

# BETAMATE™ 1060N US

## Structural Adhesives

BETAMATE™ 1060N is a one component, epoxy based adhesive especially developed for the body shop. The adhesive is used in the car to increase the operation durability, the crash performance and the body stiffness.

### Properties

- Excellent adhesion to automotive steels, including coated steels and pretreated aluminium with good tolerance to oil and drylubes
- Stiffness and crash stability increase of the entire car body
- High durability of the adhesive and the adhesive bond
- Protection of the metal and weld points against corrosion due to its sealing capability
- Compatible with other mechanical and thermal joining techniques
- Compatible with the electrocoat process and wash-off resistant
- Precurable
- Up to eight weeks open time in the uncured bond
- UV light detectable

### Product information

Colour	Blue	
Basis	epoxy resin	
Density	1.3 g/cm <sup>3</sup>	ISO 845
Solid content	≥99 %	

### Rheological properties

Viscosity, Casson	≥75 <sup>[1]</sup> Pa.s
[1]: 50°C, D(1s) 1.075	

### Application technique

Open time	≤2 h
Processing temperature	30 - 65 °C

### Cure conditions

Curing time	0.5 h
Cure temperature	180 °C

### Typical mechanical properties

Tensile Modulus	2900 MPa	ISO 527-1/-2
Stress at break	40 MPa	ISO 1798
Strain at break	4 %	ISO 527-1/-2
Lap shear strength, 3 days	≥26 MPa	DIN EN 1465
Peel strength, T-Peel	9 N/mm	ISO 11339



# BETAMATE™ 1060N US

## Structural Adhesives

Peel strength, Impact-Peel 23 N/mm ISO 11343

### Thermal properties

Glass transition temperature, 10°C/min 110 °C ISO 11357-1/-3

### Storage and stability

Shelf life 9<sup>[2]</sup> months

[2]: storable at temperatures below room temperature

### Characteristics

Compatibility Metals

### Additional information

Adhesives

#### Bonding Surface Preparation

The material has been designed to tolerate up to 5 g/m<sup>2</sup> of surface oil.

#### Application Tool

Cartridges: hand-operated or pneumatic heated gun with mechanical piston.  
Drums, pails: heated pumping system.

#### Application

The product is applicable as a bead. It can be applied with the following parameters:

application speed : up to 300 mm/s

temperatures recommended:

follower plate: 30 - 40°C

follower plate – dozer : per heating zone approx. 5°C heat increase. 40 - 55°C

nozzle : 50 - 65°C

For an optimum tack of the adhesive, the parts to bond should be stored at 15°C or higher. In case of an application break longer than 2 hours the heating of the application equipment should be switched off.

#### Cleaning

Uncured material can be removed with BETACLEAN 3510. Attention: The contact with bonded areas should be avoided.

#### Health and Safety



# BETAMATE™ 1060N US

## Structural Adhesives

The material curing reaction is exothermic. If the material is held in bulk the reaction is accompanied by a rapid build-up of exothermic heat. To avoid the risk of this bulk exothermy, containers of the material should in no circumstances be heated by e.g. hot plates or simple drum heaters. If heating a bulk quantity of the material is considered necessary, advice should be sought.

### DuPont

The information set forth herein is furnished free of charge, is based on technical data that DuPont believes to be reliable, and represents typical values that fall within the normal range of properties. This information relates only to the specific material designated and may not be valid for such material used in combination with other materials or in other processes. It is intended for use by persons having technical skill, at their own discretion and risk. This information should not be used to establish specification limits nor used alone as the basis of design. Handling precaution information is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards and comply with applicable law. Since conditions of product use and disposal are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any product, evaluation under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate or a recommendation to infringe on patents.

**CAUTION:** Do not use DuPont materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract or other acknowledgement that is consistent with the DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative.

DuPont's sole warranty is that our products will meet our standard sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DUPONT SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR NON-INFRINGEMENT. DUPONT DISCLAIMS LIABILITY FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.