TORQUE & DRIVER SPECIFICATIONS
on the Most Common Implant Systems

Astra (.050 Hex Drive)
25 Ncm on all implant level components and Zirconsia abutments
15 Ncm on uni-abutments & abutment level components

Biomet 3i (.048 Hex Drive)
20 Ncm on Certain and external hex with hex head screws
35 Ncm on all external hex with square head screws

BioHorizons (.050 Hex Drive)
30 Ncm on all components

BlueSkyBio (.050 Hex Drive)
30 Ncm Internal Hex Molar, Conus 12, Max, Quatro

CamLog & ConLog (.050 Hex Drive)
20 Ncm on all abutments and 3.3mm implants
30 Ncm on all Ball abutments and Bar abutments (3.8, 4, 5, 6mm)

Friadent (.048 Hex Drive)
15 Ncm for temporary abutments
25 Ncm for all implants and abutment level components

Keystone LifeCore Renova, Restore (.048 Hex Drive)
30 Ncm on all implant and multi-unit level components
20 Ncm on all abutment level components
LifeCore Genesis & Prima (Square Drive)

Locators (Locator Driver)
20 Ncm on all locator abutments

MegaGen (1.2mm Hex Drive)
25 Ncm on Narrow platform abutments
35 Ncm on Regular and Wide platform abutments

MIS (.050 Hex Drive)
30-35 Ncm on all Hex and Octa abutments

Nobel Biocare (Branemark) (Unigrip Driver)
15 Ncm on Prosthetic screws, angled multi-units and ball abutments
35 Ncm on all other abutments & abutment screws
35 Ncm on all Procera Zirconia abutments

Straumann (SCS or Unigrip Driver)
35 Ncm on all components

Sybron (1.7mm Hex Driver)
Pro - 35 Ncm on all components
PittEasy - 25 Ncm on all components

Sybron / Innova (.050 Hex Drive)
30 Ncm on all implant level abutments
20 Ncm on all abutment level components

Zimmer (.050 Hex Driver)
28-32 Ncm on all implant level abutments including spline, tapered screw vent & ball abutments
20 Ncm on all abutment level components

Castagnolo
Dental Laboratory, Inc.
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# Cement Selection Guide

