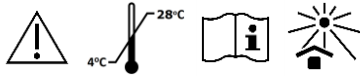


# dline Light Curing Zirconium Reinforced Composite

**dline Light Curing Zirconium Reinforced Composite for direct restorations of class I, II, III, IV and V cavities; indirect restorations such as inlays, onlays, and laminate veneers; extended fissure sealing on molars and premolars; cores**



## INSTRUCTION FOR USE

EN

### DESCRIPTION

dline Light Curing Zirconium Reinforced Composite is a light curing, radiopaque nano hybrid composite in Vita\* shades based on UDMA, EOBPADMA, BisGMA, TEGDMA resins and Zirconium-containing Silica and Barium glass filler with as follows average particle size distribution: main glass cluster size 0.7-1.5µm, nano glass cluster size 180nm. The inorganic filler loading is about 77% by weight. dline Light Curing Zirconium Reinforced Composite is a high aesthetic material with excellent polishability, colour stability, high strength and abrasion resistance.

### INSTRUCTION FOR USE

**NOTE!** Do not use if primary package is broken. It is recommended to use cofferdam during application of the product.

#### Preparation:

1. Prepare cavity as always. Cleaning teeth with oil-free prophylaxis paste, such as dline Prophy Paste is recommended.
2. Use the minimally invasively technique for preparation of the cavity. All enamel margins in the anterior region must be bevelled. Do not bevel the margins in the posterior region and avoid slice preparations. Rinse with water and dry with air.
3. For deep cavities use calcium hydroxide liners or glass ionomer base cement, such as dline Glass Ionomer Base Lining Cement.
4. When filling cavities with approximal sections place a transparent matrix and fix it in place.
5. Apply layer of etch, such as dline Phosphoric Acid Etching Gel on all surface to be etched. Leave etch in place for 15 seconds (dentine), 30 seconds (enamel). Rinse with water and dry with air. Avoid over drying dentin. After drying, the surface must be chalky and do not contaminated prior to applying the adhesive. If the surface becomes contaminated with saliva, rinse and dry again and re-etch if necessary.
6. Apply a thin layer of adhesive, such as dline Light Curing Adhesive immediately onto etched surface and follow direction for use for adhesive.
7. The working area must be kept dry.

#### Restoration:

1. Apply the layer of composite with suitable instrument into cavity. Do not apply layers more than 2mm deep.
2. Light cure for 20 seconds per layer. Use any polymerization lamp in full mode (not ramp or pulse mode).
3. Due to the effect of the oxygen in the air, a thin smear layer of unpolymerized material remains on the surface of each layer. This bonds the layers chemically and must not be touched or contaminated with moisture.
4. Finish restoration.

#### Indirect method:

1. Use the minimally invasively technique for preparation of the cavity. To prevent the material fracturing, it must be at least 1.5mm thick in the lateral and vertical aspects. All internal line and point angles must be rounded. Avoid slice preparations. Prepare a flat cervical shoulder - do not bevel it. Any unavoidable undercuts must be blocked out with glass ionomer cement as dline Glass Ionomer Base Lining Cement. Use slightly tapering diamonds with rounded tips for the preparation. For deep cavities use calcium hydroxide liners.
2. Take the impression and fabricate temporary restoration, using acrylic resin such as dline Acrylic Resin Cold Curing. For cementation of temporary restoration use only non-eugenol cements, such as dline Glass Ionomer Luting Cement.
3. Cast the impression with dental stone, such as dline Dental Plaster Type II, III, IV in the laboratory. Allow the model to set and pull off the impression. Block out the undercuts and apply an oil-free separating agent to the model. Build up the inlay layers on the model. Build up the approximal and deep occlusal sections first. Do not apply layers more than 2mm deep. Light cure for 20 seconds per layer. The finished inlay is then released from the die and cured fully for 8 minutes in curing oven. Trim the occlusal surface with fissure burs and polish to a high lustre with silicone polishers and diamond paste. Clean the inlay with liquid soap and water, rinse and dry with air.
4. Remove the temporary restoration and clean the cavity. Exert gentle pressure on the inlay to check for precision of fit. Do not use force. If necessary, trim the fitting surfaces to improve the fit.
5. The occlusion and articulation must not be checked when trying the inlay in as this would risk fracturing it.
6. Apply layer of etch, such as dline Phosphoric Acid Etching Gel on all surface to be etched. Leave etch in place for 15 seconds (dentine), 30 seconds (enamel). Rinse with water and dry with air. Avoid over drying dentin. After drying, the surface must be chalky and must not be contaminated prior to applying the adhesive.
7. Apply a thin layer of adhesive, such as dline Light Curing Adhesive immediately onto etched surface and follow direction for use for adhesive.
8. For cementation use any available dual curing luting composite. Apply the mixed material with suitable instrument on working area.
9. Carefully press the inlay into position and remove excess of the material. To make certain that the inlay does not slip out of its proper

