

ACROSUN

Beauty of Smile

General Catalogue
2021- 2022



Manufacturer of Dental Acrylic (Poly Methyl Methacrylate)



BETA DENT
Exclusive Agency In Middle East



Beta Dent Company:

Using the valuable knowledge and experience of experts, Beta Dent operates as a leading company in the production and innovation of dental products.

By launching a research and development unit, Beta Dent pursues its goals to improve the quality of products and the production of new dental materials and it always has a development-oriented view of the future

Beta Dent products are exported to several countries with quality in accordance with international standards.

Beta Dent's Products:

- Types of artificial teeth made of Nano-Hybrid materials, Resins and composite fillers
- Heat Cure Acrylic with various colors
- Pouring Acrylic (Casting Acrylic)
- Cold Cure Acrylic
- Tray Acrylic
- Modeling Wax Sheet
- Duplicate Gel
- Pressure Pot
- Holder
- Pouring Flask
- Laboratory Universal Liquid Separator (Beta Film)



Acrylic Resins

The use of modern resins with acrylic base in dental technology is a great achievement in the manufacturing and performance dentures. Since the introduction of the first acrylic resins in 1963 until now, new materials and techniques have been introduced with the promise of improving the quality which Pouring acrylic is the new generation and high quality from this category.

In developed countries modern methods have replaced traditional ones, so Acrosun's goal is to provide high quality materials and introduce how to use them correctly.

In this regard, the company has conducted numerous training courses for introducing new products and techniques of making prosthesis.

Acrylic Pouring Injection

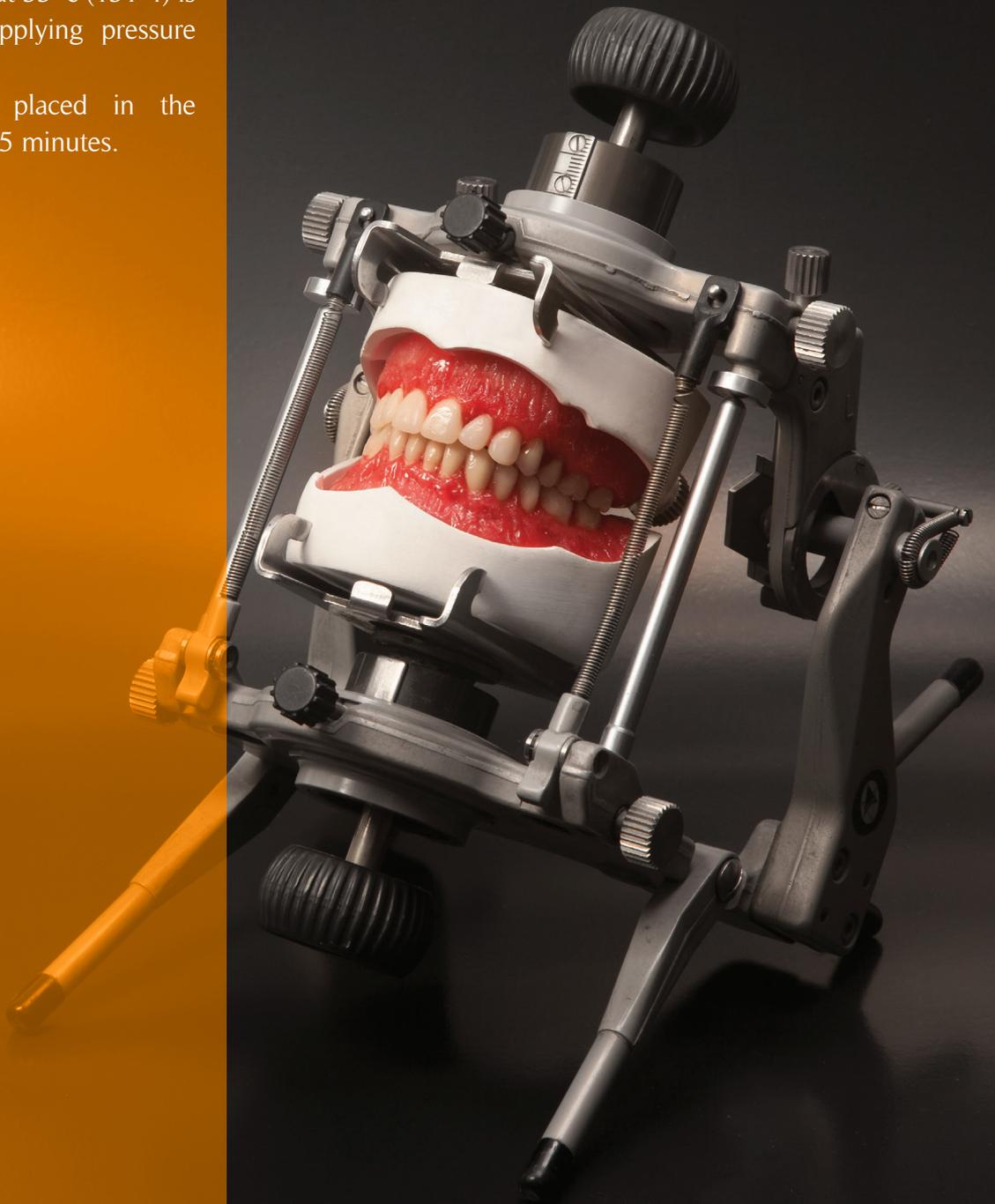
The acrylic casting curing system is Auto-polymerized.

