J-Foam 406 A+B

Flexible Integral Skin PU Foam

1. DESCRIPTION

J-Foam 406 A+B is a two part polyurethane black foam system, when mixed together at the correct ratio, expands to form a medium-density flexible foam.

2. ADVANTAGES

- Self skinning in a closed mould.
- Soft and flexible.
- High Durability.
- CFC Free.
- Easily cut with a sharp knife.

3. APPLICATIONS

Suitable for production of film or theatre props where a medium weight flexible urethane moulding is required. Designed for hand mixing. Typical moulded densities are 350-700 kg/m^3.

4. CHARACTERISTICS

a) CONSTITUENTS:

	J-Foam 406 Part A (Polyol)	**J-Foam 406 Part B (Isocyanate)**
Appearance	Liquid	Liquid
Colour	Black	Amber
Specific gravity /gcm^{-3} @ 20°C	1.04	1.22
Viscosity /mPa.s 20°C	1000	220

b) MIXING:

Part A Polyol	**Part B Isocyanate**	**Cream Tim / Secs**	**Rise Time / Secs**	**Free Rise Density g/l (or Kg/m^3)**
100	33	18	95	155

Mix Ratio

J-Foam 406 can be sued at about 3:1 by weight. This will produce a soft foam. The isocyanate content may be increased in order to obtain a firmer 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.

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 406 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 (18 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 10 minutes, once the foam is tack free and fully cured.

c) TYPICAL MOULDED PROPERTIES

Density/kg/m^3 [BS4343]	300-500
Skin Hardness [Durometer]	30-55 Shore A
Elongation at break / % [BS4443]	60
Tensile Strength / % [BS4443]	540

5. PACKING

Available in 8kg kits.

6. HEALTH & SAFETY

(Refer to Health & Safety Data Sheet)

Handling and mixing J-Foam 406 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 406 A+B has a minimum shelf life of six months when stored in the original containers at temperatures between 18ºC and 25ºC.

Note: If allowed to freeze J-Foam 406 A+B will be spoilt. J-Foam 406 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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