

Glassbond LED Capping Adhesive L546

Characteristics

- Improved heat resistance
- Thixotropic, shear-thinning properties
- One-component adhesive, no need for hardeners
- Cures at room temperature
- Invisible bond line

Recommended For

LED components

Description

Glassbond LED Capping Adhesive L546 is a moisture-activated, one-component adhesive developed specifically for LED bulb manufacture. This grade demonstrates a flexible nature whilst forming a hand-tight seal in seconds.

Physical properties

Appearance	Clear, thixotropic
Specific gravity (at 25°C)	1.05 – 1.10g/cm ³
Viscosity (at 25°C, Brookfield RV)	4,000 – 6,000cP
Flash point	>81°C
Softening point	130°C
Cure time (at 25°C)	24 hours

Bonding speed

Time (seconds)

Steel	25 to 40
Polycarbonate	10 to 25
Aluminium to glass	6

Bonding speed is defined as the time taken to develop a strength of 0.1N/mm² at 22°C and 50% relative humidity in accordance with ISO 4587.

Physical properties were determined on specimens prepared under laboratory conditions. Actual field conditions may vary and yield different results; therefore, data are subject to reasonable deviation. Data should not be used for specification purposes.

Application/Instructions

PREPARATION – Bring the adhesive to room temperature prior to use and ensure the surfaces to be bonded are clean and free from dirt or grease. Cleaning can be carried out with standard grade solvents such as IMS or acetone. This adhesive uses residual surface moisture to cure so there is no requirement to dry the surfaces prior to use. The substrate that doesn't have adhesive applied to it can be prepared by carefully exhaling on it to create a humid environment.

APPLICATION - Use as thin a bond line as possible while ensuring complete coverage of the target area. Apply Glassbond LED Capping Adhesive L546 to one substrate and hold the parts together firmly by hand. If the substrates are able to be clamped together the tensile/torque strength can be improved. The thinner the bond line, the stronger the bond. Due to its thixotropic nature this adhesive won't run and should demonstrate a good ability to stay in place when applying. Avoid contact with natural fibres such as cotton and wool.

Setting/Curing

When bonding glass to metal Glassbond LED Capping Adhesive L546 will form a hand-tight grip within seconds however other substrates may vary in bonding speed. Suitable pressure by hand should be applied when bonding. Full strength will be achieved after 24 hours at room temperature.

Cleaning

Excess adhesive should be left to set before scraping or abrading away with an emery board.

Packaging

This material is supplied in various types and sizes of containers. Please contact Glassbond's sales department for further details (sales@glassbond.co.uk).

Shelf Life

Glassbond LED Capping Adhesive L546 has a shelf life of six (6) months when stored in unopened, tightly sealed containers in a dry location at 2°C to 10°C. Maximum storage temperature is 25°C. HDPE containers do not offer a complete barrier, store away from other chemicals and sources of humidity. Strong light exposure can discolour product. If there is doubt as to the quality of the material, consult Glassbond.

Caution

Consult the Material Safety Data Sheets and container label caution statements for any hazards in handling this material.

Warranty

We warrant that our goods will conform to the description contained in the order and that we have good title to all goods sold. WE GIVE NO WARRANTY, WHETHER OF MERCHANTABILITY, FITNESS FOR PURPOSE OR OTHERWISE, EXPRESS OR IMPLIED, OTHER THAN AS EXPRESSLY SET FORTH HEREIN. Users shall determine the suitability of the product for intended application before using.