

# TECHNICAL BULLETIN



## Glass Bonding – Procedures & Materials

**76-126**

MODEL 1988-94 MY Sedan Range      DATE 10/98  
XJS Coupe 1992-96MY & all Conv.

### ISSUE:

A new glass bonding kit, JLM 20452, containing a high modulus, two part, adhesive, supplied by GURIT ESSEX UK Ltd., has been approved for use as the only glass bonding material to be used in the reglazing of Jaguar vehicles.

Since the structural integrity of the vehicle depends in part on the bond between the fixed glass and the body, the use of incorrect materials or techniques can affect the structural performance of the vehicle.

JLM 20452 conforms to the Jaguar specification and provides the torsional rigidity required.

**This is the ONLY product approved by Jaguar Cars for the bonding of glass and will replace the JLM 1588 glazing kit.**

**▲ WARNING: IF THIS MATERIAL CONTACTS THE SKIN, WASH THAT AREA. IF THIS MATERIAL CONTACTS THE EYES, IMMEDIATELY FLUSH WITH WATER AND CONTINUE TO FLUSH FOR AT LEAST 15 MINUTES. IF THIS MATERIAL IS INGESTED, DO NOT INDUCE VOMITING, CONSULT A DOCTOR IMMEDIATELY. EXTENSIVE OR REPEATED SKIN CONTACT MAY LEAD TO IRRITATION AND SENSITIZATION. IN THE EVENT OF INFLAMMATION OR A 'STINGING' SENSATION WHICH PERSISTS, CONSULT A DOCTOR, EXPLAIN THAT THE PRODUCT CONTAINS 'SILANES' AND SHOW THE SEALED CONTAINER TO THE DOCTOR.**

It is recommended that gloves and safety glasses are worn when handling these materials.

## MATERIALS AND TOOLS

The JLM 20452 Glazing Kit consists of the following items:

1 x cartridge	X2500A		( 225ml )
1 x cartridge	X2500B		( 225ml )
1 x bottle, green cap	5100	universal glass primer	( 15ml )
1 x bottle, yellow cap	VP 04604	activator for glass	( 15ml )
1 x bottle, blue cap	4000	activator for pre-applied	( 15ml )
1 x mixer head		sealant	
1 x pre-cut cartridge nozzle			
1 x wire cutter			
1 x primer applicator			

The following tools and equipment are required in addition to the pack above:

BETAGUN - 501-050*	Suction cups
Gloves	Clean lint free cleaning paper
Protective goggles	Spacing blocks
Knife	Cutting wire
Windshield removal tool	

\* Available through SPX Kent Moore, refer to page 6 of this bulletin.

## ADHESIVE SEALANT

- The adhesive sealant is supplied as a twin tube pack, as shown in Illustration 1.
- The two components, adhesive and accelerator are supplied in separate tubes but are mixed in equal quantities in the mixer tube of the Betagun.
- Uncured adhesive residues can be easily removed with 3350 or 3500 cleaners. Cured adhesive can only be removed mechanically.

