

Polytec UV 2137 DC

Properties

Polytec UV 2137 DC is a 100% solid, single component, low viscosity, water vapor resistant, reflow process resistant, dual curing adhesive (UV-/Visible light & Thermal).

It is recommended for applications where good impact strength, thermal shock resistance, water vapor resistance, reflow resistance and vibration resistance is desirable.

Polytec UV 2137 DC has a good adhesion to glass, metals and most plastics and starts to cure at low intensity. It is ideal for glass bonds, for joining glass to metal and glass to plastics. The low viscosity of the product allows a good wetting and capillary action.

Polytec UV 2137 DC is an adhesive, sealant and encapsulant for sensitive parts and as protection against harsh environments.



Processing

- Polytec UV adhesives are single-component products which cure rapidly under exposure to UV or visible light. They should not be exposed to light before application.
- Polytec UV adhesives come ready to use and can be applied directly from the respective packaging.
- Been refrigerated products should be brought to room temperature prior to processing.
- The curing time depends on a number of factors such as type and intensity of the light source, working distance for UV lamp, adhesive layer thickness and UV transmittance of the substrate.
- Air oxygen may inhibit the curing of the material at the surface. Surfaces associated with air during the hardening should be cured with higher intensity or by using an inert gas (e.g. nitrogen) to obtain a dry surface. Please take notice of respective minimum curing temperature and time.
- Substrates should be free of dirt, grease, oil or any flux residues.
- For Safety information please refer to the respective Material Safety Data Sheet.

Polytec UV 2137 DC

UV light curing acrylate adhesive

Technical Data

Polytec UV 2137 DC

Properties in uncured state	Method	Unit	Technical Data
Chemical basis	-	-	Acrylate / Methacrylate
No. of components	-	-	1
Storage Stability at 10°C	TM 701	Months	6
Consistency	TM 101	-	Low viscosity
Density Mix	TM 201.2	g/cm ³	1.05
Viscosity Mix 100 s ⁻¹ at 23°C	TM 202	mPa·s	850

Properties in cured* state	Method	Unit	Technical Data
Color	TM 101	-	Transparent
Hardness (Shore A after UV-curing)	DIN EN ISO 868	-	80
Temperature resistance continuous	TM 302	°C	-40 / +120
Temperature resistance short term	TM 302	°C	-
Degradation Temperature	TM 302	°C	-
Glass Transition Temperature (T _g)	TM 501	°C	-
Coefficient of thermal expansion (<T _g)	ISO 11359-2	ppm	-
Coefficient of thermal expansion (>T _g)	ISO 11359-2	ppm	-
Elasticity modulus	TM 605	N/mm ²	-
Tensile Strength	DIN 53455	N/mm ²	-
Lap shear strength (PA6.6/brass)*UV-curing (PA6.6/brass)* thermal curing (Glass/seel)*24h/135°C steaming	DIN 53283	N/mm ²	>2 >4 >20
Elongation at break	DIN 53455	%	-
Water absorption 24 h, 23°C	TM 301	%	0.8
Refractive Index	-	-	-

*The above data has been determined with samples cured by UV-light. Please notice, by varying the curing temperature these properties can be influenced to some extent.

Polytec UV 2137 DC

Curing*	Method	Unit	Technical Data
Emission spectrum		nm	320 – 500
Maximum		nm	395
Curing time at 0.05 mm thickness		s	Ca. 6
Curing time at 100°C		min	30

*Curing temperatures refer to the UV-light intensity in the respective bond line. When choosing the respective curing conditions, the thickness and the substrates permeability towards UV-light has to be considered.

Standard pack sizes:

30cc* / 30g

1L** / 1 kg

Customized Packaging

*: EFD-Cartridges, **: Bottles, ***: Semco-Cartridges

Please note:

The above listed information are typical data based on tests and are believed to be accurate. Polytec PT makes no warranties (expressed or implied) as to their accuracy. The above listed data do not constitute specifications. The processing (in particular the cure conditions) of the material, the process control and the variety of different applications at various customers are not under Polytec PT's control. Therefore Polytec PT will not be liable for concrete results in any specific application or in any connection with the use of this product. In particular the cure conditions do have a major effect on the properties of the cured material. Therefore it is highly recommended to keep the cure schedule – once established - under tight control. With the release of this data sheet all former data sheets will be null and void.

Subject to alteration.

Polytec PT GmbH
Polymere Technologien
Ettlinger Straße 30
76307 Karlsbad
Germany
Tel. +49 (0) 7243 604-4000
Fax +49 (0) 7243 604-4200
info@polytec-pt.de
<http://www.polytec-pt.de>

Polytec France S.A.S.
TECHNOSUD II
Bâtiment A
99, Rue Pierre Semard
92320 Châtillon - France
Phone. +33 (0)1 49 65 69 00
Fax +33 (0)1 57 19 59 60
info@polytec.fr
<http://www.polytec-pt.com>

Polytec South-East Asia Pte Ltd
Blk 4010 Ang Mo Kio Ave 10
#06-06 Techplace I
Singapore 569626
Tel. +65 6451 0886
Fax +65 6451 0822
info@polytec-sea.com
<http://www.polytec-pt.com>