Schill + Seilacher

Technical Data Sheet

STRUKSILON 8184

Silicone Stabiliser for Flexible PU–Slabstock Foam

Application Fields

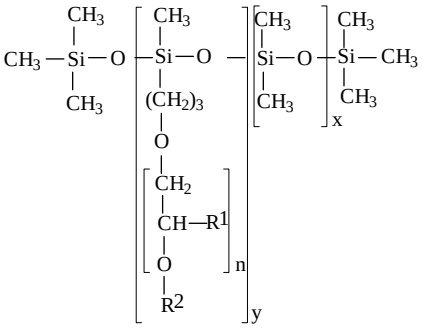
STRUKSILON 8184 was developed as stabiliser of medium/high potency for the production of conventional flexible polyurethane slabstock foam. It is especially recommended for foam with low to middle density based on polyether polyols.

STRUKSILON 8184 is applicable in systems for nearly all known flexible PU slabstock foam applications and technologies like production of seats, chairs, mattresses etc. in the furniture and automotive industry or for all kinds of damping devices.

Chemical and Physical Properties

According to its chemical structure STRUKSILON 8184 is a polyether modified polydimethyl siloxane resistant to hydrolysis.

General chemical structure:



R^1 : H (EO); CH_3 (PO)
R^2 : Methyl, Butyl
n : 1 - 50
x : 1 - 100
y : 1 - 20

The data given are typical values, which are not intended for use in preparing specifications. For test methods refer to the corresponding supplement.

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STRUKSILON 8184 is a clear, colourless to slightly yellow liquid of middle viscosity, has strong stabiliser properties and is miscible with water at room temperature.

Viscosity at 25°C	[mm²/s]	app. 500
Cloud Point	[°C]	app. 35
Density at 25°C	[kg/m^3]	app. 1015
Flash point (DIN EN ISO 2719)	[°C]	> 100
Refractive index -		app. 1.443

Technical Properties

STRUKSILON 8184 is a stabiliser of medium/high potency. Especially in low density foams STRUKSILON 8184 offers the right balance of enough potency to stabilize the foam even at high degrees of expansion, and the ability to fulfil the sometimes contradictory requirements of an excellent air flow, a fine cell size and high hardness of the foam. The medium to high potency opens the way to use STRUKSILON 8184 in a wide density range, starting from < 10 kg/m³. In a lot of cases in low density foams STRUKSILON 8184 offers the possibility to reduce the amount of silicone in comparison to most of the competitors materials, still having enough stabilizing power and additionally offering an increase of the hardness of the foams.
In the higher density foams a reduction of the silicone content in combination with a reduction of the tin level is recommend and excellent foam results can be achieved.
With this performance STRUKSILON 8184 is the optimal addition to our range of stabilizers for flexible slabstock foams. With respect to the potency and the use level of the material it is well fitting in the gap between STRUKSILON 8183 and STRUKSILON 8104.
Furthermore, STRUKSILON 8184 can be used in the box foaming process, as well as in continuous production of slabstock foams.

STRUKSILON 8184 can be used in combination with all usual co-blowing agents like methylenechloride or acetone. It is also well suited for the use in calcium carbonate filled formulations.

Recommended Dosage

Usually, STRUKSILON 8184 is generally applied in quantities of 0.7 to 1.8 php (parts on 100 parts polyol). We recommend to adjust the optimum dosage to the corresponding formula, type and amount of activators, catalysts, blowing agents and the activity of raw materials.

Product Safety and Handling

STRUKSILON 8184 is not a hazardous material for the purposes of hazardous materials regulations. STRUKSILON 8184 does not contain aminic components.
Further information regarding safety, toxicology, special properties of the product, transport and storage are given in the material safety data sheet.

Packaging, Storage and Transport

Storage stability	12 months in closed original containers if transported and stored at a temperature between 1 and 30°C.
Packaging	25 kg cans, 200 kg drums, 1000 kg containers (IBC)

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