



ENGINEERING STANDARDS

Material Specification

LIMITED USE
HN2418

Windscreen Installation Specification

Do Not Use on New Programs; No Replacement

1. GENERAL

This specification covers the technical procedure recommended for windscreen fitment.

2. PROCEDURE

This procedure involves 3 steps:

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| 1. Application of Betaseal 43518 Glass Preparation fluid to windscreen |
| 2. Application of Betaseal 43520A Glass Primer to windscreen |
| 3. Application of Betaseal 15685 Polyurethane adhesive to windscreen |

Step 1. Application of Betaseal 43518 Glass Preparation fluid to windscreen

Betaseal 43518 cleans the glass and contains an adhesion promoter to enable the Glass Primer to bond more effectively to the glass frit.

Steps:

- Clean glass with a lint free cloth only.
- Place a soft, clean, lint-free cloth over open top of tin of Betaseal 43518 and moisten cloth.
- Wipe moistened part of cloth over area of glass to be primed.
- Allow 5 seconds minimum dwell time before wiping off excess with a clean, soft, lint-free cloth.
- Allow the residual to dry for approximately 30 seconds prior to applying Glass Primer.

Step 2. Application of Betaseal 43520A Glass Primer to windscreen

Betaseal 43520A provides a good surface for adhesion of the Urethane Adhesive to the glass.

Additionally Betaseal 43520A provides a UV barrier between the glass and the Urethane Adhesive.

This is a moisture sensitive product which cures upon exposure to the atmosphere. To eliminate exposure to the atmosphere during use, it is recommended that a flow brush be used to apply the Primer. This product will also react with materials

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containing active hydrogen such as alcohols (eg. Methylated spirits) and glycols. These will have a detrimental effect on the product's performance.

Steps:

- a) Ensure tin has been agitated for at least 10 minutes prior to use. This ensures even dispersal of the black pigment for maximum UV protection.
- b) Using an applicator flow brush, apply Betaseal 43520A to area where the Polyurethane Adhesive will be applied, using a continuous motion, squeezing the bottle at the same time, just enough to ensure coverage of the surface.
- c) Allow a minimum of 30 seconds and a maximum of 110 hours before applying the Polyurethane Adhesive. If time exceeds the 110 hours or the surface becomes contaminated with dust, finger marks, moisture, etc., re-priming is necessary.
- d) To reuse flow brush, wash and soak thoroughly in MEK.

Step 3. Application of Betaseal 15685 polyurethane adhesive to windscreen

The purpose of this product is to structurally bond glass and to provide a tough, flexible, waterproof seal between the glass and vehicle body. It is a "Primerless-to-Paint" product and does not require a body primer.

Like the primers, this is a moisture sensitive product and begins curing within 5 minutes. Avoid any unnecessary exposure to the air.

This product will also react with materials containing active hydrogen such as alcohols (eg. methylated spirits) and glycols. These will have a detrimental effect on the product's curing ability.

NOTE – Betaseal 15685 is a high viscosity material. To facilitate easier gunning, cartridges can be heated by placing in either warm water or a moderate oven. Heating to approximately 35C for approximately 30 minutes will give the desired result.

Steps:

- a) Cut nozzle of Betaseal 15685 cartridge to required configuration that results in a triangular shaped bead
- b) Hold the nozzle of the gun such that the adhesive bead is extruded perpendicular to the surface
- c) Optimum bead dimension is 7-8 mm wide at the base and around 14 or 15 mm high with an inverted 'V' profile, and perpendicular to the glass. Testing should be done first to establish best angle of nozzle to glass surface that will result in the desired shape.
- d) Extrude bead whilst steadily drawing nozzle along prepared glass surface, away from applied adhesive. Do not move the nozzle too fast, as this tends to 'stretch' the bead and may result with an incorrect sized profile.
- e) Any stopping and starting of the nozzle that is necessary is best done at the corners of the glass.