

BETAMATE™ 1480v203G

Structural Adhesives

BETAMATE™ 1480V203G free is a one component, thermally pre- and hardening epoxy based adhesive which was specially developed for the body shop. The adhesive is used in the car to increase the operation durability, the crash performance and the body stiffness of the vehicle.

BETAMATE™ 1480V203G free is characterized by a very good process- and storage stability. The adhesion to the types of steel used in the automobile construction, including coated steels and pretreated aluminium, is excellent. It shows a very good compatibility with a wide variety of oils and lubricants. The rigidity and crash stability of the vehicle are significantly increased. The adhesive is suitable for protecting the metal and the weld points from corrosion and can serve as a seal. It is compatible with other thermal mechanical joining processes, electrocoat processable and wash-off resistant. The maximum storage time of BETAMATE™ 1480V203G free in the joined and uncured bond under conditions between 18°C – 23°C and 30% - 50% r.h. is 6 weeks.

Product information

Colour	Purple -	
Density	1.24 g/cm ³	ISO 845
Solid content	≥99 %	

Uncured properties

Viscosity, Bohlin, 50°C, D(1s) 1.075	53 Pa.s
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Cure conditions

Curing time	0.5 h
Cure temperature	180 °C

Cured properties

Stress at break	30 MPa	DIN 53504
Strain at break	12 %	DIN 53504
Lap shear strength, 3 days	≥30 ^[1] MPa	DIN EN 1465

[1]: DC01; 1.5mm; Adhesive layer thickness 0.2mm; Bonded area 25x10mm

Typical mechanical properties

Tensile Modulus	1500 MPa	ISO 527-1/-2
Poisson's ratio	0.43 -	
Peel strength, T-Peel	7 ^[2] N/mm	ISO 11339
Peel strength, Impact-Peel	40 ^[3] N/mm	ISO 11343

[2]: DX56 D Z100; 0.78mm; Adhesive layer thickness 0.2mm; Bonded area 25x100mm

[3]: DC01; 1.0mm; 2m/s; Adhesive layer thickness 0.2mm; Bonded area 20x30mm

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Storage and stability

Shelf life

6^[4] months

[4]: <30°C

Characteristics

Compatibility

Metals

Additional Information

Adhesives

Surface Preparation

The material has been designed to tolerate up to 5 g/m² of surface oil.

Application

All Dupont T&I Adhesives 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 must be released in written form by the Technical Service of DuPont T&I Adhesives.

Application Equipment

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

Application Parameter

The product cold pumpable, can be applied as bead / swirl / jet spray. The ideal material temperature for conveying is >18°C. It can be processed with the following parameters:

Application speed: up to 500 mm/s

Temperature follower plate: unheated recommended; minimum 18°C; max. 35-40°C

Temperature follower plate to doser: Per heating zone 5°C heat increase, max temperature at doser 55°C

Temperature nozzle: 45 - 65°C

For an optimum tack of the adhesive, the parts to bond should be stored at 16°C or higher. In case of an application break longer than 30 minutes 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!



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Page: 3 of 3

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