

## Data Sheet

# Polytec EC 101-L-ATC

Polytec EC 101-L-ATC is a 100% solid, two component, electrically conductive epoxy system, optimized for fully automated, high volume two component mix and dispensing systems

## Typical Properties

Number of Components	2
Mixing Ratio by Weight	
Part 'A' (resin)	10
Part 'B' (hardener)	1
Pot Life at room temperature	2 Days
Shelf Life at room temperature	12 Months
Viscosity (84 U/min @ 23°C)	8000 mPa s
Consistency	Soft, creamy paste
Specific Gravity Part 'A' (resin)	3,60 g/cm <sup>3</sup>
Specific Gravity Part 'B' (hardener)	1,07 g/cm <sup>3</sup>
Specific Gravity (mixture)	2,75 g/cm <sup>3</sup>
Max. Particle Size	≤30 µm
Color	Silver

Polytec EC 101 –L-ATC is a standard two component, silver filled, electrically conductive epoxy for high volume chip and substrate bonding in micro-electronic, medical, hybrids, optoelectronic, LED and photovoltaic applications on ITO, TCO, metals, glass, Si, ceramic and most plastics. It can be cured below 100°C (with a VR of 1-2 x 10<sup>-3</sup> Ω-cm). The special chemistry of this epoxy also allows rapid cure cycles at higher temperatures.

## Features

- Long pot life
- Optimized for automated two component mix and dispensing systems
- Outstanding dispensing characteristics
- High temperature stability
- Excellent electrical and thermal conductivity

## Minimum Bond Line Cure Schedule

95 °C	60 Minutes
120°C	15 Minutes
150°C	10 Minutes
180°C	40 Seconds

## Thermal Properties

Glass Transition Temperature (Tg)	>80°C
Continuous Operating Temperature	-55°C / 200°C
Intermittent Operating Temperature	-55°C / 300°C
Degradation Temperature	400°C
Coefficient of Thermal Expansion	
Below Tg / Above Tg	40 / 114 [x10 <sup>-6</sup> /K]
Thermal Conductivity	1,3 W/m <sup>2</sup> K

## Electrical Properties

Volume Resistivity	1 - 4 x 10 <sup>-4</sup> ohm-cm
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## Mechanical Properties

Shore- Hardness	D85
Die Shear Strength	≥50 N/mm <sup>2</sup>

## Processing:

- Two component mix and dispensing system



## Available Pack Sizes:

- See price list
- Customized Packaging

## For more information, see:

- MSDS of Polytec EC 101-L-ATC
- 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.

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