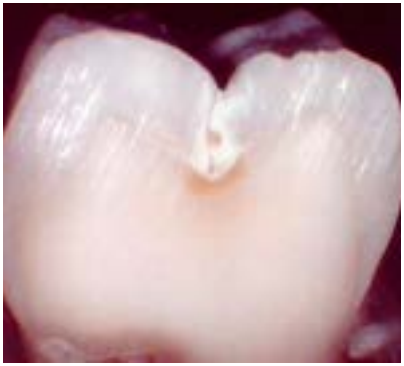
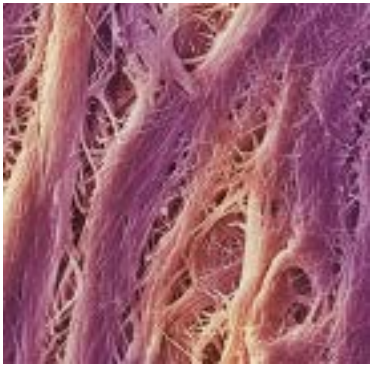
everX Posterior

The **STRONGEST** composite sub-structure

everX Posterior – a revolutionary fibre-reinforced

Nature's way of adding STRENGTH





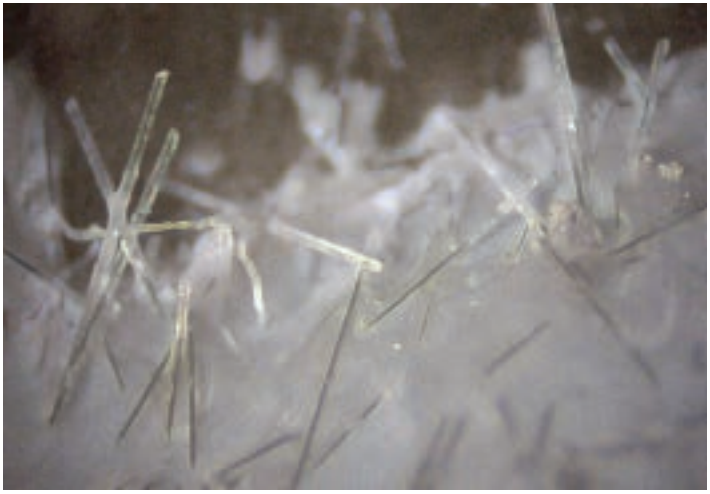
Fibres in dentine give the tooth much higher fracture toughness.

Enamel is predominately crystalline and densely packed and gives high strength and excess periods after surface hardness...

This is why cracks in our teeth don't usually progress all the way.

Modern composites and indirect materials offer perfect features for enamel replacement: high wear resistance and aesthetics.

However, they are not able to equal dentine when it comes to resistance to fracture.



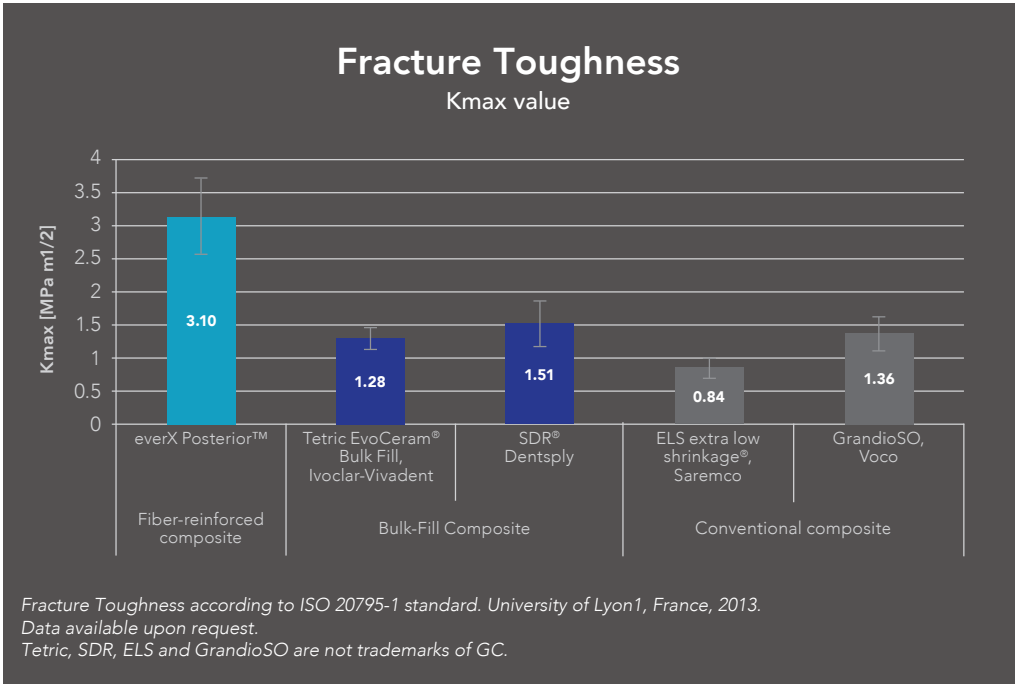
Reinforce your restorations with the strength of fibres

