

Clinical Preparation and Handling Guidelines for
Dentists and Dental Labs

Lava™ Ultimate

CAD/CAM Restorative



Beautiful Results
Easy Handling



3M ESPE



Beautiful results
Easy handling

Lava™ Ultimate CAD/CAM Restorative

Lava Ultimate CAD/CAM Restorative is a “new to the world” CAD/CAM material utilizing 3M’s revolutionary nanoceramic technology. This new material, called a Resin Nano Ceramic is unique in durability and function.

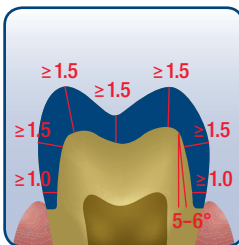
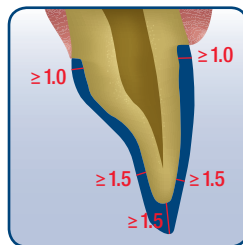
This guide outlines the recommendations for the clinical use and handling for Lava Ultimate CAD/CAM Restorative.



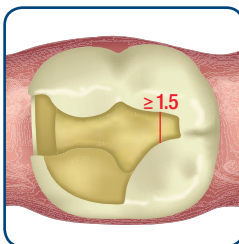
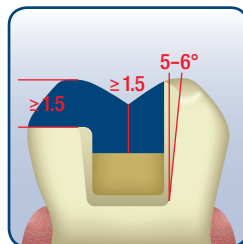
Preparation

Lava™ Ultimate restorations follow the same guidelines as all-ceramic restorations. Do not undercut. All internal edges and line angles should be rounded. Non-beveled shoulder finish lines are recommended.

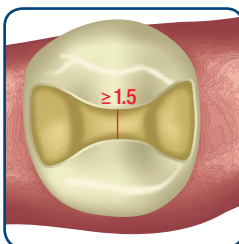
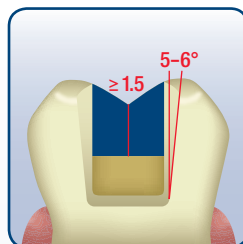
Full Crown



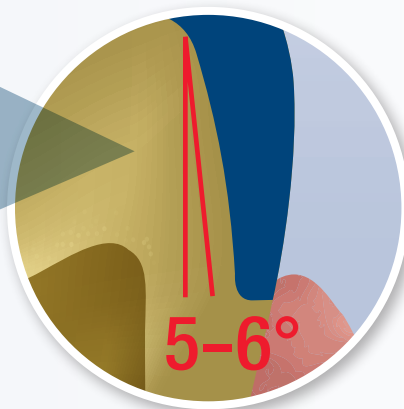
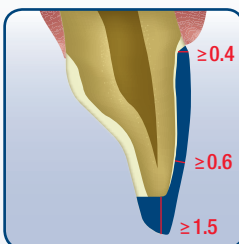
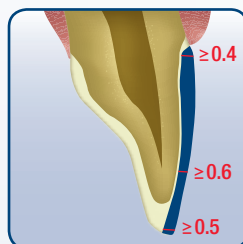
Onlay



Inlay



Veneer



Ensure 5–6° taper, rounded edges and a shoulder margin.

Tooth Preparation

DO

- For crowns, **prep tooth with 5–6° taper, rounded edges and a shoulder margin**
- **Mechanically clean** any contamination (e.g. debris, scan spray, temp cement) from the tooth prep with a brush and pumice slurry or a burr
- **Rinse with water and slightly air dry** (surface should appear glossy)



DON'T

- Do not use any chemical agents after preparation, (e.g. H₂O₂, EDTA, bicarbonates, astringents, desensitizers, solvents, CHX [Chlorhexidine])
- Do not use laser etching
- Do not use eugenol cement for cementation of temporary restoration

Polishing

Extraoral Polishing

Materials and Instruments for Extraoral Finishing and Polishing

Polishing Agent Options:

- VH Technologies Diashine Fine Soft Extraoral Polishing Paste
- Premier Diamond Twist SCL
- Shofu Direct Dia Paste
- Renfert Opal Ref 520-0000



Instruments:

- Coarse Rubber Wheel
- Medium Rubber Wheel
- Soft Bristle Brush
- Muslin Rag Wheel



Extraoral Polishing Procedure

1 Trial Fit Clean polished restoration in an ultrasonic cleaner or steam cleaner; gently blow dry with an air syringe. Trial fit the final restoration to the preparation. If desired, gently adjust contacts, occlusion and accentuate grooves using a fine needle diamond.



