Dentium Workflow Solution for Labs
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Dentium has created its own zirconia block in various shades and flexural strengths to reproduce as closely as possible, the natural human tooth. Dentium has gone even further by developing solutions and substances to provide users the control over the aesthetics in implant restorations.
## Indications

<table>
<thead>
<tr>
<th>Case</th>
<th>Full-Contour Single Crowns</th>
<th>Full-Contour Bridge</th>
<th>Single Crown Frameworks</th>
<th>Bridge Frameworks</th>
<th>Inlay, Onlay</th>
<th>Veneer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block</td>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
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<tr>
<td>High Shine</td>
<td><img src="image7.png" alt="Image" /></td>
<td><img src="image8.png" alt="Image" /></td>
<td><img src="image9.png" alt="Image" /></td>
<td><img src="image10.png" alt="Image" /></td>
<td><img src="image11.png" alt="Image" /></td>
<td><img src="image12.png" alt="Image" /></td>
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<tr>
<td>Shine</td>
<td><img src="image13.png" alt="Image" /></td>
<td><img src="image14.png" alt="Image" /></td>
<td><img src="image15.png" alt="Image" /></td>
<td><img src="image16.png" alt="Image" /></td>
<td><img src="image17.png" alt="Image" /></td>
<td><img src="image18.png" alt="Image" /></td>
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<tr>
<td>Shade</td>
<td><img src="image19.png" alt="Image" /></td>
<td><img src="image20.png" alt="Image" /></td>
<td><img src="image21.png" alt="Image" /></td>
<td><img src="image22.png" alt="Image" /></td>
<td><img src="image23.png" alt="Image" /></td>
<td><img src="image24.png" alt="Image" /></td>
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<tr>
<td>LS Block</td>
<td><img src="image25.png" alt="Image" /></td>
<td><img src="image26.png" alt="Image" /></td>
<td><img src="image27.png" alt="Image" /></td>
<td><img src="image28.png" alt="Image" /></td>
<td><img src="image29.png" alt="Image" /></td>
<td><img src="image30.png" alt="Image" /></td>
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<tr>
<td>LS Pressing</td>
<td><img src="image31.png" alt="Image" /></td>
<td><img src="image32.png" alt="Image" /></td>
<td><img src="image33.png" alt="Image" /></td>
<td><img src="image34.png" alt="Image" /></td>
<td><img src="image35.png" alt="Image" /></td>
<td><img src="image36.png" alt="Image" /></td>
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</tbody>
</table>
Solutions for Transparent Teeth

Transparency is an important criterion when it comes to choosing the CAD/CAM block for anterior prosthesis.
The main advantage of the rainbow™ High Shine is its transparency, making it a favorable material to use to achieve anterior esthetics. It is available in both disk and step type in commonly used shades of A0, A1 and A2.
Semi-Transparent for Anterior

Semi-transparent block for anterior application for superior esthetics.


**rainbow™ Shine Block**

- Clearer and more transparent than the traditional opaque and translucent blocks
- Higher in strength than the lithium disilicate product group
- Product available in shades A0, A1 and A2 for best esthetic result
FULL ZIRCONIA FOR ANTERIOR

rainbow™ Shade Block

Final prosthesis
rainbow™ Shade Block

• Original color of the blocks eliminates the need for additional dipping
• Uniform color tone is preserved even after occlusal articulation
• Entire "Vita A" shades are expressible with simplified constitution of A0.5 and A2 blocks
rainbow™ Shade Block

Glazing - Buccal

Glazing - Lingual

Final prosthesis

rainbow™ LS Pressing

• A lithium disilicate ingot for pressing technique
• Excellent esthetic results and flexural strength (>500MPa, 3-point)
• Applicable to diverse cases including veneers, inlays, onlays and single crowns
• Capable of precise marginal fit
Inlays, Onlays, Veneers and Single Crowns

rainbow™ LS Block

- A lithium disilicate for CAD/CAM technique
- Excellent transparency and 9 shades (A1, A2, A3, A3.5, A4, B1, B2, B3, B4)
- Excellent flexural strength (>370MPa, 3-point)
- Various indications (Veneer, inlay, onlay, single crown and so on)
- Compatible mandrel-type block for milling machine

By Dr. Hyun-Sik Park _ HEIM Dental Clinic
COLORING & BRUSHING MATERIAL
rainbow™ Brushing Liquid is a coloring solution for zirconia prosthesis through the means of a brushing method. Instead of the conventional dipping method, the fine esthetic detailing may be done through a brushing method.
COLORING SOLUTION FOR ZIRCONIA

rainbow™ Coloring Liquid
- Coloring liquid for zirconia prosthesis
- Comprised of the five most commonly used dipping colors
- Deep color penetration to express a natural esthetic
Coloring Solution for Zirconia

Before | After
--- | ---

**rainbow™ Brushing Liquid**

- Fine detailing by implementing the brushing technique
- Solution type and pen type are available to accommodate user’s preference
- Comprised of 12 color options (brown, orange, white, grey, pink, violet) to enhance the esthetics of the prosthesis and a diluting solution to adjust the color intensity
- Brushed area is easily distinguishable through the incorporated food dyes
Veneering & Staining Material
Veneering Porcelain for Zirconia Substructure

rainbow™ Porcelain

• Harmonized coefficient of thermal expansion with zirconia minimizes the possibility of cracking
• Can express a huge diversity of color shade while delivering an excellent esthetic due to the superb opalescent and fluorescent effect
• Natural-looking prosthesis production is possible with such a simple build-up procedure
• The special treatment to the powder creates high viscosity even when mixed with just distilled water, offering high user convenience
Products of rainbow™ Porcelain

**Liner**
 Represents basic shading and enhances the bond strength.
 Includes most fluorescent pigment to increase the fluor effect like natural teeth.

