



Macroplast EP 3299 / EP 5299

May 2013

PRODUCT DESCRIPTION

Macroplast EP 3299 / EP 5299 provides the following product characteristics:

Technology	Epoxy
Product Type	Epoxy adhesive
Cure	Polymerisation
Components	Two-component
Application	General assembly
Appearance (Mixture)	Amber
Mixing Ratio, by weight	100 : 35
Comp. A : Comp. B	

Application Areas

Macroplast EP 3299 / EP 5299 is a long pot life, low viscous, general purpose, two-component adhesive.

The product is used in water and food applications.

TECHNICAL DATA

Component A:

Viscosity at 25 °C, Pa.s TP-10W	2.0 to 3.6
Specific Gravity, g/cm³ TP-13W	1.12 to 1.18

Component B

MACROPLAST EP 5299:

Viscosity at 25 °C, Pa.s TP-10W	2.5 to 4
Specific Gravity, g/cm³ TP-13W	0.92 to 0.98

Mixture (Component A + B):

Pot life (100g, 25 °C), hrs.	6
Shore D hardness after 2 hrs at 120 °C TP-49W	min. 80
Tensile LSS, PBT/PBT, MPa	4.7
Tensile Strength, MPa	51
Elongation, %	7

Coefficient of Thermal Expansion below T_g, NA
10⁻⁶ K⁻¹
TP-525W

Coefficient of Thermal Expansion above T_g, 149
10⁻⁶ K⁻¹
TP-525W

Glass Transition, °C
TP-525W

E-modulus at 35 °C, MPa	2,457
E-modulus at 50 °C, MPa	1,871
E-modulus at 75 °C, MPa	151
E-modulus at 100 °C, MPa	14
E-modulus at 150 °C, MPa TP-526W	14

Cure Schedule:

Overnight at room temperature. Full cure in approximately 48 hours at room temperature.

Cure rate may be accelerated by the introduction of a

moderate amount of heat (100°C). A typical cure schedule could be 24 h at room temperature + 2 h at 120°C.

*On Composites this adhesive is capable of strengths similar to that achieved on steel but in most cases delamination on the composite will occur before this load is reached. On Aluminium & Copper alloys the modulus and thickness of the metal will define the ultimate bond strength achieved.

DIRECTIONS FOR USE

Preliminary Statement:

Prior to use it is necessary to read the **Material Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed. Please also refer to the local safety instructions and contact Henkel for analytical support.

Pretreatment:

The substrate should be clean, dry, free of dust, oil, grease and other contaminants. An improvement of the adhesion can be achieved by grinding or sandblasting the surface.

Application:

The adhesive is only to be used within a limited time (pot life). Therefore only the amount that can be applied within the time of pot life should be mixed. Thoroughly mix resin (A) and hardener (B) in the correct proportion.

Generally the recommended service temperature range for this product is -55 to +80°C. However experience has shown that higher temperatures, of around 200°C, may be endured for short periods providing the adhesive is not unduly stressed.

Classification:

Please refer to the corresponding **Material Safety Data Sheets** for details on:

Hazardous Information
Transport Regulations
Safety Regulations

Storage:

When stored in the original unopened containers at 18 to 25°C, the shelf life of this product is 12 months from the date of production.



ADDITIONAL INFORMATION

Disclaimer

Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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Reference 0.1