

Bonding

Cementation with RelyX™ Ultimate Adhesive Resin Cement and Scotchbond™ Universal Adhesive

Lava™ Ultimate Restorations must be bonded with an adhesive resin cement. 3M ESPE recommends RelyX™ Ultimate Adhesive Resin Cement with Scotchbond™ Universal Adhesive, a primer and adhesive in one bottle. RelyX Ultimate cement with Scotchbond Universal adhesive form a highly versatile bonding system that works for many materials and indications.

This guide illustrates the protocol for this bonding system as recommended for Lava Ultimate Restorative.



Prepare tooth for maximum mechanical retention. It is important to maximize bond strength as described on the following pages.

Key Steps:

- Sandblast the restoration
- Etch (selective or total etch) the tooth surface
- Light cure the adhesive on the prep
- Carefully remove excess cement while holding the restoration in place
- Light cure restoration 20 seconds per surface for final curing

Before using RelyX™ Ultimate Adhesive Resin Cement, please refer to the instructions for Use provided with the product package.

1. Pre-Treatment of Lava™ Ultimate Restoration

Note: Complete all try-in, adjustment, finishing and polishing steps before starting the bonding pre-treatment.



Clean restoration in an ultrasonic cleaner or steam cleaner. Gently blow dry with air.



Sandblast with aluminum oxide grain size $\leq 50\mu\text{m}$ (e.g. Cojet™ Sand or Rocotec™ Soft) at two bars (30 psi) until entire bonding surface appears matte. Use suction to prevent dusting. **Do not etch with HF or phosphoric acid.**



Remove sand with alcohol and dry with oil-free, moisture-free air. Do not use other chemical agents.



Apply Scotchbond™ Universal Adhesive to the bonding surface of the restoration and **scrub it in for 20 seconds.**



Air thin with oil-free, moisture-free air until the solvent is evaporated and the adhesive no longer moves over the surface.



Priming for adhesive resin cements other than RelyX™ Ultimate Adhesive Resin Cement:

Apply the primer, recommended by your cement. If no primer is recommended, apply Silane (e.g. RelyX™ Ceramic Primer) to the bonding surface of the restoration as per silane manufacturer's instructions.

Bonding

2. Pre-Treatment of Tooth

Note: Prepare tooth according to the Instructions for Use for maximum retention (refer to page 3 of this guide). Ensure complete hemostasis and optimum gingival retraction for a dry bonding environment. Do not use any chemical agents to disinfect, clean or seal the dentin.



To remove debris, thoroughly clean all bonding surfaces with a slurry of pumice and water, rinse and dry.



Apply rubber dam to isolate the tooth.



Selectively etch enamel for 15 seconds.



Etch enamel and dentin for 15 seconds.



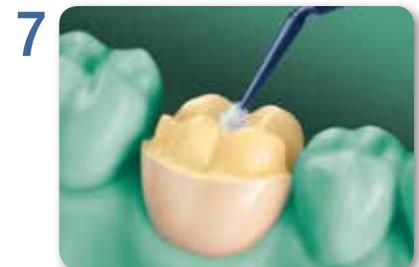
Rinse with water.



Lightly air dry or blot dry leaving a slightly moist surface. Do not over dry.



Apply Scotchbond™ Universal Adhesive and **scrub it in for 20 seconds.**



If you have pooled adhesive, use a dry microbrush to remove it.



Blow a gentle stream of air over the liquid for about 5 seconds until it no longer moves and the solvent has evaporated completely.



For maximum adhesion light cure the adhesive for 10 seconds.

3. Seating

Note: Use a **high power light**. Make sure the light guide is **clean** and light is delivering **full intensity**. Proper curing technique is crucial for bonding success: for each curing cycle hold light guide steady at **minimum distance** to the restoration surface.



1 Mount mixing tip to RelyX™ Ultimate Automix Syringe and discard the initial amount.



2 Apply a uniform layer of RelyX™ Ultimate Adhesive Resin Cement to the tooth or the restoration to ensure a void-free interface.

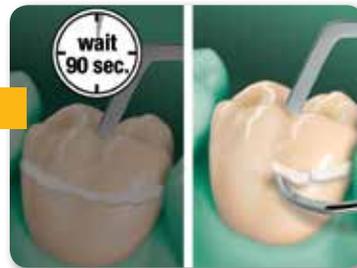


3 Completely seat the restoration using a suitable instrument.



4 While holding the restoration firmly in place, wipe off excess using sponge pellets and floss. Cover margins with glycerin gel.

or



Wait 90 seconds or tack light cure for 1 second for cement to reach gel state. While holding restoration firmly in place remove excess cement with a sharp instrument.



5 Light cure 20 seconds per surface. Total cure time should be at least 60 seconds depending on number of surfaces.



6 For dark shades or thick restorations, allow 6 minutes of total self-cure time from the start of mixing.



7 Finish margins after cure is fully established.



8 Final restoration. If desired polish intraorally as described in intraoral polishing section.

Before using RelyX™ Ultimate Adhesive Resin Cement, please refer to the Instructions for Use provided with the product package.