**Opacious Dentin**
 Fills up the insufficient area of Pontic or Core
 Controls transparency if thickness of Dentin is not enough.

**Dentin**
 It is used to make the shape and represent the shade of prosthesis.

**Enamel**
 Porcelain to express the translucent incisal part of teeth.

**Translucent**
 Porcelain to express the more translucency of incisal part.

**Opal Effect**
 Porcelain to express the translucent incisal part of teeth.

**Fluor Effect**
 Porcelain added more fluorescent materials to increase fluor effect.

**Cervical**
 Porcelain to express the deep color of cervical part and sometimes darker shade of Dentin porcelain is used.

**Margin**
 Porcelain to fit precisely with margin adaptation.
 Controls translucency of margin to enhance esthetics.

**Gum**
 Porcelain to express the color of gum.
**rainbow™ Porcelain**

- Zirconia coping
- Liner
- Dentin
- Dentin mamelon formed
- Translucent build-up
- Enamel build-up (Labial)
- Enamel build-up (Lingual)
- 1st Build-up firing
- 2nd Build-up
- Final prosthesis
• The paste-like consistency of the product allows for ease of use and makes uniform application possible
• The sintering temperature requirement was lowered to under 800˚C to allow application on diverse materials including zirconia and lithium disilicate
• Available in 16 most commonly used shades

**rainbow™ Paste Stain**

**ENHANCED UNIFORM APPLICATION AND EASY OF USE**
rainbow™ Paste Stain

Sintering  Glazing  Final prosthesis

Sintering  Glazing  Final prosthesis
CAD/CAM System

rainbow™ CAD/CAM system is a complete dental diagnostic system ranging from lab products to CAD/CAM equipment. Dentium is committed to developing, manufacturing and offering a full series of products related to prosthetics for our customers.
rainbow™ Scanner Prime

- 2.0 MP camera resolution
- Super speed USB 3.0 interface
- Structured light tech (Accuracy <10㎛)
- Wide scan area & deep depth of scan field
- Articulator compatibility
- White light scanning system
- Convenient scan jig accessory

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scan type</td>
<td>White light technology</td>
</tr>
<tr>
<td>Camera resolution</td>
<td>2.0 Mega pixels (Twin Camera)</td>
</tr>
<tr>
<td>Scan time</td>
<td>Single: 29 sec, 4-Bridge: 103 sec</td>
</tr>
<tr>
<td>Accuracy</td>
<td>≤10㎛</td>
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<tr>
<td>Interface</td>
<td>USB 3.0</td>
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<tr>
<td>File format</td>
<td>Open STL</td>
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<tr>
<td>Scan area (W X D X H)</td>
<td>80 X 60 X 60 mm</td>
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<tr>
<td>Dimensions</td>
<td>28 X 40 X 45 cm</td>
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<tr>
<td>Weight</td>
<td>15 kg</td>
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</tbody>
</table>

White light scanning

EXOCAD (CAD software)
rainbow™ Mill can undercut and mill various shapes freely and precisely with the simultaneous 5-axis milling system. rainbow™ Mill offers a reliable performance with high torque and fast movement due to the mounting of high performance servo motors. By adopting the high speed and the 1 μm precision spindle, the low vibration minimizes block chipping. Furthermore, wasting of the materials and time may be minimized, which can be attributed to the self-diagnosis and automatic tool changing system. Among dental milling machines, rainbow™ Mill provides highly precise components and mechanical rigidity. It is now possible to mill various kinds of materials including Zirconia, PMMA, and Wax.
• Diverse design and precise production with simultaneous 5-axis milling system
• Equipped with a spindle, allowing highly precise and fine machining
• Enhanced convenience with user-focused interface
Dentium Ti Blank
Optimized for implant products from Dentium
rainbow™ Mill - Metal

- Optimized for titanium abutment milling
- High speed and steady quality in milling
- Multi NC data loading system
- Stable water cooling control system
- Easy control and user friendly interface

<table>
<thead>
<tr>
<th>Material</th>
<th>Titanium, PMMA, Glass ceramic</th>
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<tbody>
<tr>
<td>Control axis</td>
<td>4 Axis</td>
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<tr>
<td>Spindle</td>
<td>50,000rpm / 0.45kw</td>
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<tr>
<td>Tool position</td>
<td>8</td>
</tr>
<tr>
<td>Ti Blank holder</td>
<td>10</td>
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<tr>
<td>Milling type</td>
<td>Wet processing</td>
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<tr>
<td>Dimensions</td>
<td>510 x 718 x 640 mm</td>
</tr>
</tbody>
</table>

Dentium customized abutment  Competitor customized abutment
rainbow™ Mill for Clinic

- Optimized for glass ceramic milling by stable water-cooling control system
- Simultaneous 5-axis milling system optimized for variety of designs
- High speed and steady quality in milling
- Tool load and broken detection system
- Multi NC data loading system
- Easy control and User-friendly interface
- Simple and elegant design for dental clinic

<table>
<thead>
<tr>
<th>Material</th>
<th>Glass ceramic, Resin ceramic, PMMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control axis</td>
<td>Simultaneous 5-axis</td>
</tr>
<tr>
<td>Milling time</td>
<td>Single crown: 25 Min</td>
</tr>
<tr>
<td>Motion drives</td>
<td>All servo motors</td>
</tr>
<tr>
<td>Tool posts</td>
<td>7 posts (Automatic tool change)</td>
</tr>
<tr>
<td>Milling type</td>
<td>Wet processing</td>
</tr>
<tr>
<td>Dimensions</td>
<td>45 x 71 x 71 cm</td>
</tr>
<tr>
<td>Weight</td>
<td>100 kg</td>
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</table>
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