

HANSA SFA 11730 Hydride modified siloxanes

Description

The crosslinkers of the HANSA SFA 11 series are polydimethylsiloxanes with Si-H groups on the chain, while the HANSA SFA 13 series additionally have terminal Si-H groups.

Both materials are typically used in platinum catalyzed crosslinking reactions with vinyl siloxanes in addition curing elastomers. They can also be used in the synthesis of organo-modified silicone products for a large group of applications.

Key Features

- Crosslinker
- side-modification
- Good UV stability
- No shrinkage during crosslinking

Key Applications

- Intermediate for addition curing formulations

Use and Cure Information

The preferred catalyst for the Hydrosilylation reaction is platinum catalyst from the ALPA-KAT series. It is advised to determine the ratio of hydride functional siloxane and the desired reaction component beforehand. Especially when using filled system, a hydride excess is needed.

When handling Si-H containing materials make sure to use equipment with dedicated charging and vents systems to prevent contamination with other materials that promote side reactions and the generation of hydrogen gas. For more information see the MSDS.

Reactions of Si-H materials are usually exothermic and depending on the concentration of the Si-H material in the system. When producing organo-modified silicone products it is important to monitor the temperature early in the reaction step to avoid a potentially dangerous situation.

When formulating addition curing elastomers make sure that the platinum catalyst is not in the same component as the Si-H fluid.

All materials of the HANSA SFA 1 series are stable at ambient temperature under the exclusion of water.

Health & Safety

Si-H modified silicone compounds are reactive under certain conditions and care is required when handling these materials. They may evolve hydrogen on contact or when mixed with strong acids or bases; amines; primary or secondary alcohols and water in the presence of acids, bases, or catalytic metals; some catalytic and reactive metals; or metal salt forming compounds. When contacting these materials, Si-H compounds can rapidly evolve hydrogen gas and form flammable and explosive mixtures in air. Si-H products used in platinum-catalyzed addition-curing systems, such as Si-H elastomers, can also release flammable and explosive hydrogen gas if these products are combined with each other or with incompatible materials.

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Property

Product

Hydride content %

0.73 %

Uncured Product

Color

**Transparent
Additon cure**

Cure Type

Non-Volatile Content (%)

> 99

Shelf Life

12 mths

Ultralow cyclic content

Yes

Viscosity

Brookfield

40 cP

Cured Product

Density

BS ISO 2781

0.97 g/cm3

Solubility

Solubility - Water

insoluble

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The CHT technical service department is available to offer further information and advice and should it be needed to look at modifying current products or custom formulate a new one to meet your specific requirements. Please contact the technical service department.

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