

J-Foam 100 A+B

Firm Flexible PU Foam

1. DESCRIPTION

J-Foam 100 A+B is a two part polyurethane foam system, when mixed together at the correct ratio, expands to form a medium-density firm flexible foam.

2. ADVANTAGES

- Self skinning in a closed mould.
- Firm and flexible.
- High Durability.
- CFC Free.
- Easily cut with a sharp knife.
- Water based system.

3. APPLICATIONS

Suitable for the production of film or theatre props where a firm flexible urethane moulding is required such as reproduction of weapons etc.

4. CHARACTERISTICS

a) CONSTITUENTS:

	J-Foam 100 Part A (Polyol)	J-Foam 100 Part B (Isocyanate)
Appearance	Liquid	Liquid
Colour	Grey	Amber
Specific gravity /gcm ⁻³ @ 20°C	1.4	1.20
Viscosity /mPa @ 20°C	3500	200

b) MIXING:

Part A (Polyol)	Part B (Isocyanate)	Cream Tim / Secs	Rise Time / Secs	Free Rise Density g/l (or Kg/m ³)
100	20	60	240	650

Mix Ratio

J-Foam 100 can be sued at about 5:1 by weight. This will produce a firm foam. The isocyanate content may be increased in order to obtain firmer foam and vice versa. The user must first thoroughly test their chosen ratio before going into production.

Excessive usage of isocyanate can cause hardening of soft foams over time and may even cause excessive contraction of the moulding.

Information contained in this document is the result of careful tests carried out objectively. It has been produced to aid the Buyer, but without implying any commitment on our part. The Buyer shall remain responsible for satisfying himself that the products as supplied by us are suitable for his intended purpose. Since we cannot control the application, process, or use of these products, we cannot accept responsibility therefore.

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Preparation

For good release, J-Foam 100 should be cast into either silicone rubber jacketed rigid mouldings, or a GRP rigid mould using J-Wax as a release agent (two coats). Using a hot air gun, warm the surface of the mould (without evaporating the release wax) and fasten the casing together.

How much foam?

The free rise density shows how far the foam will expand, albeit an estimation. First estimate the volume of your moulding by measuring length, base and height in cm. Multiply these together and divide by 1000 to obtain the volume in litres. Multiply this figure by the free rise density and this represents the minimum foam required. Increase this by 10–20% and do your first trial.

Method

Weigh out the required Part-A, then tare the balance and weight directly into the polyol the required amount of Part-B. Rapidly mix both parts (60 second cream time) and immediately pour into your waiting mould. Close the mould allowing only small air vents to prevent air pockets forming.

Demould after at least 45 minutes, once the foam is tack free and fully cured.

c) TYPICAL MOULDED PROPERTIES

Core Density/kg/m³ [BS4370]	650
Skin Hardness [Durometer]	25 Shore A
Compressive strength / % [BS4443]	18
Tensile Strength / % [BS4443]	5.5

5. PACKING

Available in 6kg and 30kg kits.

6. HEALTH & SAFETY

(Refer to Health & Safety Data Sheet)

Handling and mixing J-Foam 100 A+B require the following precautions:

- i. Use adequate ventilation and do not breathe vapour or spray.
- ii. Wear gloves and goggles.
- iii. Do not eat, drink or smoke.
- iv. Avoid swallowing skin or eye contact.
- v. If contact does occur, wash with clean water immediately and in the case of eye contact, consult a doctor.

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7. SHELF LIFE

J-Foam 100 A + B has a minimum shelf life of six months when stored in the original containers at temperatures between 18°C and 25°C.

Note: IF allowed to freeze J-Foam 100 A+B will be spoilt. J-Foam 100 A+B is moisture sensitive. Keep containers in a dry place. Do not leave open to the air for long periods.

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