BETADENT

Manufacturer of Dental Materials

Beauty of smile

BETADENT

The Producer of Artificial Teeth and Dental Materials

Beta Dent knowledge-based company

Beta Dent Company has been active in the field of dental material production since 2003. This company, equipped with a research and development unit composed of experienced experts and specialists in dental materials, has consistently taken steps to enhance technical knowledge and innovation.

This leading company, by utilizing cutting-edge technology and adhering to strict international standards, has successfully produced and exported high-quality dental products.

In line with the implementation of quality requirements, this company has successfully obtained ISO 17025 certification for its quality control laboratory and was recognized as a distinguished and exemplary unit at the national level in 2024.

Beta Dent, in order to evaluate and compare the quality of its products with leading global brands, collaborates with reputable domestic authorities, including the Polymer and Petrochemical Research Institute of Iran and research centers at dental schools across the country. As a result of these collaborations, the company has received scientific and specialized certifications from these institutions.

Currently, Beta Dent produces more than 30 types of strategic and widely-used products in the fields of dentistry and laboratory applications, positioning itself among the largest domestic manufacturers in this industry.

Mission:

Our mission is to continue growth and investment in research and development with the aim of enhancing quality, fostering innovation, and expanding our product portfolio while effectively responding to customer needs. We are committed to valuing customer satisfaction and aim to have a meaningful and value-creating presence in various parts of the world.

Beta Plus (Nano-Hybrid Light-Cured Composite):

The Nano-hybrid light-cured restorative material is used for repairing fractures, cavities, addressing cracks, reshaping, color correction, and restoring the aesthetics of natural teeth. The Beta Plus restorative material effectively recreates natural characteristics such as color and translucency, and it boasts long-lasting color stability and high strength.
To enhance the properties, TEGDMA is utilized as a cross linker, along with BIS-GMA and UDMA, in the organic matrix of the dental composite resin.
Mineral fillers with particle sizes ranging from 1 to 20 nanometers are modified using coupling agents to prevent phase separation by creating strong interfacial adhesion between the mineral fillers and the organic matrix and to result in desirable mechanical properties.

Applications:

- Restorations of posterior and anterior teeth, Class 1 to Class 5
- Indirect restorations of inlays and crowns
- Fissure sealants for molars and premolars
- Aesthetic enhancements and reshaping of teeth

Features:

- Color matching similar to natural teeth and high color stability
- Excellent polishability, resulting in ideal shine and gloss
- High resistance to wear, bending forces, and occlusal stresses

Beta Flow (Flow Composite):

Beta Flow hybrid composite is a light-curable material designed to penetrate narrow and deep cavities in the cervical or proximal regions. This type of composite is capable of achieving a strong mechanical bond, allowing for effective adhesion without the need for bonding agents (directly after etching).
The flow composite is formulated from acrylic-based resins and Nano-sized low viscosity mineral fillers. This low viscosity enables the creation of very thin and void-free layers.

Applications:

- Direct restorations for classes 3, 4, and 5
- As a liner for filling classes 1 and 2
- As a reparative material for damaged areas of indirect restorations
- Application as a fissure sealant
- Repair material for temporary fillings

Features:

- Excellent color matching with natural teeth
- Ability to fill narrow and deep cavities
- Low shrinkage and appropriate fluidity
- High color stability
- Adequate radiopacity

Beta Glass (Glass Ionomer):

Beta Glass is a protective and restorative cavity-filling material that is light-curable and possesses high compressive strength along with strong adhesion to dentin and enamel. This material has fluoride-releasing properties, making it suitable for use as a base for any type of restoration.
The combination of a light-cure resin and Nano-sized fillers provides excellent mechanical and chemical properties, allowing this material to withstand occlusal surface pressures effectively.

Applications:

- Can be used as a liner and base under various filling materials.
- Suitable for use as a fissure sealant.
- Applicable for direct restoration of minor damage.

Features:

- Easy handling and direct injection into the restoration site.
- Exceptional chemical bonding with enamel and dentin.
- Contains fluoride to prevent secondary caries.
- High radiopacity.
- User-friendly handling.

Beta Bond (Self-Etch Bonding):

In a self-etch system, the primer, adhesive and conditioning are applied simultaneously. The enamel surface, due to its high mineral content and unique structure, forms a suitable mechanical bond with this type of bonding, effectively sealing the dental cavity.
The unparalleled advantage of self-etch bonding is the increased long-term durability of the bond to dentin. This generation of bonding prevents micro-leakage through optimal coverage, thereby reducing post-operative sensitivity and secondary caries. Generation 7 bonding does not interfere with aesthetic restorations or cements due to the absence of yellowing, and the combination of primer and bond simplifies its application.

Applications:

- Suitable for all classes of restorations
- For bonding ceramics, veneers, crowns, inlays, and other indirect bonding materials
- Appropriate for long-term restorations

Features:

- Excellent performance in moist dentin surfaces and suitable for use inside canals
- Complete polymerization even in the apical area
- Contains solvents and homogeneous monomers to enhance penetration and create strong bonding
- Optimal viscosity for achieving minimal thickness

Beta Bond (Generation 5 Bonding):

Generation 5 light-curing and single-step bonding agent is compatible with the walls of the dental cavity, minimizing micro-leakage between restorative materials and the tooth while establishing a very strong chemical bond with dentin and enamel.
The formulation includes 2-hydroxyethyl hexyl acrylate (HEMA), and this product has hydrophilic properties. Achieving dry and moisture-free dentin and enamel surfaces after etching may pose a risk to the dental pulp. Therefore, the use of Generation 5 bonding with the ability to bond to wet surfaces is highly recommended (Wet-Bonding).