The standard combination is 16 g powder and 10 ml monomer (liquid).

The polymer lubrication phase is 2 minutes.

Polymerization in pressure pot containing water at 55° c (131° f) is completing by applying pressure 1/5 to 2 bar.

Flask must be placed in the pressure pot for 25 minutes.





Pouring system (Acrylic casting)

After completing the modulation, remove the plaster cast from the Articulator and attach to the bottom of the Flask, fasten the Flask with snap and tighten the rubber at the end of the flask.

Melt the duplicate gel in a steel container, we must pay attention to the low flame as well as the mixing during heat treatment.

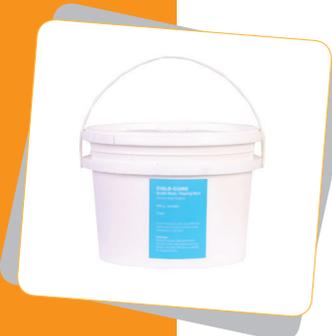
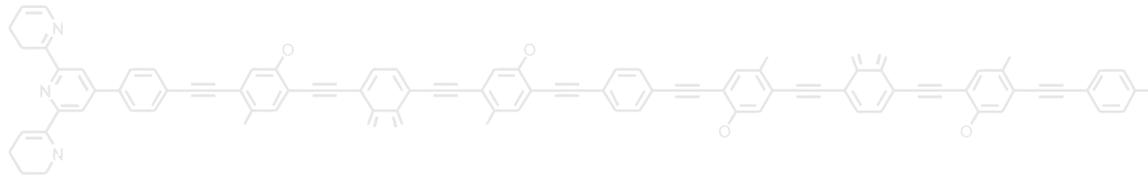
Due to the strong evaporation of the duplicate which gradually increases the concentration of the gel, add 5% water after each use of the duplicate gel.

The hot gel has a temperature of about 95° and this high temperature will destroys the wax inside the Flask, so we have to wait until the temperature drops to 50%,then pour the gel into the Flask. Put the hot duplicate Flask inside the refrigerator or cold water to cool it faster (Prevent water from penetrating the duplicate).

After cooling, open the Flask and remove duplicate and clean the plaster cast, arrange the teeth into the gel and in their original place.

Then from the bottom of the Flask and the location of the conical tires create a duct inside the duplicate with help of hollow steel tubes which are provided by manufacture with the flask.

Completely clean the cast, impregnate the biofilm and put it in its place.



Pouring Duplicate

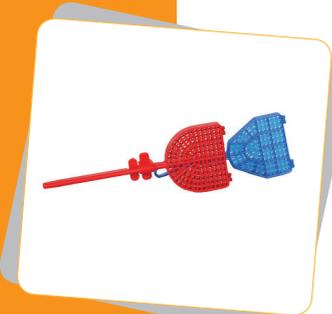
- Special gel for making injectable denture by pouring method.
- Melting point 93.5' c
- Net Weight 5 kg

Note that for duplicate melting, you must use a special melting device or Microwave because direct heat will cause damage to the gel. (Duplicate is not disposable and can be reused several times if used properly and hygiene observance.



