

VESTANAT[®] HB 2640

43.13.340e / 03.17

General description

VESTANAT[®] HB 2640 is an aliphatic polyisocyanate and comprises the biuret of hexamethylene diisocyanate (VESTANAT[®] HDI). It provides a functionality of 3 to 4. VESTANAT[®] HB 2640 is available as solvent grades as well as solvent free.

Specification

VESTANAT [®] Property	HB 2640 MX	HB 2640 E	HB 2640/100	HB 2640/LV	Unit	Test method
Non volatile matter	75 ± 1 ¹⁾	75 ± 1 ²⁾	Solvent free	Solvent free	% by wt.	EN ISO 3251
NCO content	16.5 ± 0.3	16.5 ± 0.3	22.0 ± 0.3	23.0 ± 0.5	% by wt.	EN ISO 11909
Viscosity at 23 °C	250 ± 75	160 ± 50	10000 ± 2000	2500 ± 1000	mPas	EN ISO 3219

Typical data

Density at 23°C	~ 1.07	~ 1.07	~ 1.14	~ 1.13	g/cm ³	EN ISO 2811
Colour (APHA)	≤ 40	≤ 40	≤ 80	≤ 40	–	EN ISO 6271
Flash point (closed cup)	~ 38	~ 35	~ 181	~ 170	°C	EN ISO 1523
VESTANAT [®] HDI monomer	< 0.38	< 0.38	*	≤ 0.4	% by wt.	EN ISO 10283

¹⁾ dissolved in 1-methoxypropyl acetate-2 / xylene = 1:1; other solution grades are available on request

²⁾ dissolved in n-butyl acetate

³⁾ typically ≤ 0.5 %, but may increase during storage up to 1.2 %.

Properties and Applications

VESTANAT[®] HB 2640 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[®] HB 2640 with VESTANAT[®] T 1890 in 2K-PUR paints improve drying performance, surface hardness, pot life and chemical resistance against environmental impact.

Typical applications are maintenance -, wood -, industrial- and plastic coatings.

VESTANAT[®] HB 2640 can be diluted with aromatics and esters down to a solids content of approx. 40 % by wt. Solvents for diluting VESTANAT[®] HB 2640 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[®] HB 2640 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[®] HB 2640 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[®] HB 2640 grades are supplied in non-returnable drums with a net weight of 225 kg each (VESTANAT[®] HB 2640 MX and HB 2640 E: 215 kg) and in non-returnable plastic containers (IBC) with a net weight of 1.000 kg (except VESTANAT[®] HB 2640/100).

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 Material Safety Data Sheet.

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