

Arbour Shield®

# Forestry and Mining Windscreen Installation Manual.

#### Installation Procedure

<u>Cleaning agents:</u>	Simson Cleaner E or Methylated Spirits for cleaning structure and glass Soapy Water for finish caulking.
Priming agents:	Simson Primer G. (U.V. Blackout Primer) Simson Prep M for bare metal.
<u>Glass setting products:</u>	Natural rubber or TPE setting blocks with a shore hardness A 50 3mm, 8mm, 10mm thick.

<u>Caulking products</u>: <u>Bostik Simson ISR70-08</u> for bonding the glass to the structure and for finish caulking</u>.

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#### FORESTRY PROTECTION GLASS - BY GLASSHAPE





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- 1. All filling and fairing of the window structure and bonding surfaces needs to be completed and painted to a proof coat or finish coat stage. Painted construction must be, dry, dust and grease free during the installation procedure. The bonding surface should be a minimum of 50mm.
- 2. The bonding rebate should be cleaned using Simson Cleaner E or Methylated Spirits to remove all contaminants. Dust, overspray, grease and wax and tape residue are the usual types of contaminants.
- 3. The glass bonding surface and edge must be cleaned using Simson Cleaner E or Methylated Spirits to remove all contaminants. If the glass does not have a blackout frit applied during manufacture, the bonding surface of the glass must be painted with Simson Primer G (blackout primer) to prevent U.V. light damage of the bonding adhesive by sunlight through the glass. This Simson Primer G blackout primer can be painted to the back of the glass to line up to the interior cabinets to aesthetically improve the look from the outside of the window. The bonding surface of the glass must be painted with Simson Primer G no less than 15 minutes and no more than 1 day before being bonded.

*NOTE: In the case of glass already being blacked out with a surface paint or frit, do not use solvent cleaners on the blacked out areas. The glass should be wiped clean with a lint free cloth in these areas.* 

- 4. Bostik Simson ISR 70-08 does not require activation primers or sealers when the bonding is to a clean painted surface and clean glass surface. Bare metal surfaces should be primed with Simson Prep M or the Simson blackout Primer G.
- 5. Setting blocks should be placed onto the sill and flange. Generally 8mm 10mm setting blocks under the edges of the glass but no less than 8mm. This is to allow room for the glass to expand and contract with changing temperature and movement of the Cabin structure. The minimum setting block size behind the glass is 6mm but 8mm is recommended. This allows the adhesive to flex under load and provides some shock absorption.

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#### Installation Procedure Cont.

- 6. Each area or section of glass should be set up together to get the alignment between panels correct before any adhesive is applied. For example, the front screens together and the side screens together. Particular attention should be paid to having correct space around the glass and the face alignment. Once the glass is set the final blackout line to the bonding surface a can be marked and painted.
- 7. The bonding adhesive should first be applied to the frame structure leaving a 6mm high x 12mm wide double bead of Bostik Simson ISR70-08 Urethane around the entire perimeter of the frame. The ArbourShield screen must then be pressed firmly into the urethane and centered in the rebate so that there are no air spaces or voids and so that the adhesive has full contact with the bonding flange and the glass. All the setting blocks should be fully encapsulated within the bonding adhesive. A minimum of 24 hours should be allowed for the bonding adhesive to cure. If the glass is particularly heavy or the adhesive bond is thicker than 20mm or the curing temperature is less than 10 degrees Celsius, 7 to 10 days will be required for the adhesive to cure sufficiently.
- 8. Bostik MSR CA is recommended for using to finish the caulking. Water and dish washing detergent mixed in a spray bottle can be used to smooth the caulking to achieve a high standard of finish on all the caulking seams. Care must be taken that the water / detergent mix does not contaminate any areas where the bonding caulking has not yet being applied. For example: the next piece of glass or a lower piece of glass where the soapy water may drip. If contamination occurs all the surfaces should be dried and wiped with cleaner E or Methylated Spirits.

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## **Glass Handling and Lifting**

- 1. When moving and handling the glass, the movement should be in control at all times to prevent injury and damage to the glass. Most windows will require at least two people to lift and move around. 40kg should be the maximum weight that one person should lift. Some windows can be very heavy and an awkward shape to move by hand and should only be moved using an overhead gantry system and webbing lifting strops. A pneumatic glass lifting frame of the required capacity can also be used but may not be so readily available onsite.
- 2. When placing the glass down it should be placed on foam pads with foam pads between each layer of glass. Only one piece of glass should be lifted at a time. Every occasion that the glass is put down it must be placed on a foam pad.

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### Aftercare and Cleaning

- All glass is vulnerable to scratching and cracking if miss handled. Anything that is harder than glass will be able to scratch glass. All steel tools, blades, sand paper, other pieces of glass and epoxy dust will scratch. The edges and corners of glass are vulnerable to chipping and cracking if they come into contact with anything hard. The protective plastic layer that ArbourShield Glass is delivered with should be left on until all work in the area is complete. This layer protects the glass from dust and can be left on for as long as required.
- 2. To clean an ArbourShield Window, dust should be lightly brushed off with a dry cloth before any liquid cleaners are used. Warm soapy water and a cloth are the recommended cleaning agents. The glass must be dust free before any firm rubbing is done. Methylated Spirits may be used sparingly to remove tape adhesive and cured adhesive etc. Stainless steel bladed craft knives can be used for cutting tape, setting blocks and protective plastic when working around the glass. Stainless steel blades will not scratch the glass as easily as high carbon steel blades. <u>High carbon steel blades and Tungsten bladed scrapers should not be used under any circumstances.</u>

### **Question and Information requests**

For any information or questions regarding installing ArbourShield Glass contact the team at Glasshape Ltd.

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