

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.

Revision Date 29 Apr 2021

Revision No 1

Download Date 26 Apr 2024

Property	Test Method	Value
Product		
Color		Transparent
Hydride content %		0.73 %
Non-Volatile Content (%)		> 99
Shelf Life		12 mths
Ultralow cyclic content		Yes
Viscosity	Brookfield	40 cP
Uncured Product		
Cure Type		Additon cure
Cured Product		
Density	BS ISO 2781	0.97 g/cm3
Solubility		
Solubility - Water		insoluble

The content set out in the technical data sheet does not contain information upon which you should rely. It is provided for general information purposes only and does not constitute a product specification. You must obtain professional or specialist advice before taking any action based on the information provided in the technical data sheet. CHT make reasonable efforts to ensure that information set out in the technical data sheet is complete, accurate, and up-to-date. CHT do not, however, make any representations, warranties or guarantees (whether express or implied) that information set out in the technical data sheet is complete, accurate, or up-to-date or that the product will be suitable for your requirements. You should carry out your own testing to determine the applicability of such information and whether the product will be suitable. CHT reserve the right to modify the technical data sheet at any time. 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.

CHT Germany GmbH: Postfach 12 80, 72002 Tübingen, Bismarckstraße 102, 72072 Tübingen, Germany
Telephone: 07071/154-0, Fax: 07071/154-290, Email: info@cht.com, Homepage: www.cht.com / www.cht-silicones.com