Applications:

- For the restoration of cavities Class 1 to 5
- Use for root canals before pin placement, filling, and as a primer for injections
- Repair of fractured crowns made of porcelain, hybrid ceramics, and resin composites
- Usable on slightly moist dentin surfaces

Features:

- Very strong adhesion to dentin and enamel
- Reduced sensitivity at the canal surface
- Minimal micro-leakage
- Solvent-free product (no change in viscosity over time)

AtraLay (Pattern Resin):

AtraLay pattern resin consists of a powder component and a liquid component. In the application, these two components are mixed in an appropriate ratio with the pattern resin, and an impression is taken from the site. Mixing the two components initially creates a moldable paste, which hardens upon application to the impression site and retains its shape. The pattern created is then used to fabricate the desired mold.

Applications:

- Fabrication of inlays, onlays, and Maryland bridges
- Creation of bars and clasps in partial dentures
- Construction of jig and core in implant techniques
- Fabrication of splints for soldering

Features:

- Repairable
- No need for wetting agents on metal surfaces
- Excellent wettability and fluidity, preventing material from flowing into adjacent areas
- Creation of completely smooth and uniform metal surfaces due to no residue formation from burn out
- Minimal shrinkage, resulting in highly accurate wax patterns and excellent fit in restorations
- Exceptional hardness, strength, and dimensional stability without distortion even in very thin layers

Acrosun Temp (Temporary Acrylic Crown):

Self-curing acrylic polymer is composed of two components: powder and liquid, and is used for making temporary crowns and bridges. This product protects prepared teeth from external factors and maintains occlusion (proper contact of teeth when jaws are closed). After mixing the powder and liquid, a paste is formed that is moldable and capable of shaping the anatomy of the prepared tooth. This material is compatible with intraoral temperatures and can be polished easily. The final crown is placed using a suitable temporary cement, preferably zinc oxide without eugenol (to prevent interference with permanent cement in the future).

Applications:

- Protection of prepared teeth until the delivery of permanent crowns or bridges
- Maintenance of tooth positioning for better fit of the final crown
- Provision of temporary aesthetics
- Evaluation and testing of bite alignment (occlusion) before constructing a permanent crown
- Prevention of gum irritation

Features:

- Tooth-colored to match natural dental tissue
- Available in 4 colors : A1, A2, A3 and Bleach according to the Vita shade guide
- Suitable working time and setting time
- Compatible with other types of plastic crowns

Beta Light (Temporary Composite Crown):

The self-curing composite temporary crown material is a resin with chemical polymerization technology designed for creating various temporary crowns, bridges, and restorations. This product hardens without the need for a curing light and only through a chemical reaction between the two active components in a short time, providing strength and performance for temporary dental applications.

Applications:

- Fabrication of temporary crowns for prepared teeth
- Temporary restorations in multi-step treatments
- Use as a temporary core build-up before permanent crown fabrication

Features:

- Fast chemical setting without the need for light (light-cure)
- Suitable working time and setting time
- Easy and direct application
- High mechanical strength against pressure and wear
- Aesthetically compatible and non-irritating to oral tissues
- Available in shades A1, A2, and A3 to match natural tooth colors
- Easy trimming and polishing for better aesthetics

Beta BCS (Bio-Ceramic Sealer):

A new generation of root canal filling materials based on bioactive calcium silicate, Beta BCS bio-ceramic sealer provides high biocompatibility, antibacterial properties, and the ability to form hydroxyapatite, offering a novel solution for successful endodontic treatments.
Due to unique physical and chemical properties, including Nano-metric particle size, appropriate viscosity, low solubility and strong adhesive properties, Beta BCS sealer effectively fills the space between the canal walls and gutta-percha, providing stability and sealing.

Applications:

- Filling root canals
- Repair of perforations in roots or pulp floor
- Apexogenesis and apexification in immature teeth
- Retreating root canals
- Use in apical surgery (apex resection)

Features:

- High biocompatibility and non-toxicity
- Excellent sealing and prevention of microbial leakage
- Formation of hydroxyapatite and chemical adhesion to dentin
- High pH after setting with antibacterial properties
- Minimal expansion for improved sealing
- No shrinkage during hardening
- Appropriate radiopacity
- Suitable working time and setting time

Beta RCS (Resin Sealer):

Beta RCS is a non-acrylic and eugenol-free resin sealer for root canal treatment, consisting of a powder component and a liquid component with all the characteristics of ISO 6876. After mixing powder and liquid it undergoes a polymerization process, becoming a solid material. This sealer is used with gutta-percha in all root canal filling methods. Beta RCS includes a tube with resin weighing 10 grams and a powder hardener weighing 8 grams, mixed in a ratio of 1:8.

Applications:

- Suitable for general and specialized root treatments
- Usable in straight and curved canals
- An ideal choice for dentists seeking a cost-effective and high-quality product.

Features:

- High adhesion to canal walls and gutta-percha, reducing the risk of leakage
- High biocompatibility: safe for surrounding tissues and causes less tissue sensitivity
- Resistance to dissolution in tissue fluids, contributing to long-term stability
- Dimensional stability: this sealer does not shrink during setting and maintains its volume
- High radiopacity: visibility in radiographs for evaluating filling quality
- Antimicrobial properties: antibacterial materials help reduce the risk of infection in the root canal

BETADENT

Combining knowledge and experience
Realization of development and innovation

Beta RCS
Beta BCS
Beta Plus
Beta Flow
Beta Light
Beta Bond
Beta Glass
AtraLay Resin
Acrosun Temp

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