



BETAMATE™ 2810 LV

Short Description

2-component polyurethan adhesive with fast curing rate at room temperature, specially developed for structural bonding.

Properties

- Good adhesion to plastics, composites and painted surfaces
- Good adhesion to coated metal surfaces
- Accelerated adhesion at elevated temperatures
- High mechanical strength and elongation at break
- Low temperature dependancy of the modulus
- Glass transition temperature outside the application range

Application

All Dow Automotive products are primarily developed in co-operation with the automobile manufacturers, according to their needs and their specifications, they are approved for the specific applications as defined by the customer. The use of the product other than approved application have to be released in written form by the Technical Service of Dow Automotive Systems.

Technical Data

The following technical data and information should be considered as typical only and should not be used for specification purposes. Unless specified otherwise test are conducted at 23 °C/50% relative humidity.

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| Basis A Component | Isocyanate (Hardener) |
| Basis B Component | Polyol (Resin) |
| Colour Component A | black |
| Colour Component B | white |
| Density Component A | 1.12 g/cm ³ |
| Density Component B | 1.41 g/cm ³ |
| Mixing Ratio (by Volume A:B) | 1:1 / +/- 0.10 |
| Viscosity Component A | 30 g/min |
| (Extrusion, Ballan 4bar, 2mm nozzle) | |
| Viscosity Component B | 26 g/min |
| (Extrusion, Ballan 4bar, 2mm nozzle) | |
| Processing temperature | 18°C to 28°C ¹⁾ |
| Open time /tackfree time | 10 - 15min |
| Tensile strength (DIN EN ISO 527-2) | 8 MPa |
| Elongation at break (DIN EN ISO 527-2) | 230% |
| E-Modulus (DIN EN ISO 527-2) | 9 MPa |
| Lap shear strength (DIN EN 1465) after 7 days | 6.5 MPa ²⁾ |
| Lap shear strength (DIN EN 1465) after 1h | 0.3 MPa ²⁾ |
| G-Modulus (DIN EN 14869-2) | 2.5 MPa |
| Temperature stability | -40 bis 90°C - short term up to 160°C |
| Temperature stability | -40 bis 90°C (short term to 160°C) ; 1/2 hour |
| Glass transition temperature | -45°C |

Footnotes:

- 1) It should be noted that temperature has very high influence on reactivity/opentime of the adhesive
- 2) Bonding height: 2mm; Bonding area: 15x25mm; Glass-Glass; BETAPRIME 5061

**Bonding surface preparation**

All bonding surfaces must be free of dirt, dust, oil and grease. For the cleaning of paint, metal surfaces and plastics (including composites) we recommend BETACLEAN 3350, for glass and ceramic surfaces BETACLEAN 3300. Depending on the substrate, it may be necessary to prepare the adhesive surfaces with a primer or activator. For the selection of the appropriate primers or activators, we recommend that you consult our Technical Service.

When processing BETAMATE 2810LV in combination with primer systems BETAPRIME 5404, BETAPRIME 5500 or BETAPRIME 5061, note the following: Flash-off at least 1 min. Reactivation of the primer is necessary if adhesive is not applied within 10min. Reactivation can be done one time with the same primer.

Application equipment

a) 2x290ml Cartridges: Manual application with static mixers using our pneumatic BETAPOWER application gun or with dynamic mixers using our electrical BETAGUN application gun

b) Pails and drums: application with a 2-component dosing system either with static mixing head or with dynamic mixing head

Upon request our application specialists can give support to select the right application system for your application

Resistance to chemicals

Highly resistant to aqueous chemicals, petrol, alcohol and mineral oils; conditionally to esters, ketones, aromatics and chlorinated hydrocarbons.

Cleaning

Uncured BETAMATE 2810LV can be removed with BETACLEAN 3000. Cured BETAMATE 2810LV can only be removed mechanically. Contaminated equipment can be cleaned with BETACLEAN 3000.

Shelf life

6 month at +5°C to +25°C . Store cool and dry

Containers

2x290ml Cartridge Set, 22lt Pails, 200lt Drum

Health and Safety

The use of polyurethane adhesives is generally harmless and as long as the basic rules for safe handling of chemicals are applied. However, the direct contact of uncured adhesive with food and food containers should be avoided. It is mandatory to use protective measures in order to prevent direct skin contact. Suitable gloves and eye protection are essential. Should the skin come into contact with uncured adhesive, it must be rinsed first with warm water and then cleaned thoroughly with conventional soap. Cleaning skin with solvents must be avoided. It is essential to ensure good ventilation. For detailed protective measures refer to the Material Safety Data Sheets.

Dow Automotive Systems Quality Assurance

Quality is our utmost goal. Dow Automotive works according to a modern quality management system conforming to ISO/TS 16949:2002. All sites of Dow Automotive are conforming to ISO 14001:2004.

All statements, technical information and recommendations contained in this document are based on tests that we believe are reliable.

However, the accuracy or completeness of the statements, information and recommendations is not guaranteed, as before using, the user should determine the suitability of the product for user's intended purpose.

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