Grind off sprue with coarse rubber wheel.



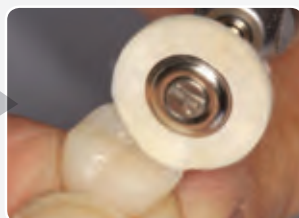
Finish sprue area with medium rubber wheel.



Using a #9 soft Robinson bristle brush, spin brush in polishing agent to incorporate paste into brush.



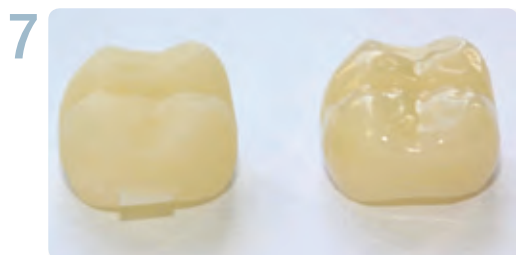
Apply with low speed hand piece working slowly into surface.



The luster quickly appears as the restoration is polished.



Buff with a muslin rag wheel.



Comparison of a polished restoration to an unpolished restoration.

Intraoral Polishing

Materials and Instruments for Intraoral Polishing

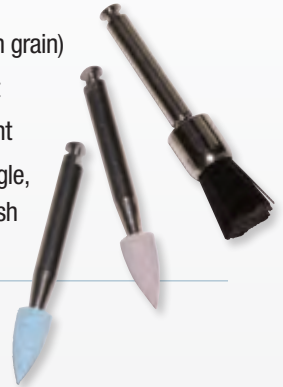
Polishing Agent Options:

- VH Technologies
Diashine Intraoral
Polishing Paste
- Shofu Direct Dia Paste
- Premier Diamond Twist, SCO



Instruments:

- Diamond Bur (30 µm grain)
- Coarse Rubber Point
- Medium Rubber Point
- Soft Black, Latch Angle,
Intraoral Prophy Brush



Intraoral Polishing Procedure

1



Before polishing, make any necessary adjustments with a diamond bur.

2



Finish with diamond impregnated points/cups.

3



Apply intraoral polishing paste directly to unpolished restoration.

4



Work paste slowly into surface using soft black, latch angle prophy brush.

Polishing

Characterization

Characterization — Pit and Fissure Staining

To fully maintain the excellent polish retention and stain resistance of Lava Ultimate Resin Nano Ceramic material only pit and fissure staining is recommended. Applying light-cure glazes or cervical painting is not recommended.



Roughen area where you want to add stain. If needed, use a thin bur to carve space for stain. Minimum wall thickness as per IFU has to be maintained after carving.



Apply Scotchbond™ Universal Adhesive.



Light cure.



Apply Sinfony™ Magic Stains (or other methacrylate-based, light-cured stains).



Light cure. If required by the stain used, cover with thin layer of Filtek™ Supreme Ultra Flowable Restorative and light cure.



Polish with a bristle brush and polishing paste as described in the polishing section.



Final restoration.

Sinfony™ Magic Shades*



*Not available in all countries.



Pre-Treatment of Restoration

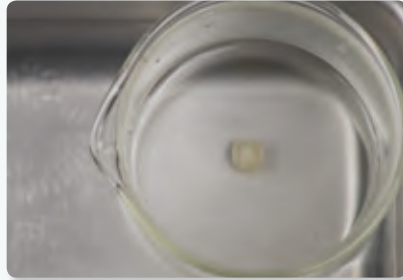
As with any restoration, the material must be cleaned, roughened and primed before cementation.

