Product information

Dynasylan® SILBOND® H-4

Ethyl polysilicates

Technical Data

Properties and test methods	Unit	Value
Physical Form	-	Clear Liquid
Density (20 °C)	g/cm^3	0.900-0.920
Viscosity (20 °C)	mPa·s / cSt	5.0
Boiling Point	°C/ °F	122 / 252
Flash Point	°C/ °F	13 / 56
Silica Content (as SiO_2)	% by wt	17.5 - 19.0

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 SiO_2). It is well suited for use with alkaline refractories, and in ceramic shell and dip casting applications.

Safety and handling

Before considering the use of Dynasylan® Silbond® 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 after registration on our website www.dynasylan.com or upon request from your local representative, customer service or from Evonik Resource Efficiency GmbH, Product Safety Department, E-MAIL sds-hu@evonik.com.

Packaging, storage and shelf life

Dynasylan® SILBOND® H-4 could be available in pails, drums, totes, and tanker quantities.

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

Please ask us for further details.

Properties and applications

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.

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