3M’s Paradigm™ MZ100 Block for CEREC®

3M offers a full line of products to help complete your indirect restorative procedures. Seating indirect restorations is simpler when bonded with 3M™ RelyX™ ARC Adhesive Resin Cement. Strong and easy to work with, this unique paste-paste resin cement offers easy mixing, loading, seating and clean up. Plus, the 3M™ Clicker™ Dispenser delivers resin cement in precise dosages with less waste. For excellent results and esthetics, try the 3M™ Sof-Lex™ Finishing and Polishing System. This easy-to-use, color-coded system simplifies finishing and polishing procedures. 3M™ Single Bond Dental Adhesive is included in the RelyX ARC adhesive resin cement trial kit to help complete the cement system.

3M™ RelyX™ ARC Adhesive Resin Cement

RelyX adhesive resin cement bonds indirect restorations securely, yet the excess comes off quickly and cleanly without scraping or grinding.

Products That Meet Your Indirect Restorative Needs

3M Technical Hotline: 1-800-634-2249
3M Dental Products Web Site: www.3M.com/dental
3M, Paradigm, RelyX, Sof-Lex and Z100 are trademarks of 3M.
CEREC is a registered trademark of Sirona Dental Systems GmbH.
The Paradigm MZ100 block for CEREC material is specially processed to enhance its properties for use in CAD/CAM milling procedures. The result is a composite mill block with superb milling characteristics.

**Exceptional Strength**

The Paradigm MZ100 block for CEREC provides exceptional strength and excellent fracture toughness for outstanding clinical performance and resistance to fracture.

**Excellent Wear**

The Paradigm MZ100 block for CEREC is created from Z100 restorative material, a universal composite material with excellent wear resistance. Due to its thorough cure, the performance of Paradigm MZ100 block for CEREC is expected to be equal to or better than Z100 restorative material. The wear rate of Paradigm MZ100 block for CEREC is similar to that of natural enamel.

Four-year clinical study at the Catholic University of Leuven

• Measuring occlusal contact wear, the wear rate of Z100 restorative material in occlusal contact areas was found to be comparable to the occlusal contact wear for enamel on enamel.\(^1\)

Seven-year clinical evaluation of 3M™ Z100™ Restorative by THE DENTAL ADVISOR\(^2\)

• Rated 82% or more of restorations in posterior teeth as “very good” to “excellent” for resistance to fracture or chipping, marginal integrity, wear resistance, shade match and esthetics.

**Two-body wear study at the University of Minnesota**

• Found Paradigm MZ100 block for CEREC exhibited less wear than porcelain blocks.

**Economical**

Unlike porcelain mill blocks that require five or more block sizes, the Paradigm MZ100 block for CEREC allows you to create all indicated restorations with two sizes – 10 and 14 – to make all indicated restorations. Fewer sizes simplify your purchases and reduce tooling costs.

Plus, tooling lasts much longer when used with the Paradigm MZ100 block for CEREC than with a porcelain block, resulting in fewer tool changes and reduced tooling costs.

**Eye-Catching Esthetics**

Paradigm MZ100 block for CEREC offers excellent life-like esthetics and high polishability for improved patient satisfaction.

The chameleon effect of Z100 restorative addresses the opacities of both dentin and enamel, which minimizes shade-matching guesswork and allows excellent blending with natural tooth color.

Plus, Paradigm MZ100 block for CEREC is available in a variety of shades to better meet individual patient requirements. Its enamel shade is more translucent than the lightest shade of available porcelain blocks, which means greater esthetic potential.

### Stress and Wear Study

**Milling Characteristics**

CEREC is similar to that of natural enamel.

Z100 restorative material is specially processed to enhance its properties for use in CAD/CAM milling procedures. The result is a composite mill block with superb milling characteristics.

**FLEXURAL STRENGTH**

<table>
<thead>
<tr>
<th>Material</th>
<th>Number of Crowns Milled on One Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paradigm MZ100</td>
<td>80</td>
</tr>
<tr>
<td>Porcelain A</td>
<td>40</td>
</tr>
<tr>
<td>Porcelain B</td>
<td>20</td>
</tr>
<tr>
<td>Indirect Composite</td>
<td>10</td>
</tr>
</tbody>
</table>

At a retail cost of $60.00 U.S. for a diamond wheel, the per-unit cost is much lower for the Paradigm MZ100 Block for CEREC than for porcelain mill blocks (A & B).

Information is based on exclusive use of blocks of each type.

\(^1\) Modified from prior work reported by Dr. Joseph Varno, Edina, Minnesota.

\(^2\) Clinical Update. 3M™ Z100™ Restorative, Four-year Quantitative Wear, November 1997.

**Images**

- Photos courtesy of Dr. Joe Varno, Edina, MN.
- Enamel, Porcelain A, Porcelain B, Indirect Composite C

**Block Sizes**

• The Paradigm MZ100 block for CEREC is available in a variety of block sizes, with the Paradigm MZ100 block for CEREC you need only two sizes – 10 and 14 – to make all indicated restorations. Fewer sizes simplify your purchases and reduce inventory.

- Exceptional strength and excellent fracture toughness for outstanding clinical performance and resistance to fracture.

- High flexural strength than that of porcelain blocks available today (A & B) or indirect composite (C).

- Measuring occlusal contact wear, the wear rate of Z100 restorative material in occlusal contact areas was found to be comparable to the occlusal contact wear for enamel on enamel.

- Rated 82% or more of restorations in posterior teeth as “very good” to “excellent” for resistance to fracture or chipping, marginal integrity, wear resistance, shade match and esthetics.

- Found Paradigm MZ100 block for CEREC exhibited less wear than porcelain blocks.

- At a retail cost of $60.00 U.S. for a diamond wheel, the per-unit cost is much lower for the Paradigm MZ100 block for CEREC than for porcelain mill blocks (A & B). Fewer sizes simplify your purchases and reduce tooling costs.

- Available in a variety of shades including an enamel shade for greater patient satisfaction.

**Easy to Use**

The Paradigm MZ100 block for CEREC is easier to use than porcelain mill blocks because it requires fewer steps which saves time. With the Paradigm MZ100 block for CEREC, there’s no need to glaze or fire the block, so there’s no need for a porcelain furnace. And no hydrofluoric acid etch is required.

**Tooth Material**

- Enamel
- Porcelain A
- Porcelain B
- Indirect Composite C

**Test Material**

- Porcelain A and Porcelain B are commercially available mill blocks.
- Indirect Composite C is a commercially available lab composite.

**Number of Crowns Milled on One Tool**

The Paradigm MZ100 block for CEREC offers excellent life-like esthetics and high polishability for improved patient satisfaction.

The chameleon effect of Z100 restorative addresses the opacities of both dentin and enamel, which minimizes shade-matching guesswork and allows excellent blending with natural tooth color.

Plus, Paradigm MZ100 block for CEREC is available in a variety of shades to better meet individual patient requirements. Its enamel shade is more translucent than the lightest shade of available porcelain blocks, which means greater esthetic potential.

The Paradigm MZ100 block for CEREC is indicated for use in milling the following indirect restorations:

- Inlays/Onlays
- Full crown restorations (anterior and posterior)
- Veneer restorations

Information is based on exclusive use of blocks of each type.

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\(^2\) Clinical Update. 3M™ Z100™ Restorative, Four-year Quantitative Wear, November 1997.