position, press on it gently with a ball-end plunger until it has been light cured fully. Light curing for 20 seconds from each side. Remove the excess material with fine-grid diamonds and diamond finishing strips. Check the occlusion and adjust if necessary. Finish and polish.

#### NOTE!

- a) After the desired amount of material extruded, screw syringe plunger anticlockwise by a half to full turn to release residual pressure inside the syringe and immediately close the syringe cap, so that the material is not unlighted.
- b) The material is sensitive to light. Avoid too long manipulation time under intensive lighting.

#### WARNINGS AND PRECAUTIONS!

**NOTE!** The composite contains methacrylates. Uncured methacrylates may cause allergic reactions. Do not use dline Light Curing Zirconium Reinforced Composite if patient is allergic to product or to any of the ingredients.

#### Hazard and precautionary statements:

Product causes skin, serious eye irritation, may cause respiratory irritation, and may cause an allergic skin reaction. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

#### Prevention:

Avoid breathing vapours. Wash hands thoroughly after handling. Use only in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

#### Interaction with other substances:

dline Light Curing Zirconium Reinforced Composite should not be used with products containing eugenol.

#### STORAGE

Keep container tightly closed in dry well-ventilated place at 4-28°C. Protect from direct sunlight and heat sources. Do not freeze the product. The batch number should be quoted in all correspondence. See packaging for batch and expiry date. Do not use after the expiry date. Dispose of contents/container to as required by national regulatory requirements. Keep out of the reach of children!

#### MANUFACTURERS RESPONSIBILITY

Our products have been developed for professional use in dentistry. As the application of our products is beyond our control, the user is fully responsible for the application. Of course, we guarantee the quality of our products in accordance with the applied standards.

#### PACKAGING

<b>REF 10700</b>	4g syringe dentin shade A1
<b>REF 10720</b>	4g syringe dentin shade A2
<b>REF 10730</b>	4g syringe dentin shade A3
<b>REF 10735</b>	4g syringe dentin shade A3.5
<b>REF 10750</b>	4g syringe dentin shade B2
<b>REF 10770</b>	4g syringe dentin shade C2
<b>REF 10820</b>	4g syringe dentin shade OA2
<b>REF 10830</b>	4g syringe dentin shade OA3
<b>REF 10860</b>	4g syringe enamel shade Universal
<b>REF 10920</b>	4x4g syringes, 5ml dline Light Curing Adhesive, 4,3g dline Phosphoric Acid Etching Gel, accessories
<b>REF 10921</b>	8x4g syringes, 5ml dline Light Curing Adhesive, 4,3g dline Phosphoric Acid Etching Gel, accessories
<b>REF 10930</b>	4x4g syringes, 5ml dline Light Curing Self Etching Universal Adhesive, 4,3g dline Phosphoric Acid Etching Gel, accessories
<b>REF 10931</b>	8x4g syringes, 5ml dline Light Curing Self Etching Universal Adhesive, 4,3g dline Phosphoric Acid Etching Gel, accessories

\* Registered trademark of the Vita Zahnfabrik H.Rauter GmbH & Co. KG, Bad Sackingen, Germany.

Made in EU for Dline OU  
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