

VESTANAT® HT 2500

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General description

VESTANAT HT 2500 is an aliphatic polyisocyanate based on hexamethylene diisocyanate (VESTANAT HDI). It contains isocyanurate groups and has a functionality of 3 to 4. VESTANAT HT 2500 is available as solvent grades as well as solvent free. Each is a low to medium viscosity liquid.

Specification

VESTANAT Property	HT 2500 L	HT 2500 E	HT 2500/100	HT 2500/LV	Unit	Test method
Non volatile matter	90 ± 1 ¹⁾	90 ± 1 ²⁾	Solvent free	Solvent free	% by wt.	ISO 3251
NCO content	19.6 ± 0.3	19.6 ± 0.3	21.8 ± 0.3	23.0 ± 0.5	% by wt.	ISO 11909
Viscosity at 23 °C	550 ± 150	500 ± 150	3000 ± 750	1200 ± 300	mPas	ISO 3219

Typical data

Density at 23 °C	~ 1.13	~ 1.13	~ 1.16	~ 1.16	–	ISO 2811
Colour (APHA)	≤ 40	≤ 40	≤ 40	≤ 40	–	ISO 6271
Flash point (closed cup)	~ 50	~ 50	~ 158	~ 158	°C	ISO 1523
VESTANAT HDI monomer	≤ 0.15	≤ 0,15	≤ 0.15	≤ 0.25	%	ISO 10283

¹⁾ dissolved in n-butyl acetate / solvent naphtha 100 = 1:1; other solution grades are available on request

²⁾ dissolved in n-butyl acetate

Properties and Applications

VESTANAT HT 2500 is used as a crosslinker for 2K-PUR paints based on suitable polyesters, acrylates, flexible medium-oil or short-oil alkyd resins and other OH-group containing resins. This way, polyurethane paints with outstanding weather resistance and light fastness are obtained. Blends of VESTANAT HT 2500 with VESTANAT T 1890 in 2K-PUR paints improve drying performance, surface hardness, pot life and chemical resistance against environmental etch.

Typical applications are automotive OEM and car repair paints, maintenance -, wood -, industrial- and plastic coatings.

VESTANAT HT 2500 can be diluted with aromatics and esters down to a solids content of approx. 40 % by wt. Solvents for diluting VESTANAT HT 2500 should in general be of urethane grade, i.e., the water content should be below 0.05 %. Protic solvents like alcohols or amines have to be avoided as well.

Catalysis

The basic reactivity of VESTANAT HT 2500 is lower compared to aromatic- and higher compared to cycloaliphatic polyisocyanates. If necessary, zinc octoate, tin- or bismuth- catalysts are recommended as a urethane catalyst.

Storage and Packaging

VESTANAT HT 2500 is moisture sensitive. It can be stored in unopened containers for at least 6 months at room temperature without loss of quality in accordance with the above specification.

VESTANAT HT 2500 grades are supplied in non-returnable drums with a net weight of 225 kg each and in non-returnable plastic containers (IBC) with a net weight of 1.000 kg (except VESTANAT HT 2500/100).

Safety and Handling

The product is used as raw material for the industrial manufacture of resins and hardeners for coating materials, adhesives, sealants and elastomers. The handling of such materials containing reactive polyisocyanates and residual monomeric diisocyanates requires appropriate protective measures. Therefore these products may be used only in industrial or professional applications. They are not suitable for use in homemaker (DIY) applications.

Please refer to our Safety Data Sheet.

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