

## PRODUCT DATA

Date: March 2011

Information Sheet No.: 03288/24

# TENSOL 70

## EVO-PLAS RANGE - TWO COMPONENT CEMENT

**EVO-PLAS TENSOL 70** is a two component acrylic cement that hardens at room temperature by polymerisation. It produces high strength bonds to acrylic sheet and offers excellent weathering resistance.

### RECOMMENDED USE

**EVO-PLAS TENSOL 70** is intended for cementing acrylic sheet to itself, but it will bond acrylic sheet to other materials such as wood. Applications include sign making, model making, structural engineering and acrylic sheet repair. Unsupported gaps of up to 1mm can be produced.

**EVO-PLAS TENSOL 70** is not recommended for structural applications on aircraft.

### BONDING INSTRUCTIONS

#### SURFACE PREPARATION

- Substrates to be bonded should be perfectly clean, dry and free from dust and grease.

#### APPLICATION / BONDING

- EVO-PLAS TENSOL 70 Component A** must be at room temperature i.e. 16 - 20°C. If it has been stored below 15°C it must be allowed to come to room temperature before use. This could take several hours.
- MIXING RATIO By Weight**

<b>EVO-PLAS TENSOL 70 Component A</b>	20 parts
<b>EVO-PLAS TENSOL 70 Component B</b>	1 part

The cement will not harden properly if different proportions are used.

- Add **Component B** to **Component A** and mix thoroughly, after mixing cover the vessel and leave until the larger bubbles have risen to the surface.
- The bubbles should be allowed to rise and the job completed within 20 minutes of adding **Component B**, hardening begins as soon as **Component B** is added, if not used within 20 minutes the bond will be weakened.
- Cementing operations should not be undertaken at temperatures below 15°C otherwise the setting time may be affected. Ideally the room temperature should be 15 - 25 °C.
- Setting begins as soon as **Component B** is added, the cement should harden within 1.5 - 2 hours at 20+/- 5°C, after this time the joint can be handled carefully. Light machining is possible after approx. 4 hours, but a better finish and stronger joint will be obtained if left for 24 hours.
- Once set the cement continues to harden for some time - after several days the bond strength should be adequate for most applications. However the strength of joints can be increased further by heat treatment
  - Non thermoformed components - heat for 3 - 4 hours at 80°C.
  - Thermoformed, highly stretched components - heat for 4 - 5 hours at 70°C.
  - Do not heat components until at least 1 hour after cement has set.
- Gap filling - Because of its low viscosity the gap filling properties of **TENSOL 70** are limited. Special masking techniques will be needed to keep the cement in place if large gaps are to be

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Bostik Limited, Ulverscroft Road, Leicester, LE4 6BW England. Tel: +44 (0)1785 272727 Fax: +44 (0)116 253 1943

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filled. In addition the cement shrinks in volume by Approx. 20% as it hardens so cavities must be over filled to allow for this

- Colour - After prolonged outdoor exposure (years) in warm climates a slight yellowing of the bond line may appear. This will not effect the mechanical properties of the cement.
  - If **Component B** becomes deeply coloured (yellow/orange) the hardening time should be tested by mixing a small amount of the two components. Obtain a new bottle of **Component B** if the cement is slow to set.

## TYPICAL CHARACTERISTICS

	<b>Component A</b>	<b>Component B</b>
Physical Form:	Mobile syrup	Liquid
Colour	Slight blue tinge	Pale straw
Chemical Type:	Acrylic	Peroxide
Solvent	Methyl Methacrylate	Plasticiser
Viscosity (Brookfield RVT, 10rpm at 25°C)	Approx. 1500 mPas	
Solids Content:	100%	Approx. 5%
Specific Gravity:	Approx. 1.03	Approx. 1.2
Flammability:	Highly Flammable	Oxidising agent
Cleaner / Thinner		EVO-STIK CLEANER 5

## PACKAGING

Please refer to the Customer Service Department for current pack sizes.

## STORAGE

**Component A** - store in the dark in a dry flameproof area below 20°C.

**Component B** - store in the dark at 0 - 5°C. At lower temperatures component B may crystallise out of solution. It is important that all solid deposits are re-dissolved before use. This should be done by **carefully** by warming to Approx. 20°C and shaking.

## SHELF LIFE

12 months from date of manufacture stored under the above conditions.

## MATERIAL SAFETY DATA

For further information refer to the relevant Health and Safety Data Sheet.

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Bostik Limited, Ulverscroft Road, Leicester, LE4 6BW England. Tel: +44 (0)1785 272625 Fax: +44 (0)116 253 1943

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