

## PRODUCT DATA

Date: March 2011

Information Sheet No.: 03289/25

# TENSOL 12

## TWO COMPONENT SOLVENT BORNE ADHESIVE

**EVO-PLAS TENSOL 12** is a single component solvent based acrylic cement that hardens at room temperature by absorption or evaporation of the solvent, depositing polymer in the joint. In addition the solvent softens the surfaces being joined so that they fuse together, hardening as the solvent migrates into the body material. The product is quickly and easily used direct from the bottle, which is included in the T12 application kit.

### RECOMMENDED USE

**EVO-PLAS TENSOL 12** has been specially developed to reduce the problems of rapid drying and 'skinning' common with solvent based cements. It is a versatile product for general fabrication work that does not need high bond strength.

**EVO-PLAS TENSOL 12** is ideal for the manufacture of internal signs from cast acrylic sheet and is suitable for joining items made from 'Diakon' acrylic polymers as well as 'Perspex'.

**EVO-PLAS TENSOL 12** should not be used for outdoor applications and cannot be used with Perspex ME, SW or AG grades.

**EVO-PLAS TENSOL 12** is not recommended for laminating 'Perspex' sheets, as the absorption of the solvent is likely to cause distortions and/or stress crazing.

**EVO-PLAS TENSOL 12** 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

- Although **EVO-PLAS TENSOL 12** was developed so that rapid evaporation and skinning are minimal, the following techniques will reduce problems further.
- LIMIT EXPOSURE TO AIR BEFORE APPLYING CEMENT.
  - Dispense the cement directly into the joint using a small flexible polythene bottle with a suitable nozzle or a hypodermic syringe with a wide-bore needle. Use a dispenser that holds no more cement than is required for the job. Prevent the nozzle or needle from becoming clogged by inserting a steel wire or pin whenever the dispenser is not in use.
- REDUCE THE EVAPORATION THAT OCCURS BETWEEN APPLYING THE CEMENT & ASSEMBLING THE PARTS.
  - Refrigerate the cement for at least 12 hours before use. A domestic refrigerator is suitable (5 - 10°C). If this is not possible, an alternative is to cool the cement containers in cold water, although this is less effective. The quantity of cement needed for the following day or shift should be placed in the refrigerator approx. 12 hours before use. Ready filled dispensers should also be kept cool by returning them to the refrigerator after use.
- Joints will be hardened after about 3 hours at room temperature but should not be machined for at least 24 hours. Bonds reach their maximum strength after approx. 3 weeks at room temperature, but for most applications 1- 2 weeks should be adequate.

- To obtain maximum strength more rapidly, leave the joint to harden at room temperature for at least 24 hours then heat for 8 hours at 80°C.
- The gap filling properties are limited which means that mating surfaces must be machined to close tolerances.
- The solvent in **EVO-PLAS TENSOL 12** may cause soluble colorants to migrate from one piece of Perspex to the next. If colour is important, check for any migration by making a small test joint.

## TYPICAL CHARACTERISTICS

Physical Form:	Liquid
Colour	Clear
Chemical Type:	Acrylic / Methyl Methacrylate
Solvent	Dichloromethane
Viscosity (Brookfield RVT, 10rpm at 25°C)	Approx. 550 mPas
Solids Content:	50%
Specific Gravity:	Approx. 1.13
Flammability:	Non Flammable
Cleaner / Thinner:	<b>EVO-STIK CLEANER 5</b>

## PACKAGING

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

## STORAGE

Store in a dry area in the temperature range 5 - 30°C.

## SHELF LIFE

At least 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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