Pressure Pot

- Pressure pot to make denture and complete the process of Auto-polymerization step.
- With safety and drain valve.



Holder

- To clean the teeth from wax and to set them in Flask.



Sheet wax (modeling wax)

- Modeling wax (pink) for use in making acrylic dentures and removable frames.
- Easy forming and temperature resistant when working.

Pouring Flask (muffle)

- Replacing old muffles to make denture by pouring method.



Acrylic Polymer for the production of Artificial Teeth:

From combining Methyl Methacrylate’s powder and liquid with certain weight ratio through radical polymerization method, Poly Methyl Methacrylate’s paste is obtained, then the paste is prepared in special molds and tooth is produced by applying mechanical pressure .



Artificial Teeth Acrylic
Special Grade

High Performance Polymer

Composition	Polymethyl Metacrylate (PMMA)
Form	White Powder (bead)
Viscosity	170190- ml/g
Water Content	0.51%-
Residual Peroxide Content	≤0.20%
Bead Size V50	40.50 μm
Storage:	Keep for 4 years in cool and dry place

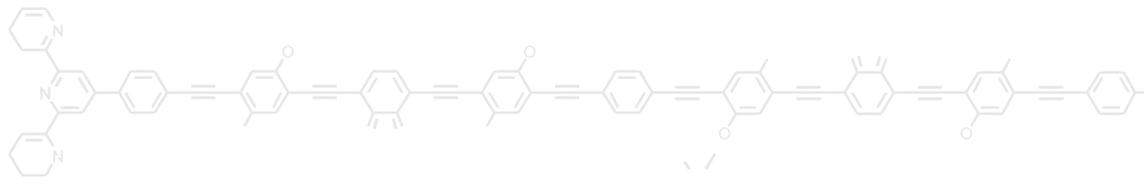
The difference between polymer Methyl Methacrylate used in the production of artificial teeth and gum is in the molecular mass of polymer and additives.

Beta Dent is Exclusive Agent of German’s Acrosun in the Middle East



The newest technique to make Gum prosthesis in the world





Acrylic Pouring

Acrylic Pouring powder and liquid.

Acrylic Pouring powder produces in accordance with world standard ISO 20795-1:2013

The chemical structure of acrylic Pouring is based on Methyl Methacrylate polymer which is produced at high molecular mass by adding catalysts and stabilizer in combination.

The use of acrylic Pouring for making the prosthesis is molded with low viscosity inside the Flasks. The above technique has a much higher quality than making traditional prosthesis.

Pouring application

- ⌘ To make full prosthesis
- ⌘ Implant-based prosthesis
- ⌘ To make Partial denture
- ⌘ Reline and repair

Numerous advantages in the new method

- ⌘ Standard biocompatibility with living tissue due to low residual monomer
- ⌘ Free of porosity
- ⌘ Easier application and elimination of some traditional prosthesis manufacturing procedures that save time
- ⌘ Volume stability and very accurate dimensions
- ⌘ Tooth and denture glaze (gloss) preservation after polymerization procedures
- ⌘ High quality in final product than traditional prostheses



Packing liquid	Packing powder
180 Liter Liquid	25 kg Powder
500 ml Liquid	500 g Powder



Heat-Cure Acrylic

The chemical structure of the Heat-curing prosthesis is based on the Methyl Methacrylate polymer which is produced by the addition of a catalyst and stabilizer.

To imitation of Methyl Methacrylate polymer with gum tissue in color and gloss, pigment and artificial fibers(streak) are added to the composition.

Note that we must first weigh the Methyl Methacrylate monomer and pour into the container, then slowly add the powder to the monomer. The composition ratio of powder to liquid is 20 gr to 10 ml and the polymerization time is 45 minutes after the boiling point begins.

Application of Methyl Methacrylate powder

- ⌘ Making full denture
- ⌘ Implant-based prosthesis
- ⌘ Partial denture
- ⌘ Reline

The advantages of Acrosun Heat-cure Acrylic

- ⌘ Color variations according to the color of the gum tissue
- ⌘ High polishing and glazing capability
- ⌘ Free of bubbles in the muffling process
- ⌘ Strong chemical bonding with artificial tooth
- ⌘ Contains stabilizers against color changes
- ⌘ lack of volume changes

Suitable temperature for making prosthesis is 22 ° C.

