



TECHNICAL DATA SHEET POUR TYPE ACRYLIC RESIN PDFTPT-082

1 PRODUCT OVERVIEW

Methacrylate polymers have become very popular in dentistry because they are easily processed using relatively simple techniques, they have the ability to provide the essential properties and characteristics necessary for use in oral restoration. One of the main applications is for the elaboration of dental restorations such as partial and removable total prostheses. These prostheses are made up of artificial teeth placed on an acrylic base as a support to maintain contact with the oral tissues, rehabilitating the chewing, phonetic and aesthetic function. This acrylic resin allows to make the dental prosthesis in just 1 hour, thus facilitating the work time in the laboratory, in addition, it gives a better finish since the wax-up is copied with agar (in liquid state) instead of plaster, therefore the prosthesis is cleaner.

2 COMPOSITION INFORMATION

Polymer components: Self-polymerizing acrylic (Type II).
Poly (methyl methacrylate).
Pigments.
Polyester (if a reference with mottled appearance is required).
Additives.

Components of self-polymerizing monomers (Type II).
Methyl methacrylate.
Dimethacrylate ethylene glycol.
Amine-type chemical initiator.

3 PRODUCT PROPERTIES

The physical properties of polymers are measured in the Quality Control Laboratory by using specialized and calibrated equipment, based on the ISO 20795-1 standard. The following table shows the most relevant physical properties.

Parameter	Requirement	Experimental Result
Absorption	It must not exceed 32 $\mu\text{g}/\text{mm}^3$	22.8
Solubility	It must not exceed 8.0 $\mu\text{g}/\text{mm}^3$	0.77
Flexural strength	Minimum 60 MPa	62.18
Flexural module	Minimum 1500 MPa	2358.27
Residual Monomer	Maximum 4.5% in weight	2.24

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4 USE AND APPLICATIONS

The composition of the self-polymerizing acrylic resins for using by means of pouring technique (monomer and polymer) Veracril® Pour, Opti-Cryl® Pour are indicated for the preparation of dental restorations such as total, partial, and removable prostheses. The product has following characteristics:

- The time required for the preparation of the dental restoration is one hour and allows an optimal working time for its pouring.
- It requires a heat treatment by means of pressurization equipment.
- It is easy to polish, allowing it to regain its shine.
- By using the indicated polymer and monomer ratio, vertical contractions and linear contractions that the acrylic structure may suffer are avoided.
- Provides essential properties and characteristics necessary for use in the oral cavity.
- Easy to manipulate.
- They show sufficient translucency to give the natural appearance of the replaced oral tissues.

5 PRODUCT QUALITY ASSURANCE

Acrylic resins are manufactured with raw materials of the highest quality, through a completely standardized productive process certified under both ISO 9001 and ISO 13485. Besides, the compliance with the requirements of the ISO 20795-1 standard is verified in the Quality Control Laboratory for the finished product by means of specialized equipment.

Water absorption and solubility: Verifies the amount of water that the acrylic resins absorb or the amount of weight they lose when immersed in water. Acrylic is insoluble in saliva or in any other fluid present in the mouth.

Porosity: The processed acrylic has a surface free of imperfections and porosities.

Bending strength and Flexure Module: They measure the degree of deformation of acrylic resins to be able to support occlusal forces exerted at the time of use. Additionally, they measure the force a resin supports until fracture, which guarantees their good clinical performance.

Translucency: An object must be visible when placed on the opposite side of the acrylic test piece.

Residual Monomer: The content of monomer that may remain during the preparation of the prosthesis must be minimum in order to ensure absence of irritation in the mouth tissues.

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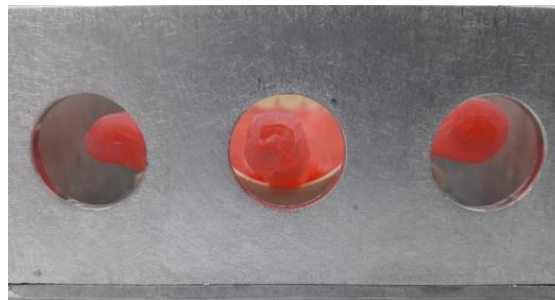
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6 INSTRUCTIONS FOR USE

WAXED AND EMUFLATED

- To use the conventional tooth waxing and alignment technique.
- To place the pouring sprues correctly for the acrylic resin on the back-palate side running it into the flask perforations.
- To hydrate the model in water at room temperature for approximately 30 seconds.
- To fix the model to the base of the flask with the help of plasticine.
- Set up the necessary elements for the flasking using the flask for the pour technique.
- To verify that the model does not have retentions at the base and / or around the bottom of the groove.
- To follow the instructions for the silicone or hydrocolloid duplicating material.



