

Bonding recommendations for VITA MATERIALS

Product	Material class	Type of bonding		
		adhesive	self-adhesive	conventional
VITABLOCS®	Silicate ceramic	●	● ¹	✗
VITA ENAMIC®	Hybrid ceramic	●	● ¹	✗
VITA SUPRINITY® PC	Zirconia-reinforced Lithium silicate ceramic	●	●	○ ²
VITA YZ® SOLUTIONS ³	Zirconia	●	●	●
VITA AMBRIA®	Zirconia-reinforced Lithium disilicate ceramic	●	●	○ ²

Recommended bonding materials:

● Recommended ○ Possible ✗ Not possible

■ Silicate ceramic

Glass ionomers: not possible

Adhesive materials: VITA ADIVA F-CEM, VITA ADIVA IA-CEM, ultra-opak (VITA Zahnfabrik), Variolink Esthetic (Ivoclar Vivadent), Vitique (DMG), NX3 (KerrHawe), Calibra Ceram (Dentsply Sirona), RelyX Ultimate (3M ESPE), Bifix QM (VOCO), PANAVIA V5 (Kuraray Noritake), DuoCem (Coltène/Whaledent)

Self-adhesive materials: VITA ADIVA S-CEM (VITA Zahnfabrik), RelyX Unicem 2 (3M ESPE)

■ Hybrid ceramic

Glass ionomers: not possible

Adhesive materials: VITA ADIVA F-CEM, VITA ADIVA IA-CEM, ultra-opak (VITA Zahnfabrik), Variolink Esthetic (Ivoclar Vivadent), Vitique (DMG), NX3 (KerrHawe), Calibra Ceram (Dentsply Sirona), RelyX Ultimate (3M ESPE), Bifix QM (VOCO), Panavia V5 (Kuraray), DuoCem (Coltène/Whaledent)

Self-adhesive materials: VITA ADIVA S-CEM (VITA Zahnfabrik), RelyX Unicem 2 (3M ESPE)

■ / ■ Zirconia-reinforced lithium silicate ceramic / Zirconia-reinforced lithium disilicate ceramic

Glass ionomers: Ketac Cem (3M ESPE); Vivaglass CEM (Ivoclar Vivadent), FujiCem (GC Dental)

Adhesive materials: VITA ADIVA F-CEM, VITA ADIVA IA-CEM, ultra-opak (VITA Zahnfabrik), Variolink Esthetic (Ivoclar Vivadent), Vitique (DMG), NX3 (KerrHawe), Calibra Ceram (Dentsply Sirona), RelyX Ultimate (3M ESPE), Bifix QM (VOCO), Panavia V5 (Kuraray), DuoCem (Coltène/Whaledent)

Self-adhesive materials: VITA ADIVA S-CEM (VITA Zahnfabrik), RelyX Unicem 2 (3M ESPE)

■ Zirconia³

Glass ionomers: Ketac CEM (3M ESPE), Vivaglass CEM (Ivoclar Vivadent), GC Fuji I (GC Dental)

Adhesive materials: VITA ADIVA F-CEM, VITA ADIVA IA-CEM, ultra-opak (VITA Zahnfabrik), Multilink Automix (Ivoclar Vivadent), Panavia V5 (Kuraray)

Self-adhesive materials: VITA ADIVA S-CEM (VITA Zahnfabrik), RelyX Unicem 2 (3M ESPE)

Please note:

¹⁾ In the case of silicate ceramics and hybrid ceramics, self-adhesive bonding composites may only be used for crowns.

²⁾ Conventional bonding materials (Ketac CEM, 3M ESPE; Vivaglass CEM, Ivoclar Vivadent; GC Fuji I, GC Dental) may be used exclusively for crowns on natural teeth. The preparation requires retentive surfaces for conventional cementation, and - based on the preparation guidelines - the anatomical shape must be reduced while adhering to the minimum layer thickness indicated.

With conventional bonding, the bond is almost exclusively achieved by static friction between the bonding material and the restoration, and between the bonding material and the preparation. To achieve the required static friction, retentive preparation with a preparation angle of approx. 4 – 6° and the application of VITA ADIVA CERA-ETCH to the respective ceramic surfaces (for 20 seconds) is required.

³⁾ Oxide ceramics cannot be etched using hydrofluoric acid gel and must be sandblasted with Al₂O₃ (50 µm) at a maximum pressure of 2 bar, prior to bonding, to increase the retention. The phosphate monomer contained in the bonding composites or primers will create a chemical bond between the sandblasted oxide ceramic surface and the composite. Adhesive bonding is recommended for short stumps (≤ 4 mm).

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