



Polytec EP 653-T

Polytec EP 653-T is a 100% solid, two component, highly thixotropic, high temperature epoxy

Typical Properties

Number of Components	2
Mix Ratio By Weight	
Part ,A' (resin)	100
Part ,B' (hardener)	10
Pot Life at room temperature	24 Hours
Shelf Life at room temperature	12 Months
Viscosity (84 RPM @ 23°C)	23000 mPa s
Consistency	Creamy paste
Specific Gravity Part ,A' (resin)	1,20 g/cm ³
Specific Gravity Part ,B' (hardener)	1,05 g/cm ³
Specific Gravity mixed	1,10 g/cm ³
Color (Before / Upon cure)	Yellow / Amber

Minimum Bond Line Cure Schedule

80°C	90 Minutes
120°C	30 Minutes
150°C	5 Minutes

Thermal Properties

Glass Transition Temperature	120 - 130°C
Continuous Operating Temperature	-55°C / 230°C
Intermittent Operating Temperature	-55°C / 300°C
Degradation Temperature	400°C

Mechanical Properties

Shore- Hardness	D85
Die Shear Strength	80 N/mm ²

Electrical Properties

Volume Resistivity at 23°C	>4*10 ¹² ohm-cm
----------------------------	----------------------------

Cation-Anion Analysis

Chlorine (Cl ⁻)	<189 ppm
Sodium (Na ⁺)	< 3 ppm
Ammonium (NH ₄)	< 319 ppm
Potassium (K ⁺)	< 3 ppm
Fluoride (F ⁻)	< 3 ppm

Polytec EP 653-T is the thixotropic, non-flowing version of Polytec EP 653. It provides excellent high temperature, chemical, electrical and moisture resistance. It was designed for medical, semiconductor, hybrid, piezo, fiber optics, HV and UHV applications. It has excellent adhesion to glass, metal, ceramic, ferrite and most plastics. The material will not even start to flow during cure.

Features:

- Non-Flowing
- High TG
- High Temp
- Excellent chemical and moisture resistance
- Highly insulating
- Color change upon cure
- 100% solid
- COB Glob Top DAM material
- Staking SMDs to PCB
- Bonding ferrite cores

Processing:

- Dispensing
- Screen Printing
- Stencil Printing

Available Packs Sizes:

- See Price List
- Customized Packaging
- Also available as pre-mixed-frozen version

Polytec EP 653-T-frozen

For more information, see:

- MSDS of Polytec EP 653-T
- Application notes
- Catalogue

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.

Polytec PT GmbH

Polymere Technologien • Polytec-Platz 1-7 • 76337 Waldbronn • Germany

Tel. ++49(0) 7243 604-4000 • FAX ++49 (0) 7243 604-4200 • Email: info@polytec-pt.de • <http://www.polytec-pt.de>