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

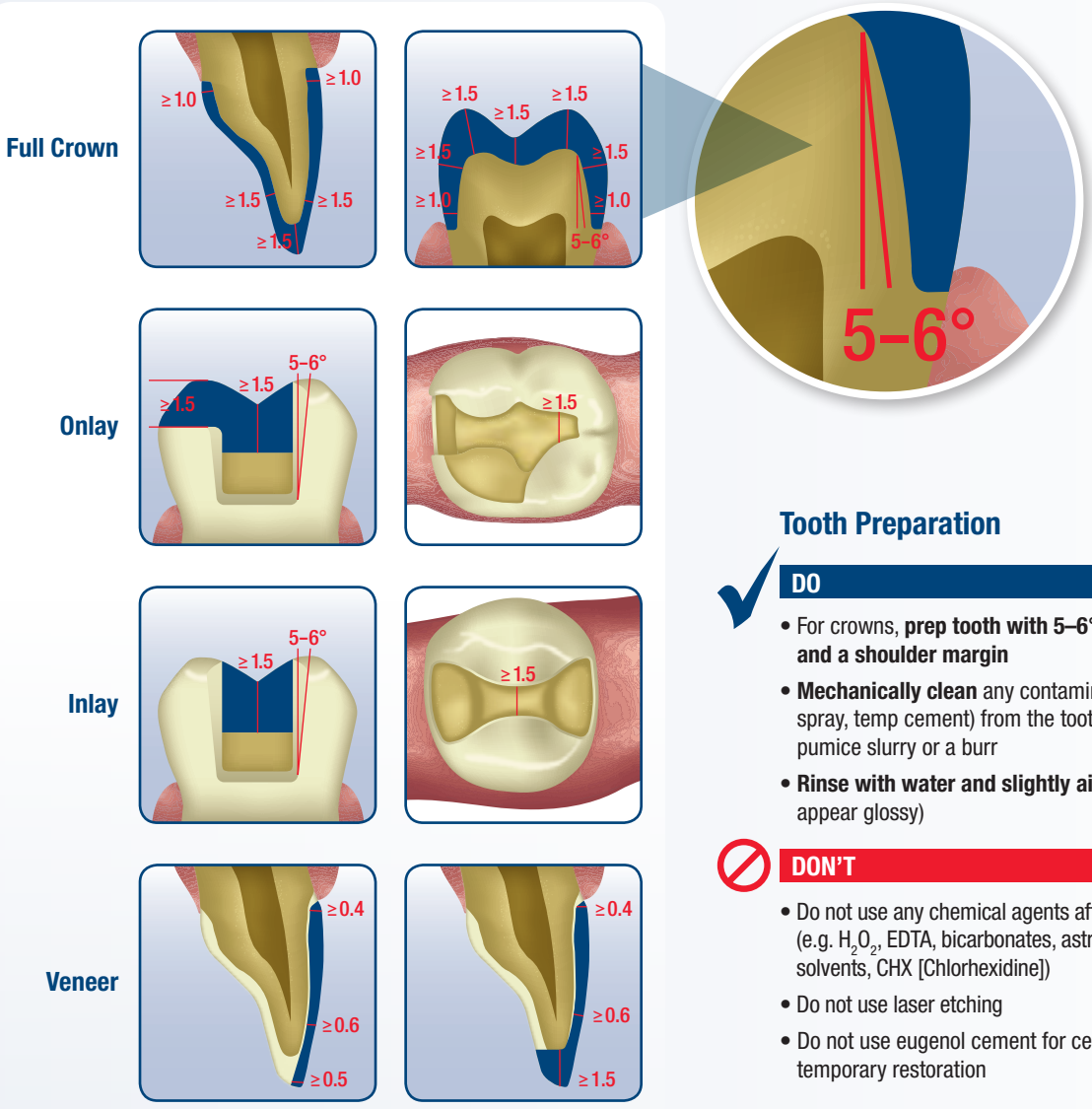
Lava™ Ultimate CAD/CAM Restorative

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.



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. H_2O_2, EDTA, bicarbonates, astringents, desensitizers, solvents, CHX [Chlorhexidine])
- Do not use laser etching
- Do not use eugenol cement for cementation of temporary restoration

Extraoral Polishing

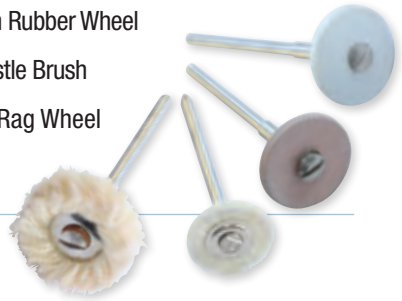
Materials and Instruments for Extraoral Finishing and Polishing

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:

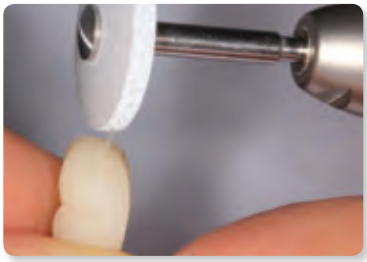
- Coarse Rubber Wheel
- Medium Rubber Wheel
- Soft Bristle Brush
- Muslin Rag Wheel



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.