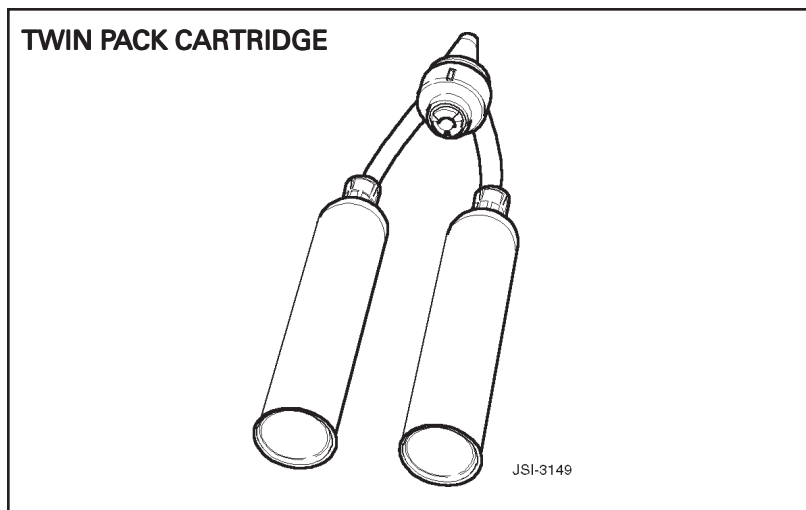
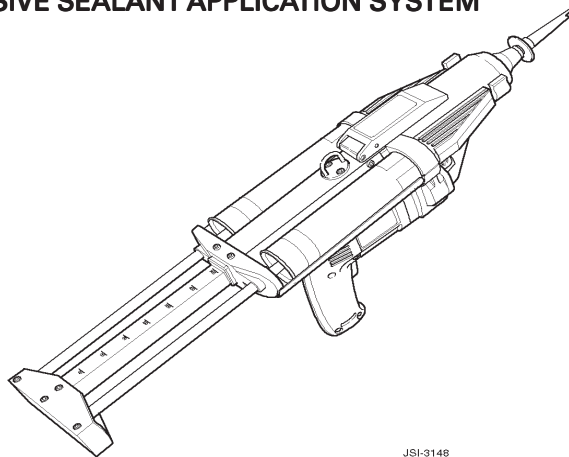


ILLUSTRATION 1

## BETAGUN III ADHESIVE SEALANT APPLICATION SYSTEM



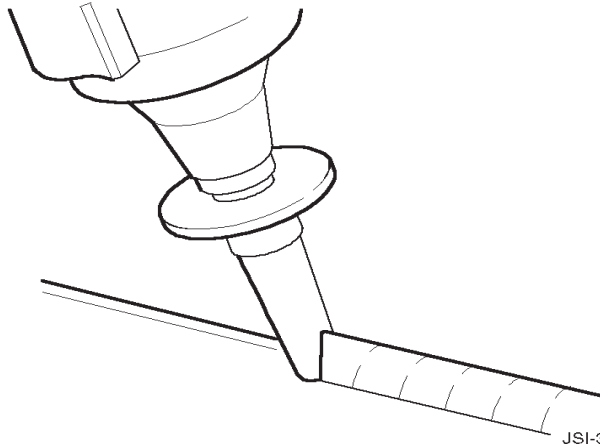
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ILLUSTRATION 2

## BETAGUN - ADHESIVE SEALANT APPLICATION SYSTEM

- The Betagun, adhesive sealant application system (Illustration 2), is an electric motor driven applicator that applies an equal force to both cartridges of the pack, to ensure a controlled mix of the two ingredients of the adhesive sealant.
- The flow rate of the mixed adhesive and accelerator is controlled by trigger pressure.

## NOZZLE AND BEAD



JSI-3152

ILLUSTRATION 3

- The extruded sealer bead should be triangular in section, (see Illustration 3).
- The application of the adhesive to the glass must be in a single continuous bead, so always position the glass on a suitable support, so that the operator can move around it to extrude the bead without interruption.
- The adhesive bead should be started at the center of the lower edge of the glass so that any possible water leak at the joint is confined to that area.
- The adhesive will begin to 'cure', as it contacts the atmosphere so the glass should be installed in the opening **immediately** after the bead is applied.

- Remove any dirt or finger marks from the glass with a proprietary cleaner. If the cleaner is alcohol-based, time must be allowed for it to dry, since alcohol inhibits the curing of the polyurethane sealer.

#### VP 04604 ACTIVATOR FOR GLASS (YELLOW CAP)

VP 04604, (yellow cap), is applied to the bond-line area of new glass to provide an etched surface key.

**CAUTION: When using VP 04604 (yellow cap) use care that this material does not contact the optically or cosmetically important areas of the glass as it will cause instant etching damage which cannot be recovered by any cleaning process. The damage will take 2 to 4 weeks to develop, and it will be seen as a 'misting' or 'milky' surface which will render the glass unserviceable.**

- Apply an even film of the VP 04604, glass etch wipe, to the black ceramic band on the glass, using the cloth supplied in the kit and then immediately wipe it off using a clean cloth.
- Allow 1 to 2 minutes for the glass etch wipe to react fully.

