**Composition of Calibra® Universal**

Inorganic filler particles range from 16 nm to 7 µm. Median particle size 1.8 µm. Total filler 48.7% (v/v).

<table>
<thead>
<tr>
<th>Base Paste</th>
<th>Catalyst Paste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urethane Dimethacrylate</td>
<td>Urethane Dimethacrylate</td>
</tr>
<tr>
<td>Di and Tri-methacrylates</td>
<td>Di and Tri-methacrylates</td>
</tr>
<tr>
<td>Initiators</td>
<td>Phosphoric acid modified acrylate</td>
</tr>
<tr>
<td>Stabilizers</td>
<td>Initiators</td>
</tr>
<tr>
<td>Silanated barium glass</td>
<td>Stabilizers</td>
</tr>
<tr>
<td>Fumed silica</td>
<td>Silanated barium glass</td>
</tr>
<tr>
<td>Pigments</td>
<td>Fumed silica</td>
</tr>
</tbody>
</table>
# Physical and Mechanical Properties

<table>
<thead>
<tr>
<th>Properties</th>
<th>Calibra® Universal (Dual Curing)</th>
<th>ISO Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressive strength (MPa)</td>
<td>336</td>
<td>N/A</td>
</tr>
<tr>
<td>Flexural strength (MPa)</td>
<td>120</td>
<td>≥ 50</td>
</tr>
<tr>
<td>Flexural modulus (GPa)</td>
<td>8.6</td>
<td>N/A</td>
</tr>
<tr>
<td>Film thickness (µm)</td>
<td>19.6</td>
<td>≤ 50</td>
</tr>
<tr>
<td>Radiopacity (% Aluminum)</td>
<td>183%</td>
<td>≥ 100%</td>
</tr>
<tr>
<td>Water sorption (µg/mm³)</td>
<td>36</td>
<td>≤ 40</td>
</tr>
<tr>
<td>Water solubility (µg/mm³)</td>
<td>2.2</td>
<td>≤ 7.5</td>
</tr>
<tr>
<td>Expansion after 6 month (%)</td>
<td>0.48</td>
<td>N/A</td>
</tr>
</tbody>
</table>
6 Minute Shear Bond Strength to Dentin

MPa

Calibra® Universal
RelyX™ Unicem 2
Maxcem Elite™

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1 Hour Shear Bond Strength to Dentin

MPa

Calibra® Universal  
RelyX™ Unicem 2  
Maxcem Elite™

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24 Hour Shear Bond Strength to Dentin

Calibra® Universal

RelyX™ Unicem 2

Maxcem Elite™

MPa

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24 Hour Shear Bond Strength to Enamel

Calibra® Universal
RelyX™ Unicem 2
Maxcem Elite™

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24 Hour Shear Bond Strength to Glass Ceramics

MPa

Calibra® Universal

RelyX™ Unicem 2

Maxcem Elite™

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24 Hour Shear Bond Strength to Zirconia Ceramic

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24 Hour Shear Bond Strength to Base Metal

Calibra® Universal

RelyX™ Unicem 2

Maxcem Elite™

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24 Hour Shear Bond Strength to Noble Metal

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Compressive Strength, Dual Cure

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Radiopacity

Calibra\textsuperscript{\textregistered} Universal

RelyX\textsuperscript{TM} Unicem 2

Maxcem Elite\textsuperscript{TM}

mm Al

Maxcem Elite\textsuperscript{TM} and RelyX\textsuperscript{TM} Unicem 2 are not registered trademarks of DENTSPLY International.