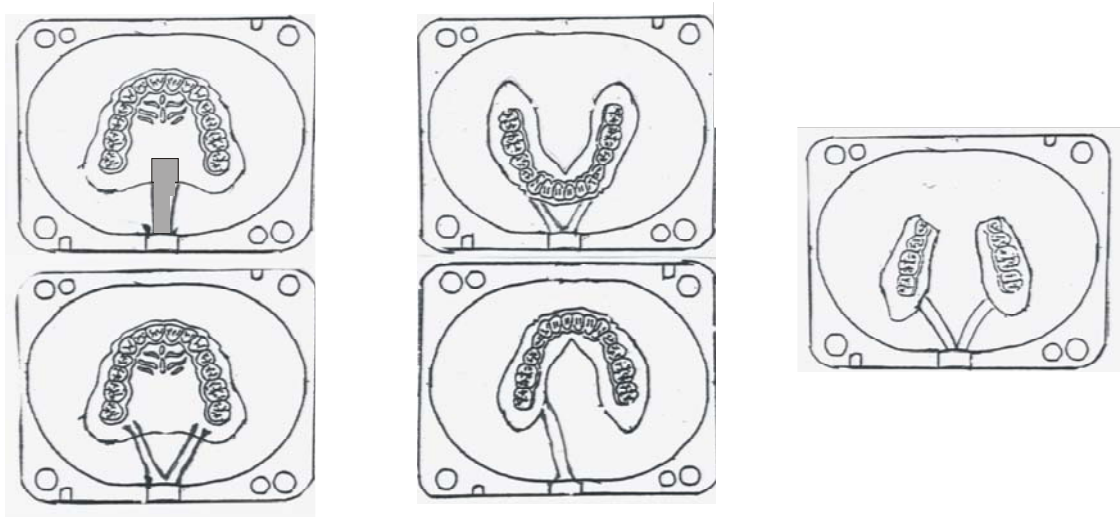


**Use provided for:** Material for the pressure-injection of partial or total prostheses in dentistry.

**Operational phases:**

- Make the master model using class IV plaster, then proceed to assemble the artificial teeth, use the conventional technique to favour the adhesion of the artificial teeth, creating a retentive place on the tooth base. Once the assembling of teeth has been carried out, finish the wax with the thickness desired, then put the model in the muffle using the specific injection muffle.
- To put the model in the muffle use a hard plaster (to avoid ruptures during the pressure-injection phases). Once the mould has been made, place the injection channels following the description supplied below:



Ex. Upper prosthesis (Fig. 1)      Ex. Lower prosthesis (Fig. 2)      Ex. Partial prostheses (Fig. 3)  
 • The channels must be 5 mm thick.

Before pouring the die, insulate the muffle using a conventional insulating material, whereas in order to insulate teeth from the plaster of the die we recommend the use of a liquid silicone insulating material, e. g. Separating Fluid (Ivoclar). Insulating materials with granules are not recommended, as during the pressure-injection phase they may cause a displacement of teeth.

- Once this phase has been carried out, close the muffle by tightening the screws, pour the die using the same plaster.
- After the plaster has set, the muffle is to be placed in hot water in order to soften wax, then unscrew the fixing screws, open the muffle and use a vapour machine to clean the muffle. Isolate with the hot muffle both the model and the die, using a silicone insulating material (e. g. Separating Fluid (Ivoclar)). Before closing the muffle again, make sure that there are no plaster residues, which may detach during the pressure-injection phase, thereby mixing to the molten material.
- Prepare the product The.r.mo.free, taking out of the package the necessary amount of the colour chosen. Introduce the colour in its container, carefully following the indications reported in the instructions for use, according to the type of equipment used.

**Operational phases using the Pressing J100 equipment**

- Programme the equipment according to the following data:
- Melting temperature: 220° C
- Melting time: 12'
- Heating time after injection: 1'
- Cooling time under pressure: 30'
- Injection pressure: 5 atm.
- Use the centring device with the thermal-insulating material.
- Place the cartridge in the equipment hollow, close the protection door and start the automatic pressure-injection procedure.
- For a better sliding of the melted material, we recommend you put the hot muffle 4-5 minutes before the injection is carried out, when the timer n° 1 indicates 05-04.

To carry out this operation, take the muffle with thermal insulating gloves, open the small door of the equipment, (this shall stop the heating cycle), place the muffle on the centering device very rapidly, stall the manual press, close the small door and press the 'Automatism' button again. In this case the equipment shall start from where it stopped.

### **Operational phases using the Actio type of equipment**

- Programme the thermoregulator at 220° C. Place the cartridge in the equipment hollow, close the safety door and turn on the oven. (In case the centring device has no thermal insulating material, the muffle must be placed on the oven only 4-5 minutes before the injection time.
- the material has reached the melting temperature).
- Wait until the temperature of the thermoregulator has reached 217/218° C, then using a timer, programme 12 minutes (melting time of the product). After this time has elapsed, act on the knob placed on the base of the equipment and start the manual injection phase, following the indications reported on the instruction manual of the equipment. (This operation has to be carried out very rapidly, to avoid the cooling of the material).
- Programme the timer again at 1', after this time has elapsed, turn off the oven and wait for at least 30', before taking the muffle out of the equipment.

### **Removing the prosthesis from the muffle**

- The muffle can be opened only when it has reached room temperature (do not cool the muffle with water).
- Unscrew the fixing screws and carefully open the muffle, separate the injection channels using a conventional burr.
- Once the prosthesis is removed from the model, finish it using conventional burrs at moderate speed, in order to prevent them from heating the product.

### **Polishing:**

The first polishing can be carried out with pumice, whereas the final polishing must be carried out using non-aggressive pastes (for ex. Universal Polish).

- In both cases use only low – revolution cotton brushes to prevent the material from overheating (for ex ample a handle brush with a 20 mm diameter on a 20.000/40.000 - revolution handle, polish at 5/10 second intervals exerting a slight pressure; follow the same procedure with 80 mm - diameter brushes with 2800 revolution / min equipment).

To remove (polishing) residues, wash the prostheses with water only, and use non-abrasive materials, do not use ultrasound equipment with acids that can modify their requisites.

### **Repair:**

The The.r.mo.free resin can be repaired both by using cold-acrylic resins of conventional type (powder and liquid), and by using the same product. In the first case follow the manufacturer's instructions, be careful in any case during the repair phase, as the monomer is very aggressive towards the The.r.mo.free resin. When using the monomer, therefore, moisten only the parts concerned.

If the prosthesis is going to be repaired with the same resin (The.r.mo.free), it is necessary that it be placed in the muffle again, then follow all the pressure-injection procedure. You need to assess previously the retentions, in case of repair, as well as the necessary spaces, in case of re-basing.

### **Rebasing (relining)**

- The The.r.mo. free resin can be rebased both by using the same product, and by using a conventional cool-acrylic resin (Powder and liquid).
- In the first case it is necessary to remove the old resin completely, re-model the wax prosthesis and place it in the muffle, then follow the steps for pressure-injection.
- In case the prosthesis is rebased using conventional acrylic resins, the old resin is to be removed partially to obtain enough space for the new resin to be used. In this case refer to the specific instructions for use provided by the manufacturer.
- Warning: the resin The.r.mo.free can be re-based only using resins that polymerize at a temperature lower than 60° C, as higher temperatures may cause distortions.