Cause of fragility of the prosthesis:

- 1- The high curing time that destroys the bonding of intermolecular networks.
- 2- Nonconformity of Powder and Methyl Methacrylate's proportion

Bad denture's odor causes:

Polymerization will not be completed if the cooking time is less than the company's recommended time. Release of residual monomers and its combination with oral moisture will result in bad odor in denture.

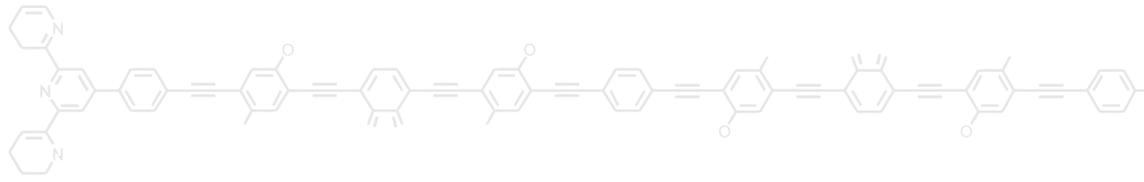
Cause of bubble formation in prosthesis:

The cause of the bubble is the use of powder and liquid from two different brands. Acrosun monomer has anti-bubble in it and no bubbles will be created if be used with Acrosun's powder.

Available colors:
 A27 – A45 – A63-A81, Transparent (without color)
 Dentin and Trance tooth color according to the Vita-Ivoclar Shade A1 -A2- A3 -A3/5



Acrylic Liquid packing	Acrylic Powder packing
180 Liter Liquid	50 Kg Powder
2x250 ml Liquid	1 Kg powder
250 ml Liquid	500 g Powder



Self-Cure Acrylic

The chemical structure of self-curing acrylic is based on Methyl Methacrylate polymer. The catalyzer is added to the chemical combination of powder and liquid. This product is offered in a variety of color shades by the manufacturer and it is of very high quality.

Cold-cure application:

- ⌘ Repair and correction of dental prosthesis
- ⌘ Reline

Advantage of ACROSUN cold-cure (Instant Acrylic)

- ⌘ Create strong chemical bonding at the repair site
- ⌘ Low odor catalyzer in the monomer combination
- ⌘ High color variation
- ⌘ High polishing and glazing capability



Available colors:
 A27 – A45 – A63–A81, Transparent (without color)
 Dentin and Trance tooth color according to the Vita – Ivoclar color Shade A1 – A2– A3– A3/5



Acrylic liquid packing	Acrylic Powder packing
180 Liter Liquid	50 Kg powder
250 ml Liquid	500 g Powder



Acrylic Tray

Acrylic Tray powder is produced based on Self-cured Polymethyl Methacrylate with combination of mineral materials, catalyst and softeners.

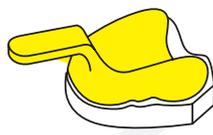
Self-cured acrylic Tray offers in Green, Yellow and Pink and Turquoise color shade.

Application of Acrylic Tray

- ⌘ Making special tray
- ⌘ Making baseplate

Available Colors

⌘ yellow



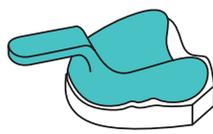
⌘ green



⌘ Pink



⌘ Turquoise



Advantages of ACROSUN Acrylic Tray

- ⌘ Available in 4 different colors with timing depending on temperature of the hot and cold area
- ⌘ Lack of sharp odor in acrylic liquid which can lead to allergic
- ⌘ With no porosity
- ⌘ Proper timing to form when working
- ⌘ easy separation from the cast

Composition ratio: 1 gr powder per 2 ml monomer

Acrylic Liquid packing	Acrylic Powder packing
180 Liter Liquid	50 Kg Powder
250x2 ml Liquid	1 Kg Powder



Beta Film:

It is produced from the combination of Sodium alginate, distilled water, pigment and other organic additives.

After impregnating the separating liquid on the surface of the plaster cast, a layer is formed in the form of a very thin film that completely covers the surface of the cast and prevents adhesion between the acrylic polymer and the plaster, it also facilitates the removal of the prosthesis and prevents the negative effects of moisture in the plaster cast on the acrylic paste.

