

EP661

High temperature epoxy adhesive

Trelleborg EP661 is a two component, low viscosity, epoxy adhesive system designed for use up to temperatures of 230 °C. It may be used for many diverse bonding applications but is most suitable as a thin bond line adhesive for blocking up Trelleborg epoxy boards. The adhesive system gels at room temperature, but requires a post cure to achieve maximum properties.

Features & Benefits

- Low viscosity
- High heat stability
- High temperature resistance

Applications

- EP661 is designed as a thin bond line adhesive for bonding epoxy boards and offers excellent thermal and mechanical performance.
- It is suitable for use up to 230 °C.

Product Sizes

EP661 is available in a 1 Kg kit.



Storage

Adhesive EP661 and hardener EP661 should be stored in original containers at a temperature between 15 and 25 °C. The product may crystallize during storage. If crystallized, warm to 55 – 65 °C until dissolution, then mix well. Both components, if stored in the specified conditions, have a shelf life of 12 months from the date of production.

Health & Safety

Eye protection and gloves should be worn when working with Trelleborg EP661.

Please refer to the Trelleborg Material Safety Data Sheet.

PHYSICAL PROPERTIES

Product	Material	Aspect	Color	Mix Ratio (pbw)	Viscosity	Gel Time* (150 g)
EP661 Adhesive	Epoxy formulation	Liquid	-	100	42,000 mPas	-
EP661 Hardener	Amine	Liquid	-	40	2,600 mPas	-
Mixture	formulation Epoxy	Liquid	Dark Amber	-	9,200 mPas	130 minutes

* data measured at 25 °C

MECHANICAL PROPERTIES

Shore Hardness	85 D	ISO 868
Flexural Strength	60 MPa	ISO 178
Flexural Modulus	2,900 MPa	ISO 178
Tensile Strength	81 MPa	ISO 527-1
Compressive Strength	176 MPa	ISO 604
Coefficient of Thermal Expansion	26.7×10^{-6} m/m/°C	
HDT, Post Cure	235 °C	ASTM D648

EP661 Processing Guidelines

Preparation of Substrates

Read the Material Safety Data Sheet before use.

Substrate surfaces must be cleaned and dried to remove traces of dust, dirt, oils or release agent before applying EP661. If necessary, degrease with 1-bromopropane or other suitable solvent. Models, molds and parts to be assembled must withstand the recommended post-cure cycle temperature.

Mixing and Application

Always use clean, dry tools for mixing and applying.

Adhesive EP661 must be mixed with hardener EP661 in the exact mix ratio by weight indicated. Both components must be at room temperature (20 – 25 °C).

Mix until smooth, paying attention to the material on the edges of the container and not to incorporate too much air.

For gluing and repair of epoxy boards intended for applications at elevated temperatures, the use of vacuum is recommended to avoid the retention of any air pockets.

Polymerization and Post-Curing

High temperature epoxy systems require an elevated temperature post cure to enable them to develop their full physical and temperature properties.

A full cure is obtained after 72 hours at 20 °C but to allow the material to reach its highest thermal stability, a thermal cycle of 4 hours at 120 °C is recommended.

Contact Us

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