#### 5100 UNIVERSAL GLASS PRIMER (GREEN CAP)

- 5100, (green cap), is an ANTI ULTRAVIOLET primer which is applied over the area where VP 04604, (yellow cap), has previously been applied.
- 5100 is also applied to the bond-line area of a repainted body aperture where **all traces of the previous adhesive have been removed.**
- Before applying the primer, tap the base of the container on a solid surface to ensure that the mixing balls are loose and then shake for a minute to ensure that the primer is thoroughly mixed.
- Apply the Primer with a felt applicator to spread an even film over the bond-line area and then allow 15 -20 minutes drying time
- **Do not** apply the Primer to any previously cured adhesive, which has been cut back after the removal of old glass, in preparation for reglazing.

**Note:** Where paint damage has occurred during the removal of the previous glass, the appropriate Jaguar Paint Refinishing processes must be followed to restore the paint in the window opening before reglazing is performed.

#### 4000 ACTIVATOR FOR PRE-APPLIED SEALANT (BLUE CAP)

- If glass has been removed, use the wire felt applicator supplied in the kit to apply 4000 activator (blue cap) to the existing urethane bead, which must be fully bonded to the glass or painted body. The existing urethane bead must also be trimmed back to a maximum thickness of 1 to 2 mm on the glass and the opening.

- Since the activator dries rapidly, the glass, with the adhesive applied, should be positioned and installed within 15 minutes of applying the activator.

### NON-URETHANE PRODUCTS

- If a non-urethane glass bonding or sealing material is present, e.g. a silicone-based sealer, it is essential that **all traces** of that material are removed before reglazing, down to bare metal if necessary.
- Follow Jaguar Paint Refinishing processes to restore the cosmetic finish to the opening before installing the glass.

### CURINGTIMES

- Urethane products 'cure' by the chemical reaction resulting from the combination of the components. The curing rate increases with a rise in temperature.
- Glass bonding should always be carried out at temperatures between 18° to 25°C (65° to 77°F).
- The vehicle should remain **stationary** during this period and should **not** be stored outside, in lower temperatures or where it may get rained on, until after the curing period.
- Air Bag/SRS systems on Jaguar vehicles rely on the integrity of the windshield being retained to the body shell, so that driving before the urethane is properly cured, could have serious consequences in the event of an accident that is severe enough to cause Air Bag/SRS deployment.

### DRIVE AWAYTIME

**Single or twin Air Bags - 120 minutes at an ambient temperature above 5°C (41°F).**  
**No Air Bag - 30 minutes at an ambient temperature above 5°C (41°F).**

### DISPOSAL OF MATERIALS

Excess materials from the glass bonding kit, along with material applicators and shop rags should be disposed of in the same manner as other paint shop waste.

**Parts Information:**

The Glass Bonding Adhesive Kit consists of a 2 X 225 ml. cartridge pack, mixer head, glass primer, wipe and promoter and a primer applicator.

Dealers and body shops should hold an absolute minimum stock of the kit, which has a limited shelf life even under good (cool) conditions. The shelf life is 9 months in unopened containers and the container has a 'Use by' date.

Stock ordered on an 'as required' basis will ensure that material is supplied and used which is as fresh as possible: **never use a kit which is date expired.**

**DESCRIPTION**

Glass bonding adhesive kit

**PART NUMBER**

JLM 20452

**Tool Information:**

Order tool 501-050 directly from SPX Kent-Moore, not Jaguar Cars.

**Phone:**

1-800-345-2233 U.S.

1-810-574-2332 U.S.

**Fax:**

1-800-578-7375 U.S.

**Warranty Information:**

For S.R.O.s regarding the Renewal of the Windshield, refer to the Warranty Codes and Repair Operation Times manual.