysilicates binder

PRODUCT DESCRIPTION

Dynasylan® SILBOND® H-18IC 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_2) 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/cm³	~0.890-0.910
Flash Point	°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-18IC can be used, as delivered, to make ceramic molds for the Precision Investment Casting industry. Dynasylan® SILBOND® H-18IC 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_2) 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://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-18IC could be available in pails, drums, totes and tanker quantities.

Please ask for further details.

SHELF LIFE

In unopened container Dynasylan® SILBOND® H-18IC 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

Registration Listings	
Registry	**Status**
Philippines (PICCS)	Yes
Taiwan (TCSI)	Yes
USA (TSCA)	Yes

Disclaimer

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