Version: 01

Date Revised: 01.06.2023

Technical Data Sheet

LR820 – High Strength High Temperature Slower Fixture Time Retainer

Characteristics

- Thixotropic Gel
- High strength
- Excellent temperature resistance
- One-component
- Bond strength can exceed that of substrate
- Slow fixture time to allow for adjustments

Recommended For

Ideal for bonding cylindrical fitted parts where high temperature resistance is needed

Description

Glassbond Anaerobic Adhesive LR820 is a green, high strength, thixotropic gel retainer. Perfect for high temperature applications (approx. 200°C). Typically used to fix locating pins in radiator assemblies, sleeves into pump housings and bearings in auto transmissions. Cures in the absence of air, between close fitting parts where metal ions are present. Prevents leaking and loosening caused by vibration, leaks and corrosion.

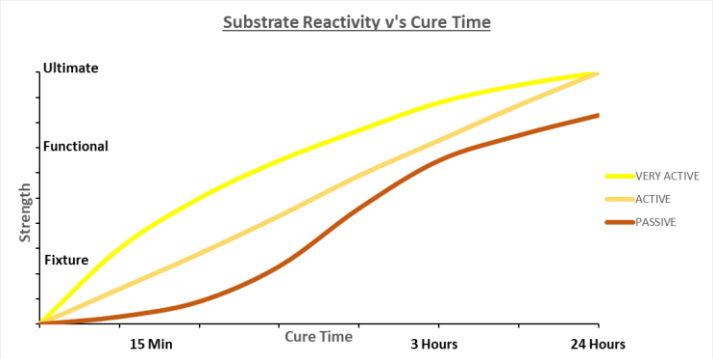
Physical properties	
Appearance	Green Gel
Viscosity	5,000 – 12,000 cP
Service Temperature	-54 to 230°C

Bonding Speed	**Time**
Fixture Time	<30 min
Full Cure	24hr

Other properties	
Gap Fill	0.25mm
Shear strength	>17N/mm^2

Application/Instructions

PREPARATION – For optimum performance ensure the surfaces to be bonded are clean and free from dirt or grease. Where washing systems are used to clean the surfaces before bonding, it is important to check the compatibility of the washing solution with the adhesive. If the material to be bonded is an inactive metal, consider using activator prior to use.



Substrate selection is key to performance (graph is for guidance only).

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.

Glassbond (NW) Ltd, West Side Industrial Estate
Jackson Street, St Helens, Merseyside, WA9 3AT, England
Registered in England No 1378679

Tel: +44(0) 1744 730 334 Fax: +44(0) 1744 453242
Website: www.glassbond.co.uk
Directors: ME Cordell Managing Director, PJ Randell, DJ Randell (M.I.M)

APPLICATION – Shake the product thoroughly prior to use. Apply several drops to the surfaces to be bonded. Assemble and tighten as necessary (see below). Due to its thixotropic nature this adhesive won't run and should demonstrate a good ability to stay in place when applying. To prevent clogging of the nozzle, do not let the tip touch the metal surface during application.

SLIP FITTED PARTS – Apply adhesive around the leading edge of the pin and inside the collar. Rotate throughout assembly to ensure good coverage.

PRESS FITTED PARTS – Apply adhesive to both mating surfaces and assemble at high pressure.

SHRINK FITTED PARTS – Apply the adhesive on to the part in an even, smooth layer. Coat the pin when heating for assembly. The collar should be coated if the pin needs to be cooled for assembly. The material should be applied to the cooled part if both heating and cooling are required. Cooled parts should be kept free of condensation.

Setting/Curing

There may be a difference in fixture speed and strength dependent upon the substrate. For example, full strength will be achieved more rapidly with materials such as mild steel and brass when compared to passive materials such as stainless steel or zinc dichromate. Fixture times will also be longer at lower temperatures. It is possible to accelerate the fixture time by heating the assembled parts or by using an activator. **NB** the use of an activator may reduce bond strength (possibly by 30%). Overall maximum strength may take up to 24 hours to achieve. See table below for comparative substrate reactivity.

CLASSIFICATION	SUBSTRATE
VERY ACTIVE	Brass, Copper
ACTIVE	Mild Steel, Bronze, Iron
PASSIVE	High Alloy Steel, Aluminium, Stainless Steel, Oxide Films, Nickel, Silver, Zinc, Gold, Chromate Films, Plastics, Ceramics, Anodic Coatings

Fixture speed is also affected by bond gap size. A larger gap between threads/parts can result in longer fixture time.

Cleaning

To remove cured product, use a combination of solvent and abrasion, such as a wire brush.

Packaging

This material is supplied in 50ml and 250ml HDPE packaging. Please contact Glassbond's sales department for further details (sales@glassbond.co.uk).

Shelf Life

Glassbond LR820 has a shelf life of 12 months when stored in unopened, tightly sealed containers in cool conditions, away from direct sunlight. Ideal storage temperature is between 8°C and 21°C. 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. Not to be used in oxygen rich systems or in the presence of other strong oxidising materials.

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.