1 Clean



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

DO

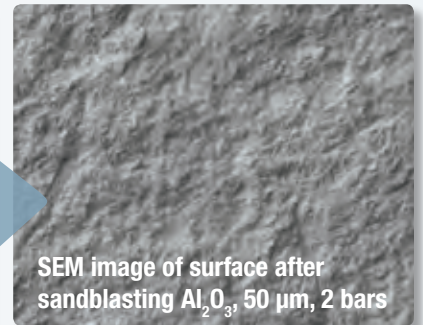


2 Roughen



Sandblast with aluminum oxide grain size $\leq 50 \mu\text{m}$ at two bars (30 psi). Clean with alcohol and dry with air.

DO



SEM image of surface after sandblasting Al_2O_3 , 50 μm , 2 bars



HF etching does not roughen the surface of a resin nano ceramic.

DON'T



3 Prime*



Apply the primer recommended by your cement. If no primer is recommended, apply Scotchbond™ Universal Adhesive or silane to the bonding surface of the restoration.

DO



Pre-Treatment of Restoration Surface

* Follow the instructions for resin-based materials provided by the cement selected.

Cementing with RelyX™ Ultimate Adhesive Cement and Scotchbond™ Universal Adhesive

- 

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

Sandblast with aluminum oxide $\leq 50 \mu\text{m}$ at two bars (30 psi).
- 

Clean with alcohol and dry with air.
- 

Apply Scotchbond™ Universal Adhesive to the bonding surface of the restoration.
- 

Dry with air.

Cementation

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.** The flexibility of this system enables the dentist to etch the tooth preparation using a self-etch, selective-etch or a total-etch all with one system.

