

## VESTANAT® B 1370

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### General description

VESTANAT B 1370 is a blocked, cycloaliphatic polyisocyanate. It is supplied as a solution of 60 % in n-butyl-acetate/xylene.

### Specification

| Property           | Value     | Unit     | Test method                      |
|--------------------|-----------|----------|----------------------------------|
| Solids content     | 60 ± 1    | % by wt. | ISO 3251 (1.5 h 110 °C, < 2 hPa) |
| Viscosity at 23 °C | 2.6 ± 0.5 | Pa·s     | ISO 3219                         |

### Typical data

|                          |            |                                   |                       |             |
|--------------------------|------------|-----------------------------------|-----------------------|-------------|
| Solvents                 | –          | n-butylacetate/<br>xylene (3 : 5) | –                     | –           |
| Free NCO content         | < 0.1      | % by wt.                          | ISO 11 909            | ASTM D 2572 |
| Latent NCO content       | approx. 8  | % by wt.                          | ISO 11 909 (modified) |             |
| Splitting temperature    | 130        | °C                                | –                     | –           |
| Density (25 °C)          | 1.03       | g/cm <sup>3</sup>                 | DIN 51 757            | ASTM D 2111 |
| Colour (APHA)            | ≤ 150      | –                                 | DIN/ISO 6271          | –           |
| Flash point (closed cup) | 28         | °C                                | DIN 53 213            | ISO 1516    |
| Vapour pressure at 50 °C | approx. 10 | hPa                               | –                     | –           |

### Properties and Applications

VESTANAT B 1370 is a blocked polyisocyanate for crosslinking of suitable hydroxylated resins, like polyester, acrylic and alkyd resins.

VESTANAT B 1370 may be classified as an exceptionally light fast and weathering resistant resin. 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  $\geq 130$  °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 the resin.

The properties of the cured coatings are decisively determined by the polyols employed. Due to the fact that VESTANAT B 1370 imparts hard segments into a coating, it might be necessary to use additionally flexibilizing polyols, recommendations are available on request.

## 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 1370 / polyester (2.5 – 4 % OH)      | 50  | 30     | 15     | 10     | 5      |
| VESTANAT B 1370 / acrylic polyol (2.5 – 4 % OH) | 30  | 15     | 10     | 8      | 4      |

## Storage and Packaging

VESTANAT B 1370 can be stored in unopened containers for at least one year without loss of quality in accordance with the above specification.

VESTANAT B 1370 is supplied in non returnable 25 kg net cans and in non returnable 200 kg net drums.

## Safety and Handling

Please refer to our Material Safety Data Sheet.

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

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