Clinical Indications
CubeX2 is indicated for single crowns and 3-unit bridgework in all tooth positions.

Preparation Requirements
CubeX2 requires less tooth preparation than is required for lithium disilicate. Ideally, a 0.8 mm chamfer or rounded shoulder prep is preferred, however, a feather-edge margin is acceptable with 1.0 - 1.5 mm occlusal reduction.

Cementation
Recent research has shown that saliva contamination can hinder the bonding of zirconia-based products. When a zirconia crown or bridge is tried in the patient’s mouth and comes in contact with saliva, the phosphate groups in the saliva bind to the zirconia oxide and cannot be rinsed out with water. Attempting to use phosphoric acid (which is full of phosphate groups) to “clean out” the saliva only makes the problem worse.

To successfully remove saliva, it is now suggested that after try-in and before priming, the crown should be cleaned with Ivoclean, a zirconia oxide solution from Ivoclar Vivadent. This zirconia oxide solution is placed inside the restoration for 20 seconds and then rinsed out. Due to the large concentration of free zirconia oxide in the Ivoclean, it acts as a sponge and binds to the phosphate groups that were previously bonded to the restoration.

Suggested Cementation Protocol:
1. Try-in zirconia-based restoration
2. Rinse saliva out of restoration with water
3. Place Ivoclean in restoration for 20 seconds, rinse and dry
4. Apply primer and then cement with product of your choice

Cementation Recommendations:
- Ceramir® Crown & Bridge (Doxa Dental) or a resin-reinforced glass ionomer cement such as Relinx® Luting Cement (3M ESPE) or GC Fuji Plus® (GC America)
- For short or over-tapered preparations, use a resin cement such as Relinx Unicem (3M ESPE) or Panavia F2.0 (Kuraray)

Finishing and Polishing
DAL recommends the Brasseler USA® Dialite® ZR Kit for finishing and polishing cubeX2 and BioZX2 zirconia products. This two-step system allows you to quickly achieve maximum surface smoothness, enhancing your restoration’s longevity and minimizing wear to opposing dentition.

Important: Be sure to use adequate water when adjusting.
cubeX² Cubic Zirconia

Dental Arts Laboratories, Inc. is excited to announce the arrival of the next evolution in zirconia... cubeX² Cubic Zirconia. The new cubeX² material combines the known positive properties of zirconia with a significant increase in translucency (49% translucency), making it ideal for anterior and posterior applications up to 3-unit bridgework in all tooth positions. Highly biocompatible, cubeX² is the ideal restorative material for today’s dentistry, offering the translucency of a lithium disilicate while retaining the strength of zirconia (720 MPa’s of flexural strength). Dentists no longer have to choose between traditional zirconia and lithium disilicate ...cubeX² offers strength and beauty!

Cubic Zirconia System

Traditional zirconium varieties familiar and established in the dental field can be grouped together as 3Y-TZP ceramics. By adding 3 mol% yttria oxide, the tetragonal crystal phase is stabilized to create the traditional Yttria stabilized Tetragonal Zirconia Polycrystals formation.

The cubeX² system is based on a 5 mol% yttria oxide, which leads to a stabilization of approximately 53% cubic and 47% tetragonal crystal structure. Thanks to the larger cubic form in volume terms compared to the traditional 3Y-TZP zirconia, transparency is vastly improved with the new cubic zirconia 5Y-TZP molecular structure.

Both Beautiful and Safe

Compared to similar high strength ceramics, cubeX² provides an increased esthetic appearance with a biocompatible high performance ceramic featuring high flexural strength and fracture toughness.

Best Resistance to Aging

Most all ceramic dental restorative materials experience a degradation of strength values over time in vivo due to aging/phase transformation. Due to the enhanced stability of the cubic phase in cubeX² (versus the tetragonal phase found in conventional zirconia products), less phase transformation is observed in vivo, allowing cubeX² to retain much more of its initial strength over time.
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CubeX² Cubic Zirconia Material Properties

cubeX² is a highly translucent, esthetic cubic zirconia that develops light transmission previously unobtainable with current zirconium oxides. The cubic/tetragonal microstructure, to which the material owes its characterization as “cubic zirconia,” is basically responsible for its extremely high translucency.

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Flexural Strength of Dental Ceramics

<table>
<thead>
<tr>
<th>Material</th>
<th>Flexural Strength (MPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPS e.max</td>
<td>1,200*</td>
</tr>
<tr>
<td>BruxZir®</td>
<td>1,100*</td>
</tr>
<tr>
<td>BioZ®</td>
<td>720*</td>
</tr>
<tr>
<td>cubeX² Cubic Zirconia</td>
<td>650*</td>
</tr>
<tr>
<td>cubeX² Translucent Zirconia</td>
<td>400*</td>
</tr>
</tbody>
</table>

*The stated values may be based on different testing methods. Values are extracted from data sheets and product descriptions from corresponding manufacturers and distributors. All Dental Arts zirconium oxides were tested by an accredited testing laboratory as follows: cubeX² in 3-point and BioZ® in 4-point bending test according to ISO 6872.
Clinical Indications
cubeX® is indicated for single crowns and 3-unit bridgework in all tooth positions.

Preparation Requirements
cubeX® requires less tooth preparation than is required for lithium disilicate. Ideally, a 8 mm chamfer or rounded shoulder prep is preferred, however a feather-edge margin is acceptable with 1.0 - 1.5 mm occlusal reduction.

Cementation
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Cementation Recommendations:
• Ceramic® Crown & Bridge (Brasseler Dental) or a resin-reinforced glass ionomer cement such as Relench® or GC Fuji Plus®
• For short or over-tapered preparations, use a resin cement such as Rellink® or Panavia™ F2.0

Finishing and Polishing
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Important: Be sure to use adequate water when adjusting.

Ivoclean cleaning paste from Ivoclar Vivadent
Brasseler USA® Dialite® ZR Kit for Zirconia Restorations
Dental Arts Laboratories, Inc.
241 NE Perry Avenue, Peoria, IL 61603-3625
1.800.227.4142
www.dentalartslab.com

All products are proudly fabricated in our laboratories located in the USA.