

VESTAMIN[®] A 95

VESTAMIN A 95 is the approx. 50 % aqueous solution of a sodium salt of an amino functional sulfonic acid. It contains a primary and a secondary amino group and combines the properties of an emulsifier and chain extender in the production of aqueous PUR Dispersions. At room temperature, VESTAMIN A 95 is a low viscosity, transparent, slightly yellowish liquid with a slight aminic odour.

SPECIFICATION

Property	Value	Unit	Test method
Solids content	51 ± 2	% by wt.	DIN EN ISO 3251 (1h/120°C)
Amine number	260 ± 20	mg KOH/g	DIN 53 176 mod.

TYPICAL DATA

Property	Value	Unit	Test method
Equivalent weight	approx. 220	g	-
Density at 20°C	1.225	g/cm ³	DIN EN ISO 2811-2
Viscosity 20°C	< 20	m Pas	DIN EN ISO 3219
Colour (Gardner)	< 2	-	DIN EN ISO 4630
Vapour pressure at 20°C	23	hPa	
Flash point	> 100	°C	DIN EN ISO 2719
pH-value (20 g/l water at 20°C)	11 - 12		DIN ISO 976
Setting temperature	< -10	°C	DGF-C-IV-3A

PROPERTIES AND APPLICATIONS

Due to its chemical structure, the aliphatic diamine VESTAMIN A 95 can be used as chain extender in the manufacture of PUR dispersions. Whereas the sodium sulfonate works as an anionic emulsifier for PUR dispersions. It is recommended to employ the acetone process for the incorporation of VESTAMIN A 95.

The use of VESTAMIN A 95 leads to polyurethane dispersions with excellent stability against coagulation at non-alkaline conditions and thus also good compatibility to other anionic or non-ionic dispersions. Due to the low pH value, the hydrolytic stability of polyester based PUR dispersions is improved.

VESTAMIN A 95 should be imparted in the following way:

NMP-Process:

Charge VESTAMIN A 95 to the prepolymer at about 40°C. The temperature may reach up to approx. 60°C due to the exothermal reaction. Stir for further 5 minutes before dispersing.

Acetone-Process:

The prepolymer solution is diluted with acetone and heated to 59°C. Under vigorous stirring (shear rate ~ 12m/s) the VESTAMIN A 95 (50 % aqueous solution) is added fast and stirred for additional 30 min. VESTAMIN A 95 must be charged in one step in order to prevent the reaction of the isocyanate functional prepolymer with water. Under vigorous stirring deionized water (ambient temperature) is added.

At elevated temperature acetone / water are distilled off, beginning with moderate vacuum.

STORAGE AND PACKAGING

VESTAMIN A 95 is supplied in 200 kg and 30 l non returnable plastic drums. VESTAMIN A 95 can be stored in unopened containers for at least one year without a loss of quality in accordance with the above specification.

SAFETY AND HANDLING

Please refer to our Material Safety Data Sheet.

Marl, June 10, 2018; This data sheet replaces all former issues.

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