

VESTANAT[®] B 1358 A

43.13.017e / 04.13

General description

VESTANAT B 1358 A is a blocked, cycloaliphatic polyisocyanate. It is supplied as a 63 % solution in Solvesso 100*.

Specification

Property	Value	Unit	Test method
Non volatile matter	63 ± 1	% by wt.	DIN EN ISO 3251 (1,5 h 110 °C, < 2 hPa)
Viscosity at 23 °C	5.0 ± 1	Pa·s	DIN EN ISO 3219

Typical data

Solvents	–	Solvesso 100*	–	–
Free NCO content	< 0.1	% by wt.	DIN EN ISO 11 909	ASTM D 2572
Latent NCO content	approx. 8	% by wt.	DIN EN ISO 11 909 (modified)	
Splitting temperature	130	°C	–	–
Colour (Hazen)	≤ 150	–	DIN EN ISO 6271	–
Flash point (closed cup)	47	°C	DIN EN ISO 1523	ISO 1516
Vapour pressure at 20 °C	< 10	hPa	–	–

* Solvesso 100: blend of C₉/C₁₀ aromatics, boiling range 154 – 178 °C

Properties and Applications

VESTANAT B 1358 A is a blocked polyisocyanate for crosslinking of suitable hydroxylated resins, like polyester, acrylic and alkyd resins. VESTANAT B 1358 A may be classified as an exceptionally light fast and weathering resistant hardener. It is characterized by an excellent balance of reactivity and storage stability of the formulated paint.

Typical fields of application are:

- Exterior Can Coatings (overprint varnishes, printing inks, basecoats) in combination with polyesters of the DYNAPOL® LH-range characterized by good adhesion, colour stability and sterilisation resistance.
- Coil Coatings for exterior applications
- Automotive OEM topcoats with improved acid etch resistance
- Stone chip resistant automotive OEM primer/ surfacer

In principle it is possible to formulate PUR stoving paints which cure at temperatures ≥ 130 °C. It is recommended to use tin catalysts, e.g. dibutyl tin dilaurate (DBTDL), in concentrations of 0.1 – 0.5 % by weight calculated on total resin.

The properties of the cured coatings are decisively determined by the polyols employed. Due to the fact that VESTANAT B 1358 A imparts hard segments into a coating, it might be necessary to use additionally flexibilizing polyols. Recommendations are available on request.

For special purposes like different solvent cuts VESTANAT B 1358 is also available as a solvent free version (VESTANAT B 1358/100, Product Information no. 43.13.075e).

Table of curing conditions

In table 1 curing conditions determined by using 0.8 mm thick aluminum panels placed in a circulating air oven are listed. Stated temperatures refer to those of the circulating air in the stoving oven.

Tab. 1: Curing conditions of 1K PUR systems

System	Stoving times in minutes at temperatures of				
	130 °C	140 °C	150 °C	160 °C	180 °C
(with 0.5 % DBTDL on resin)					
VESTANAT B 1358 A/polyester (2.5 – 4 % OH)	55	35	15	10	5
VESTANAT B 1358 A/acrylic polyol (2.5 – 4 % OH)	25	15	10	8	4

Storage and Packaging

VESTANAT B 1358 A can be stored in unopened containers for at least one year without loss of quality in accordance with the above specification.

VESTANAT B 1358 A is supplied in non returnable 25 kg net cans and in non returnable 200 kg net drums.

Safety and Handling

Please refer to our Safety Data Sheet.

Evonik Resource Efficiency GmbH	Evonik Corporation	Evonik Speciality Chemicals Co., Ltd.
Paul-Baumann-Str. 1	Reource Efficiency	55, Chundong Road
45764 Marl	299 Jefferson Road	Xinzhuang Industry Park
Germany	Parsippany, NJ 07054-0677, USA	Shanghai, 201108, PR China
PHONE +49 2365 49-02	PHONE +1 973 929-8000	PHONE +86 21 6119-1000
FAX +49 2365 49-5030	FAX +1 973 929-8460	FAX +86 21 6119-1168
www.evonik.com/crosslinkers	www.evonik.com/crosslinkers	www.evonik.cn/crosslinkers
www.evonik.com/coatings	www.evonik.com/coatings	www.evonik.com/coatings
E-MAIL vesta@evonik.com	E-MAIL vesta@evonik.com	E-MAIL vesta@evonik.com

Replaces leaflet 43.13.017e / 12.01 and all former issues
Marl, April 26, 2013

DYNAPOL® / VESTANAT® = is a registered trademark of Evonik Industries AG or one of its subsidiaries

This information and all further technical advice are based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used