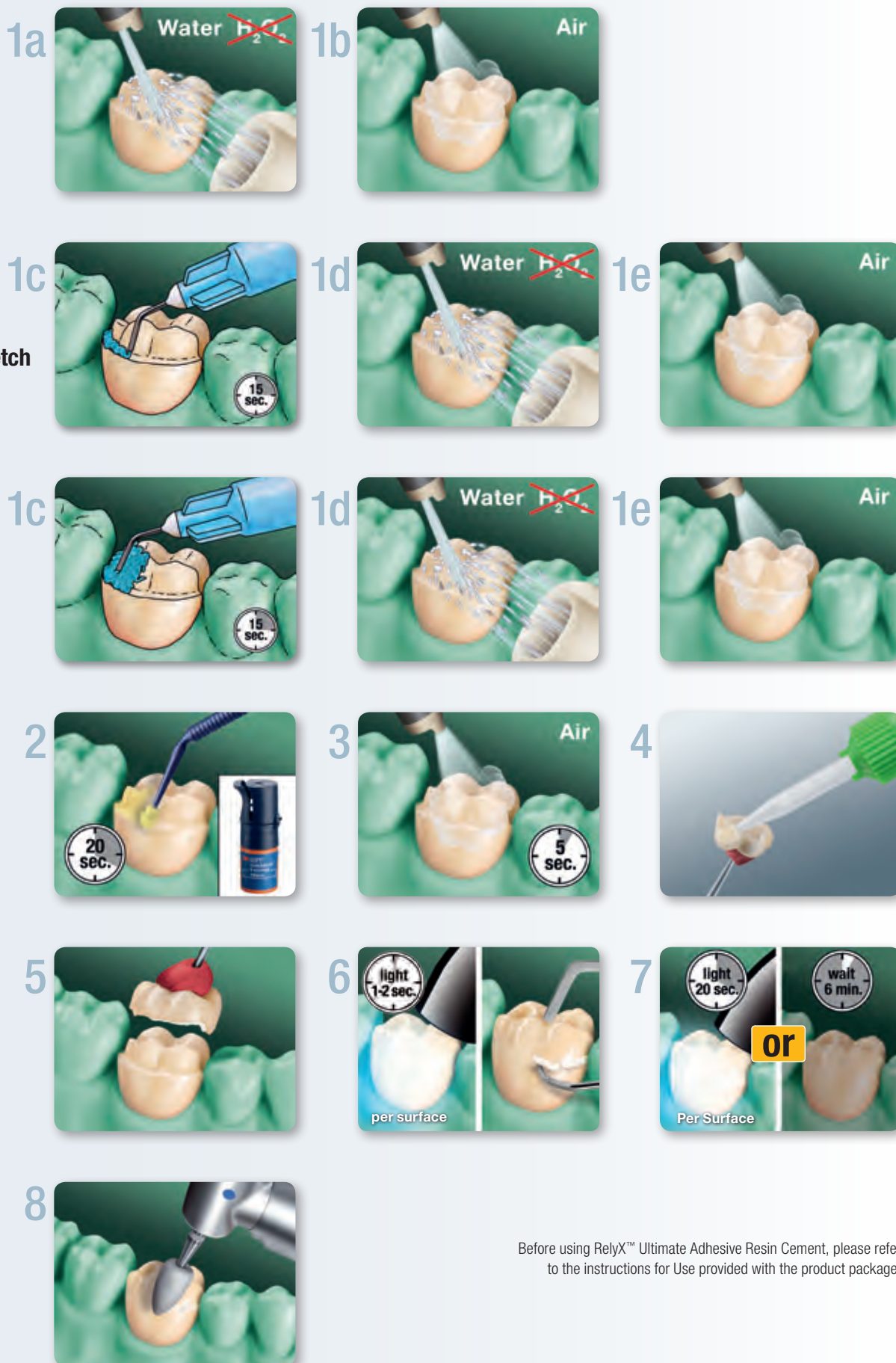


Cementation

or

Optional selective-etch

Optional total-etch



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

Serviceability

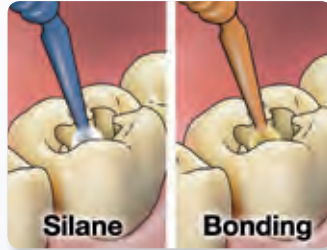
Serviceability

It's easy to add on with Light-Cured Restoratives.

Lava™ Ultimate Restorative is a Resin Nano Ceramic that enables reliable characterization and re-sealing.



Roughen the Lava™ Ultimate restoration site.



Use Scotchbond™ Universal Adhesive or apply silane and bonding according to the Instructions for Use.



Light cure bonding agent according to the Instructions for Use.



Apply Filtek™ Supreme Ultra Universal Restorative (or other methacrylate-based, light-cured restorative).



Light cure restorative material according to the Instructions for Use.



For final polish, apply polishing compound with an intraoral prophylaxis brush.



Shade Selection

Lava™ Ultimate CAD/CAM Restorative is available in eight shades and two translucencies.

Low Translucency (LT)



High Translucency (HT)



Ordering Information

Sinfony™ Magic Shade Refills, 5g each

Item No.	Product Information
49410	Sinfony™ Magic Shade Refill, Shade I1 Ocean Blue
49420	Sinfony™ Magic Shade Refill, Shade I2 Atlantis
49430	Sinfony™ Magic Shade Refill, Shade I3 Chestnut
49440	Sinfony™ Magic Shade Refill, Shade I4 Havanna
49450	Sinfony™ Magic Shade Refill, Shade I5 Orange
49460	Sinfony™ Magic Shade Refill, Shade I6 Khaki
49470	Sinfony™ Magic Shade Refill, Shade I7 Vanilla
49480	Sinfony™ Magic Shade Refill, Shade I8 Honey Yellow
49490	Sinfony™ Magic Shade Refill, Shade I9 Gingiva
49491	Sinfony™ Magic Shade Refill, Shade I10 Red
49492	Sinfony™ Magic Shade Refill, Shade I11 Terracotta

Scotchbond™ Universal Adhesive

Item No.	Product Information
41254	Scotchbond™ Universal Adhesive Intro Kit 1 – 5ml adhesive vial; 50 disposable mixing wells; 50 disposable microbrushes; 1 – 3ml etchant syringe
41258	Scotchbond™ Universal Adhesive Refill — 5ml adhesive vial
41255	Scotchbond™ Universal Adhesive Intro Kit — Unit Dose 40 – 40 unit dose and 1 – 3ml etchant syringe
41256	Scotchbond™ Universal Adhesive Unit Dose 100 – 100 unit dose and 1 – 3ml etchant syringe