2



Grind off sprue with coarse rubber wheel.

3

Finish sprue area with medium rubber wheel.

4

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

5

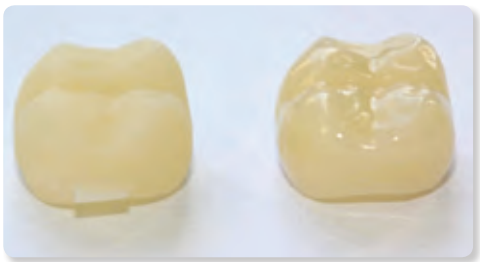
Apply with low speed hand piece working slowly into surface.

The luster quickly appears as the restoration is polished.

6

Buff with a muslin rag wheel.

7



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 — 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.

1

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.

2

Apply Scotchbond™ Universal Adhesive.

3

Light cure.

4

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

5

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

6

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

7

Final restoration.

Sinfony™ Magic Shades*

- Ocean Blue I1
- Atlantis I2
- Chestnut I3
- Havana I4
- Orange I5
- Khaki I6
- Vanilla I7
- Honey Yellow I8
- Gingiva I9
- Red I10
- Terracotta I11
- Neutral T1

*Not available in all countries.

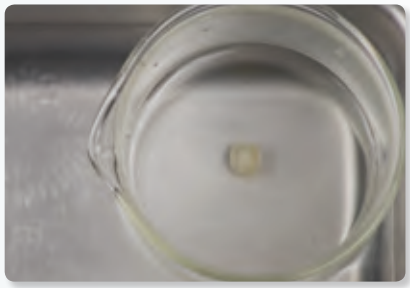
Pre-Treatment of Restoration

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.

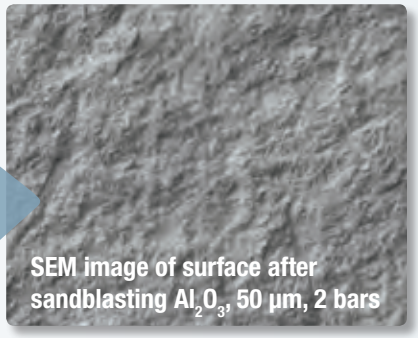
DO



2 Roughen

Sandblast with aluminum oxide grain size ≤ 50 µm 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.

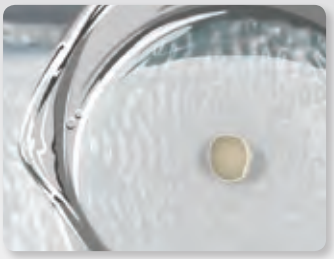
DO

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

Pre-Treatment of Restoration Surface

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

1



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

2

Sandblast with aluminum oxide ≤ 50 µm at two bars (30 psi).

3

Clean with alcohol and dry with air.

4

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

5

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.

1. Sandblast with aluminum oxide ≤ 50 µm at two bars (30 psi).
2. Scotchbond™ Universal Primer and Adhesive in one bottle
3. RelyX™ Ultimate Adhesive Resin Cement

Cementation

1a

1b

1c

1d

1e

Optional selective-etch

or

Optional total-etch

1c

1d

1e

2

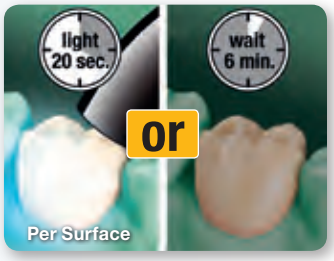
3

4

5

6

7



8

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

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.

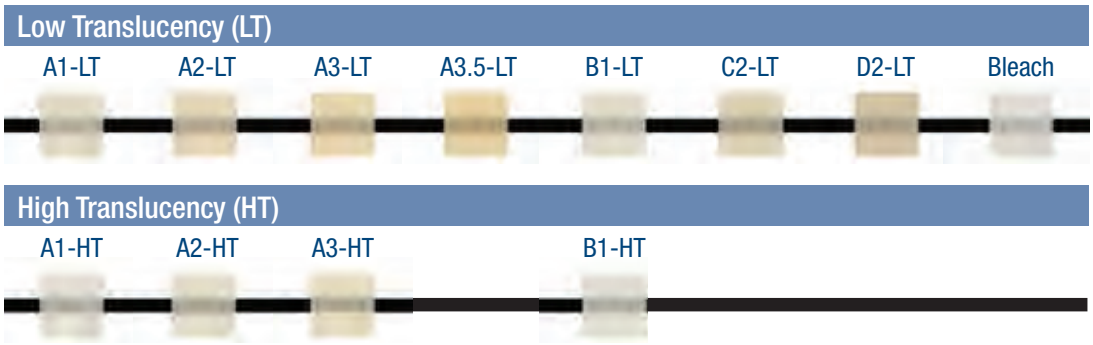
Apply Filtek™ Supreme Ultra Universal Restorative (or other methacrylate-based, light-cured restorative).

Light cure restorative material according to the Instructions for Use.

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

Shade Selection

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



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

	LOW TRANSLUCENCY		HIGH TRANSLUCENCY	
SHADE	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

	LOW TRANSLUCENCY		HIGH TRANSLUCENCY	
SHADE	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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