

## Polytec AC 2441

### Description

- one-component acrylate/methacrylate hybrid
- solvent-free
- thermal curing

### Product properties

- medium viscous
- thixotropic
- very good adhesion to various substrates
- very high strength
- impact resistant
- thermal shock resistant

### Applications

- bonding, sealing, potting
- magnet bonding

### Processing information

Any contact of the adhesive with base metals, contamination with amines or reducing agents (e.g. vitamin C) should be strictly avoided, as this may lead to undesired premature curing of the product (e.g. in the metering unit).

### Surface preparation

The surfaces to be bonded should be free of dust, oil, grease or other contaminants in order to obtain an optimum and reproducible bond. For lightly soiled parts, wiping with isopropanol or ethanol is sufficient. Substrates that have a low surface energy (e.g. polyethylene, polypropylene, Teflon) must be physically pretreated (e.g. with atmospheric plasma or corona) to achieve sufficient adhesion.

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Thermal curing acrylate/ methacrylate hybrid adhesive

## Technical Information

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Properties in the uncured state	Method	Unit	Technical data
Chemical base	-	-	acrylate/methacrylate hybrid
Color	-	-	colorless, opaque
Number of components	-	-	1
Shelf life at max. 10°C	-	month	6
Consistency	-	-	medium viscous, thixotropic
Density	-	g/cm <sup>3</sup>	app. 1.06
Viscosity rheometer, cone/plate	400 s <sup>-1</sup> at 23°C 10 s <sup>-1</sup> at 23°C	mPa·s	app. 3,800 app. 7,900

Properties in the cured state	Method	Unit	Technical data
Shore-hardness	Shore D curing: 30 min/135°C	-	app. 80
Service temperature	-	°C	-40 / +150
Max. temperature short term	-	°C	app. +280
Lap shear strength Zinc galvanized steel/zinc galvanized steel Aluminum/aluminum FR4/FR4	curing: 30 min/135°C	N/mm <sup>2</sup>	> 29 > 29 17.3
Tensile strength	curing: 30 min/135°C	N/mm <sup>2</sup>	46
Elongation at break	curing: 30 min/135°C	%	6.4
Water absorption 24 hrs. at 23°C	gravimetric, curing: 30 min/135°C	%	0.8

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Curing*	Method	Unit	Technical data
Minimum curing temperature	-	°C	95
Thermal curing at 135°C	-	min	15
Thermal curing at 200°C	-	sec	40

\*The instruction is related to the temperature in the adhesive joint. The curing process is temperature dependent and can be accelerated by exposing the adhesive to higher temperatures. Furthermore, the curing time can slightly vary due to the thickness of the adhesive joint.

### Work and health protection

See safety data sheet.

### For your attention:

The above data can only be general information. The properties and performance characteristics listed are typical values and do not form part of the product specification. Due to the processing and application conditions beyond our control and the large number of different materials, we recommend that you first carry out your own tests. Therefore, no liability for concrete application results can be derived from the information and notes in this data sheet. With the publication of this edition, all previous technical data sheets become invalid.

Polytec PT GmbH  
Polymere Technologien

Ettlinger Straße 30  
76307 Karlsbad  
Germany  
Phone +49 (0)7202 706-3500  
info-pt@bostik.com  
www.polytec-pt.com

Polytec PT GmbH  
Polymere Technologien  
Plant Maxdorf  
Bahnhofstr. 1  
67133 Maxdorf  
Germany

info-pt@bostik.com  
www.polytec-pt.com