RelyX™ Ultimate Adhesive Resin Cement

Item No.	Product Information
56891	RelyX™ Ultimate Introductory Kit (includes 4 color shades) 1 – 5ml bottle Scotchbond™ Universal Adhesive; 1 – 3ml etchant syringe; 25 – dispensing tips for etchant syringe; 50 – mixing wells; 50 – microbrushes; 1 – 8.5g syringe each of cement in shades A30, B0.5, A1 and Translucent; 30 – mixing tips (regular); 10 – mixing tips (wide) + 10 endo tips; 10 – mixing tips (wide) + 10 intra-oral tips; Technique Guide; Instructions for Use
56892	RelyX™ Ultimate Introductory Kit (Translucent) 1 – 1.5ml bottle Scotchbond™ Universal Adhesive; 1 – 3ml etchant syringe; 25 – dispensing tips for etchant syringe; 50 – microbrushes; 1 – 8.5g syringe cement Translucent; 10 – mixing tips (regular); 5 – mixing tips (wide) + 5 intra-oral tips; Technique Guide; Instructions for Use
56894	RelyX™ Ultimate Trial Kit (A1) 1 – 1.5ml bottle Scotchbond™ Universal Adhesive; 1 – 3ml etchant syringe; 25 – dispensing tips for etchant syringe; 50 – microbrushes; 1 – 8.5g syringe cement (A1); 10 – mixing tips (regular); 5 – mixing tips (wide) + 5 intra-oral tips; Technique Guide; Instructions for Use

RelyX™ Ultimate Adhesive Resin Cement Refills

Item No.	Product Information
56887	Shade A1
56888	Shade A30 Opaque
56889	Shade B0.5 Bleach
56890	Shade Translucent
	Refills include 1 – 8.5g syringe cement; 10 – mixing tips (regular); 5 – mixing tips (wide) + 5 intra-oral tips

Availability

Lava™ Ultimate CAD/CAM Restorative is available for CEREC® and E4D® systems. Each refill box contains five blocks of a single shade in size 12 or 14L.

Lava™ Ultimate CAD/CAM Restorative for CEREC®—REFILLS

SHADE	LOW TRANSLUCENCY		HIGH TRANSLUCENCY	
	SIZE 12	SIZE 14L	SIZE 12	SIZE 14L
	Item #	Item #	Item #	Item #
A1	2912A1-LT	2914A1-LT	2912A1-HT	2914A1-HT
A2	2912A2-LT	2914A2-LT	2912A2-HT	2914A2-HT
A3	2912A3-LT	2914A3-LT	2912A3-HT	2914A3-HT
A3.5	2912A3.5-LT	2914A3.5-LT		
B1	2912B1-LT	2914B1-LT	2912B1-HT	2914B1-HT
C2	2912C2-LT	2914C2-LT		
D2	2912D2-LT	2914D2-LT		
Bleach	2912BL-LT	2914BL-LT		



Lava™ Ultimate CAD/CAM Restorative for E4D®—REFILLS

SHADE	LOW TRANSLUCENCY		HIGH TRANSLUCENCY	
	SIZE 12	SIZE 14L	SIZE 12	SIZE 14L
	Item #	Item #	Item #	Item #
A1	3112A1-LT	3114A1-LT	3112A1-HT	3114A1-HT
A2	3112A2-LT	3114A2-LT	3112A2-HT	3114A2-HT
A3	3112A3-LT	3114A3-LT	3112A3-HT	3114A3-HT
A3.5	3112A3.5-LT	3114A3.5-LT		
B1	3112B1-LT	3114B1-LT	3112B1-HT	3114B1-HT
C2	3112C2-LT	3114C2-LT		
D2	3112D2-LT	3114D2-LT		
Bleach	3112BL-LT	3114BL-LT		



Finished restorations are available from Lava™ Milling Centers, Jensen Milling Centers and Straumann® CARES®.



3M ESPE Customer Care Center: 1-800-634-2249

Visit www.3MESPE.com/LavaUltimate for more information

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