



## GELFLEX

CL00011 - natural

- A remeltable PVC material
- Forms a flexible mould
- Good tensile strength and flexibility
- Allows castings with deep undercuts
- Melts at 130° / 135°C
- A release agent is not normally required
- Can be cut up, remelted and reused

### HEATING APPLIANCES

A purpose-designed melter is strongly recommended, however, quantities up to say 1kg can be very carefully melted in a metal saucepan on an electric hot plate or gas ring. Larger quantities, up to 5kgs can be melted in an aluminium Maslin Pan with a flat base, the tapered pan being supported by a cylinder of sheet aluminium under the handle brackets so that the base is 10mm above the surface of the hot plate.

In all cases lids should be fitted, a thermometer used to prevent overheating, and kept under constant attention. The equipment must stand on a fireproof bench or floor.

Neither of the above methods are advised for permanent usage, as both these methods can be quite hazardous and are not recommended for very regular use. Oil and water baths are unsuitable. Small quantities of rubber can be melted in a Microwave Oven, place the diced material in a microwave proof container, cover with cling film and heat for around 4 minutes at a high setting.

### MELTING INSTRUCTIONS

Cut the rubber into small pieces and melt small quantities stirring gently with a wooden spatula to achieve an even temperature and prevent burning. When the compound becomes liquid continue adding small amounts, stirring occasionally until the total amount is liquid. If the material overheats it will fume heavily and rapidly change to a dark brown colour, immediately remove from the heat and avoid breathing the fumes.

### MOULD MAKING

A model of almost any rigid material can be used providing it will withstand the melting point of the compound. Porous materials such as plasters, wood, cement, etc. should be sealed to prevent entrapped air escaping and forming bubbles on the mould face. This can be done applying two coats of a solvent-based lacquer especially designed for use with PVC rubber. We understand that 'PVA' also makes an effective sealer.

Metal or non-porous models do not require sealing before pouring PVC Rubber. Models should be secured to a level baseboard.

For large moulds, some form of support will be necessary. For example, a sheet of aluminium rolled into a cylindrical shape and placed around the model. This should be tied to prevent unrolling.

Before pouring, place damp modelling clay or similar material tightly around the outer base of the cylinder to prevent leakage.

In cold conditions, large, bulky models should be slightly warmed to prevent air bubbles and splashes, take care not to pour the liquid directly onto the model.

Continue pouring until the model is covered to a depth of at least 25mm above its highest point.

Allow the rubber to cool and set before removing the mould from its support. Most models can be eased gently from the mould by hand.

If the model has undercuts, which prevent it coming away freely, then the mould will have to be cut. Where possible cut the back of the mould and use a number of elastic bands to hold the mould in position, the cut edges will then not interfere with the castings.

The mould is now ready for use without the use of release agents. Small blemishes in the mould, such as blisters, may be repaired by gently playing a small flame, such as a gas jet over the defect until it melts to a smooth surface. A heated knife-blade is also useful to even out rough spots, bubbles and make good repairs.

## REMELTING


When the mould becomes worn, it can be cut up; any dirt can be washed off with water and household liquid detergent without affecting the compound. After cleaning the material is ready for melting. The melting appliance should be clean and free from charred material. Burnt or very old Gelflex should not be re-used.

## HEALTH & SAFETY

PVC Rubber is made from polymerised PVC resin, and is considered quite safe to handle provided sensible precautions are observed. When melting there will be some fuming which is more unpleasant rather than harmful. Adequate ventilation is therefore very important.

- Prolonged skin contact should be avoided, a barrier cream can be used.
- Avoided ingestion and contact with food and drink. In the event of ingestion, seek medical advice.
- Molten PVC Rubber is hotter than boiling water and will stick to the skin - handle with suitable gloves and eye protection.
- In the event of a skin burn, place the affected area under cold running water for at least two minutes, or apply an anti-burn ointment with a loose bandage or dressing, to avoid air contact. In serious cases, seek medical advice.
- If molten PVC Rubber is to be carried any distance, suitable containers should be used with well fitted lids.
- PVC Rubber is solvent free with a flash point of approximately 320°F it will not ignite rapidly but a persistent fire could cause ignition and decomposition which is acidic and toxic in nature. In the event of a fire, use dry sand or CO<sup>2</sup>.

## FURTHER INFORMATION

 The recommendations and technical information given in this leaflet is based on the manufacturers research and its accuracy is made and it is understood that you will, by your own tests, determine the suitability of their products and the technical information supplied by us for your own particular purpose.

 For accurate temperature taking use a probe thermometer.

 Gelflex can be purchased through our shop or from our website.