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WAX ELIMINATION

To remove the wax, wash the teeth and the plaster model with hot water using a metal rack. After the teeth are completely clean, place them correctly in position and apply a thin layer of Novafoil® plaster separator on the plaster model after washing the wax, brush very well to avoid excesses.



THE USE RATES FOR THE MIXTURE

For the preparation of the mixture measure by volume: 2.5 parts of polymer (powder) and 1 measure of monomer (liquid).

PREPARING THE MIX

The mixture is prepared in a suitable container (glass or porcelain container). To mix gently in a continuous cross pattern to avoid the generation of air and to ensure that the polymer particles are fully incorporated with the monomer until a semi-liquid mixture is obtained (consistency of honey).



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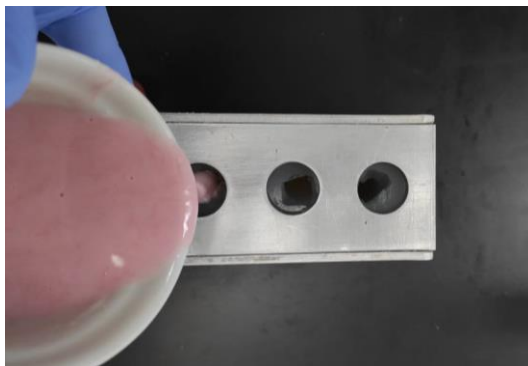
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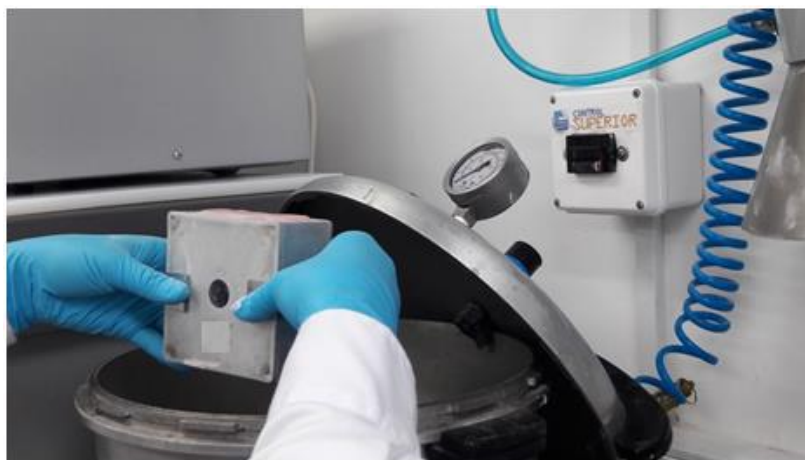
POURING

Pour the emptying into the muffle through the central hole, taking care to fill all three holes (the muffle must meet the requirements for the technique) and allow to stand for 3 to 4 minutes.



POLYMERIZING

Place the flask inside the pressurizing device in vertical position. Caution must be taken so that water does not touch the acrylic resin. Close the pressuring device and apply 30 pounds of pressure at a temperature of 60 °C during 20 minutes. Let the flask cool down before deflasking.



POLISHING

Use the regular procedure according to the dental laboratory techniques.

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7 COMMERCIAL PRESENTATIONS

Self-polymerizing acrylic polymer:

30 g, 40 g, 60 g, 125 g, 250 g, 500 g, 1000 g, 2,5 kg, 10 kg, 20 kg, 25 kg, 125 kg, 1 lb, 5 lb, 22 lb, 44 lb, 55 lb.

Self-polymerizing liquid acrylic:

15 ml, 30 ml, 55 ml, 110 ml, 250 ml, 500 ml, 1000 ml, 1 gallon, 200 L, 8 oz, 32 oz.

Self-polymerizing liquid and polymer kit:

- 1000 g of powder acrylic + 500 ml of liquid acrylic
- 500 g of powder acrylic + 250 ml of liquid acrylic
- 250 g of powder acrylic + 110 ml of liquid acrylic
- 125 g of powder acrylic + 110 ml of liquid acrylic
- 60 g of powder acrylic + 55 ml of liquid acrylic
- 30 g of powder acrylic + 15 ml of liquid acrylic
- 4 bottles per 40 g each of powder acrylic + 2 bottles per 55 ml of liquid acrylic
- 8 bottles per 40 g each of powder acrylic + 2 bottles per 55 ml of liquid acrylic

9. SHELF LIFE

Self-polymerizing acrylic polymer: Four (4) years.
 Self-polymerizing acrylic monomer: Two (2) years.

10. STORAGE AND PRESERVATION CONDITIONS

- Keep the product in a cool and well-ventilated place.

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- Keep it away from any flame or source of spark.
- No smoking.
- Keep it away from heat and direct sunlight.
- Store it away from oxidants, acids, bases and polymerization initiators.
- Do not store for long periods of time that exceed the useful life of the product.

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