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# POLY FOAM SOFT

## Soft flexible PU Foam

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Supplied by: MB Fibreglass.

### 1. DESCRIPTION

Polyfoam Soft A+B is a two-part polyurethane foam system, when mixed together at the correct ratio, expands to form a low-density soft flexible foam.

### 2. ADVANTAGES

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

### 3. APPLICATIONS

Suitable for the production of film or theatre props where a lightweight flexible urethane moulding is required. May also be used for the filling of voids in costume making.

### 4. CHARACTERISTICS

a.)	Polyfoam Soft	Polyfoam Soft
	Part A (Polyol) Liquid	Part B (Isocyanate) Liquid
Appearance		
Colour	White	Amber
Specific Gravity /gcm <sup>-3</sup> @ 20°C	0.997	1.23
Viscosity/mPa.s20°C	1900	250

#### b.) Mixing

Mix ratio: 100 Parts Polyol (Part A): 50 Parts Isocyanate (Part B)  
(By Weight) (By Weight)

Cream Time: 27 seconds

Rise Time: 200 seconds

Free Rise Density: 72

**Mix ratio:** Poly Foam Soft can be used at 2:1 by weight. This will produce a soft foam. The isocyanate content may be increased in order to obtain firmer foam or decreased for a softer foam. 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.

**Preparation:** For good release Poly Foam Soft should be cast into either silicone rubber jacketed rigid mouldings, or a GRP rigid mould using MacWax 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 (i.e. zero it) and weigh directly into the polyol the required amount of Part-B. Rapidly mix both parts and immediately pour into your waiting mould. Close the mould allowing only small air vents to prevent air pockets forming.

Demould after at least 10 minutes, once the foam is tack free and fully cured.

## 5. HEALTH & SAFETY

(Refer to Health & Safety Data Sheet)

Handling and mixing of Poly Foam Soft 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.

## 6. SHELF LIFE

Poly Foam Soft A+B have a minimum shelf life of six months when stored in the original containers at temperatures between 18 and 25°C.

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