

# An Introduction to Glassbond LED Capping Adhesives

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# Background

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- Established in 1978 to manufacture lamp capping cements for the lighting industry
- Manufacturer of high temperature ceramic adhesives and moulding compounds for the lawn bowl industry
- For the last few years we have been supplying instant and UV adhesives
- 26 employees on site in St. Helens, UK
- Network of agents throughout Europe



# Background

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- ISO9001: 2015 and ISO14001:2015 registered
- Established and well trusted in the market
- Experienced global exporters
- Technical expertise in our areas of business
- Nimble and fast moving, able to adapt



# Introduction

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- A collection of UV-curables and high performance instant adhesives
- Proprietary formulations manufactured in the UK
- First generation commercialised in 2019
- Suitable for bonding glass, ceramic, metal and plastics in seconds
- Introduced originally for use in LED lamp manufacture where sensitive electronics are used
- Quickly discovered that both chemistries are applicable in a variety of other areas

# UV-Curables

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- Contains a blend of photoinitiators, polymers and resins
- Supplied in opaque packaging to prevent exposure to light
- Typical applications:
  - Signage
  - Automotive
  - PCBs
  - Dental
  - OLED displays
  - Fibre optics



# UV-Curables

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- Best suited to applications that use at least one transparent substrate such as glass or thermoplastics
- Can also be used for potting applications
- Three grades available:
  - L904, general purpose metal bonder
  - L930, thixotropic metal bonder
  - L931, thixotropic plastic bonder
- Easy to handle with an indefinite working time, cures on demand

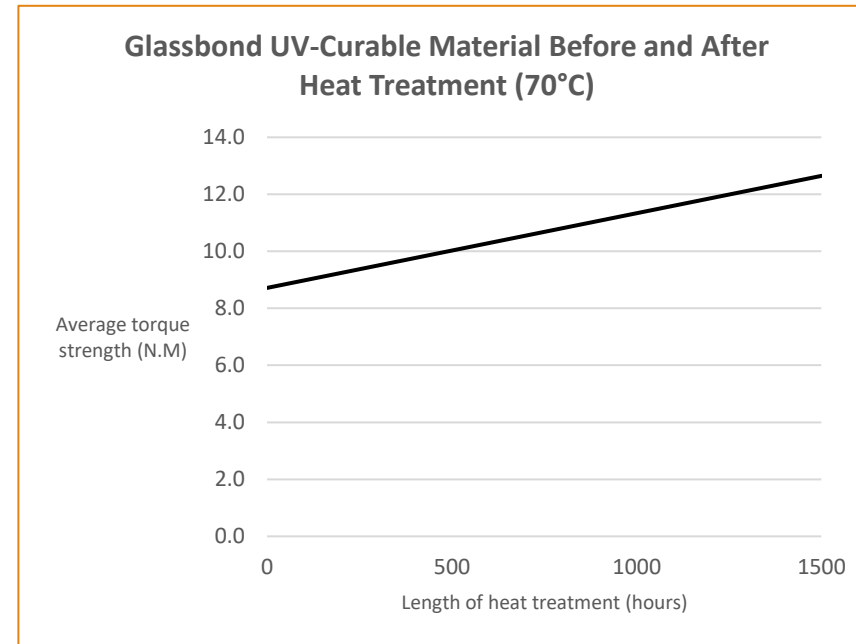


Bonding glass to aluminium with L904

# UV-Curables

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- Thermal post-cure effect on tensile and torque strength – increases seen in warm environments
- Use a photochemical reaction to cure in seconds
- Suited to UV-A wavelengths at 395nm
- Invisible bond line, complete optical clarity



# High Performance Instant Adhesives

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- Based on organic polymers that use residual surface moisture to cure in seconds
- Suitable for a whole range of substrates
- Two grades available:
  - L822, general purpose with optimised cure speed
  - L829, general purpose with enhanced heat resistance
- Thin-film technology, very small quantities required to achieve high tensile strengths
- Highly malleable, formulations can be easily tailored to a customer's requirements



Bonding glass to polycarbonate with L822



# High Performance Instant Adhesives

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- Acidic stabilisers used in the gas and liquid phase to prolong shelf life
- Typical properties that can be altered include:
  - Viscosity
  - Colour
  - Cure speed
  - Thixotropy
  - Heat-resistance
  - Odour level
- 100% solids, no VOCs present
- Classed as non-hazardous, all grades can be transported globally without restrictions

# Packaging

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- Various packaging sizes available to meet every requirement

High Performance Instant Adhesives	UV-Curables
20g bottles	50g bottles
50g bottles	100g bottles
5Kg jerry cans	5Kg jerry cans
20Kg jerry cans	20Kg jerry cans

- Fully compatible with automated production lines for high speed manufacture
- Jerry cans are supplied with aeroflow taps to allow for easy dispensing

# Contact Details

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