**compliments of**

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<tr>
<th>Type of Ceramic</th>
<th>Type of Restoration</th>
<th>Bonded or Cemented</th>
<th>Cementation Protocol</th>
<th>Suggested Cements</th>
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<tr>
<td><strong>Feldspathic</strong></td>
<td>Inlays, Onlays, Crowns, Veneers (excluding 2nd molar crowns)</td>
<td>Bond, then resin cement</td>
<td><strong>Tooth Surface:</strong>&lt;br&gt;1. Etch with phosphoric acid&lt;br&gt;2. Rinse&lt;br&gt;3. Apply bonding agent (4th or 5th generation)&lt;br&gt;&lt;br&gt;<strong>Ceramic Internal Surface:</strong>&lt;br&gt;4. Etch with HF at lab&lt;br&gt;5. Silanate chairside&lt;br&gt;6. Cement with light-cure or dual-cure cement</td>
<td>3M ESPE Relix Veneer Cement with 3M ESPE Adper Single Bond Plus Adhesive (3M ESPE); Calibra with Prime and Bond NT (DENTSPLY Caulk); Multilink Automix (Ivoclar Vivadent); NX3 with OptiBond Solo Plus (Kerr Corp.); Variolink II with ExceITE (Ivoclar Vivadent)</td>
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<td><strong>High Leucite</strong></td>
<td>Inlays, Onlays, Crowns, Veneers (excluding 2nd molar crowns)</td>
<td>Bond, then resin cement</td>
<td><strong>Tooth Surface:</strong>&lt;br&gt;1. Etch with phosphoric acid&lt;br&gt;2. Rinse&lt;br&gt;3. Apply bonding agent (4th or 5th generation)&lt;br&gt;&lt;br&gt;<strong>Ceramic Internal Surface:</strong>&lt;br&gt;4. Etch with HF at lab&lt;br&gt;5. Silanate chairside&lt;br&gt;6. Cement with light-cure or dual-cure cement</td>
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<td><strong>Lithium Disilicate</strong></td>
<td>Anterior and Posterior crowns, 3 unit bridges up to 2nd bicuspids</td>
<td>Bond, then resin cement</td>
<td><strong>Tooth Surface:</strong>&lt;br&gt;1. Etch with phosphoric acid&lt;br&gt;2. Rinse&lt;br&gt;3. Apply bonding agent (4th or 5th generation)&lt;br&gt;&lt;br&gt;<strong>Ceramic Internal Surface:</strong>&lt;br&gt;4. Etch with HF at lab&lt;br&gt;5. Silanate chairside&lt;br&gt;6. Cement with light-cure or dual-cure cement</td>
<td>3M ESPE Relix ARC Adhesive Resin Cement (3M ESPE); 3M ESPE Relix Veneer Cement with 3M ESPE Adper Single Bond Plus Adhesive (3M ESPE); Calibra with Prime and Bond NT (DENTSPLY Caulk); Linuxa (GC America); Multilink Automix (Ivoclar Vivadent); NX3 with OptiBond Solo Plus (Kerr Corp.); Panavia F.2.0 (Kuraray America); Variolink II with ExceITE (Ivoclar Vivadent)</td>
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<td><strong>Alumina</strong></td>
<td>Anterior and Posterior crowns, 3-unit bridges</td>
<td>Cement</td>
<td><strong>Tooth Surface:</strong>&lt;br&gt;1. Etch with phosphoric acid&lt;br&gt;2. Rinse&lt;br&gt;3. Apply bonding agent (4th or 5th generation)&lt;br&gt;&lt;br&gt;<strong>Ceramic Internal Surface:</strong>&lt;br&gt;4. Etch with HF at lab&lt;br&gt;5. Silanate chairside&lt;br&gt;6. Cement with light-cure or dual-cure cement OR 1. Use self-adhesive resin cement</td>
<td>3M ESPE Relix ARC Adhesive Resin Cement (3M ESPE); G-CEM (GC America); Maxcem Elite (Kerr Corp.); SMARTCEM 2 (DENTSPLY Caulk); seI (SDI North America, Inc.)</td>
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<td><strong>Zirconia</strong></td>
<td>Anterior and Posterior crowns, 3-6 Unit Bridges implants Maryland bridges</td>
<td>Cement (Good retention cases)</td>
<td><strong>Tooth Surface:</strong>&lt;br&gt;1. Etch with phosphoric acid&lt;br&gt;2. Rinse&lt;br&gt;3. Apply bonding agent (4th or 5th generation)&lt;br&gt;&lt;br&gt;<strong>Ceramic Internal Surface:</strong>&lt;br&gt;4. Etch with HF at lab&lt;br&gt;5. Silanate chairside&lt;br&gt;6. Cement with light-cure or dual-cure cement OR 1. Use self-adhesive resin cement</td>
<td>3M ESPE Durcelon (3M ESPE); 3M ESPE Relix ARC Adhesive Resin Cement (3M ESPE); 3M ESPE Relix ARC Unicem Self-Adhesive Universal Resin Cement (3M ESPE); Breeze Self-Adhesive Resin Cement (Pentron Clinical Technologies); G-CEM (GC America); GC Fuji Plus (GC America); Maxcem Elite (Kerr Corp.); Multilink Automix (Ivoclar Vivadent)</td>
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<td><strong>In-Ceram ALUMINA</strong></td>
<td>Anterior and Posterior crowns, 3-unit bridges</td>
<td>Cement (Poor retention cases)</td>
<td><strong>Tooth Surface:</strong>&lt;br&gt;1. Apply dual-cure bonding agent&lt;br&gt;&lt;br&gt;<strong>Ceramic Internal Surface:</strong>&lt;br&gt;2. Apply primer&lt;br&gt;3. Cement with dual-cure resin cement</td>
<td>Self-Etch Primers/Adhesive; Ceramic Primer; Multilink A&amp;B Primer (Ivoclar Vivadent); Metal-Zirconia Primer (Ivoclar Vivadent); Multilink Automix (Ivoclar Vivadent)</td>
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