Advantages of separating liquid :

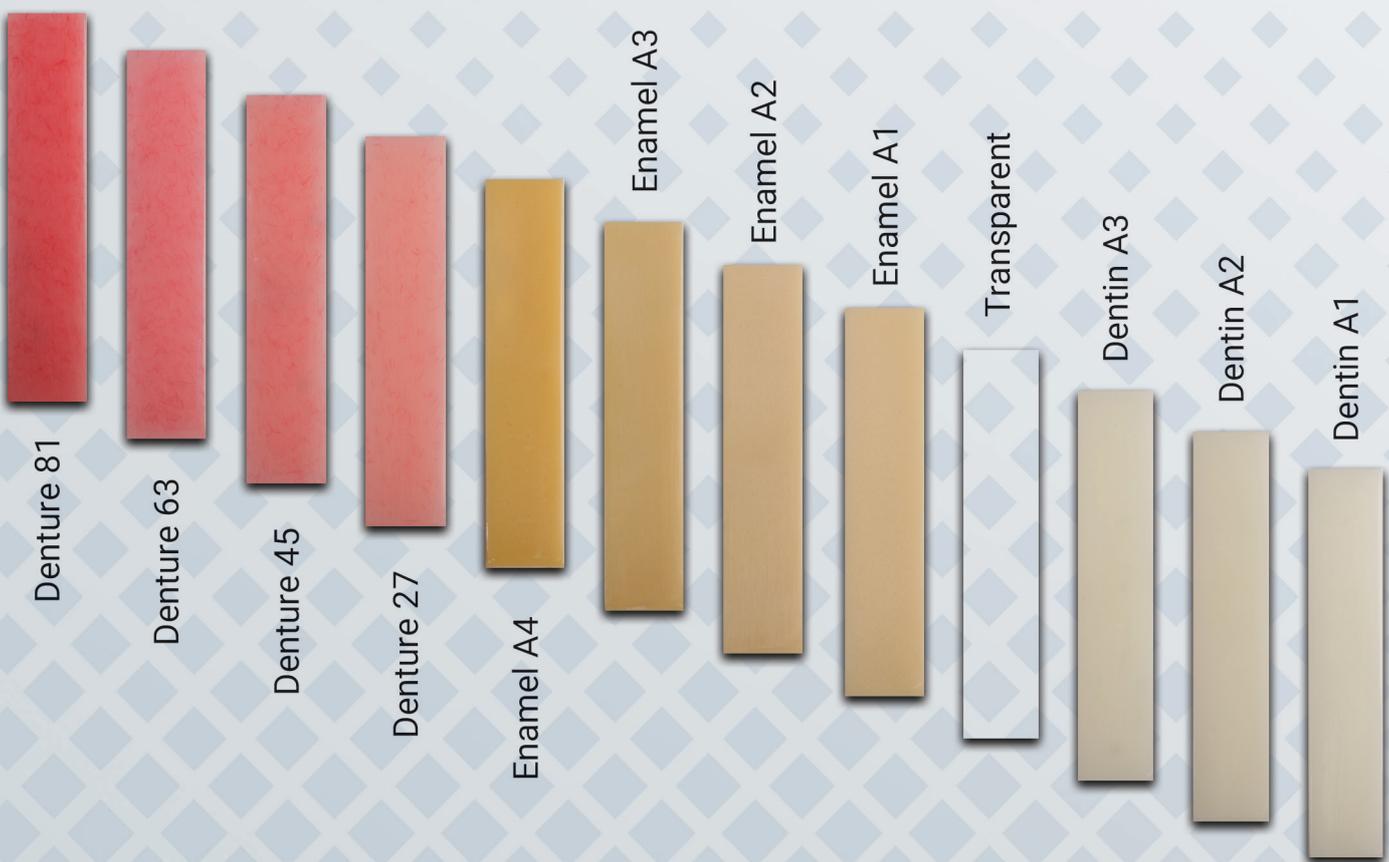
- Forming a layer with a uniform thickness
- Lack of gel liquid when repeatedly impregnated on the cast
- Easy to use
- Stability and durability of the created layer after drying the separating liquid
- Desired color and smell
- Long shelf life





Heat cure & cold
cure powder colors

Dentin & Enamel heat
cure and cold cure colors





Beta Dent a producer of Artisical Teeth and Dental materials

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