Use everX Posterior as the reinforcing substructure beneath conventional posterior composite to create a strong, bilayered direct restorative solution for clinical situations where inlays and onlays would usually be indicated.

In addition, everX Posterior is an affordable high tech material to be used as an alternative treatment for indirect restorations where patients cannot afford other treatment options, like ceramic restoration.

composite for dentine replacement

Unmatched strength, even stronger than dentine



Fracture Toughness according to ISO 20795-1 standard. University of Lyon1, France, 2013.
Data available upon request.
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everX Posterior contains fibres, optimally sized for maximum strength and fracture toughness.

everX Posterior was designed for maximum strength. It features the optimum size and combination of e-glass fibres and barium glass fillers, within a tough polymer matrix. The short fibres used in everX Posterior provide fracture toughness greater than collagen-reinforced dentine and almost double that of conventional composite.

everX as a dentin replacement

Place everX Posterior as a dentine replacement and overlay with a conventional composite, such as G-ænial POSTERIOR, as an enamel replacement.

In large cavities, where strength is important, this new combination of materials creates a biomimetic restoration of the tooth and provides the solution for stronger, more durable posterior composite restorations.

everX Posterior™ is the answer to the growing demand for an economic solution for large restorations.

Key application techniques

everX Posterior is available in a universal shade and should always be overlaid with an external composite material.

everX Posterior is indicated for cavities greater than 3mm width

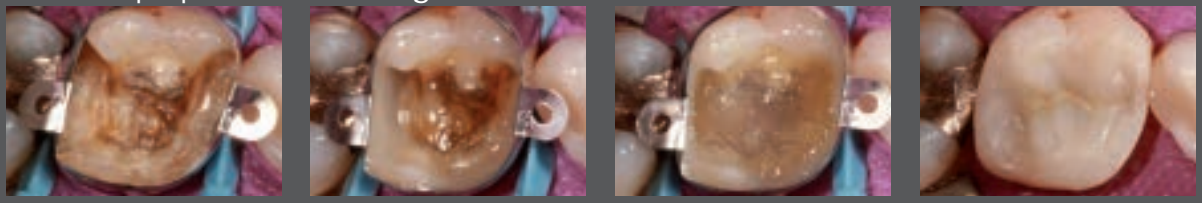
After bonding, replace any missing walls with conventional composite

Apply everX Posterior

Cover with a final 1-2mm layer of conventional composite

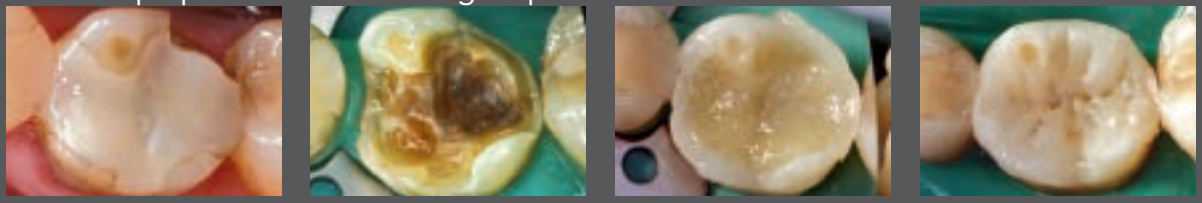
Increase your restorative options

Extensive preparations involving 3 or more surfaces



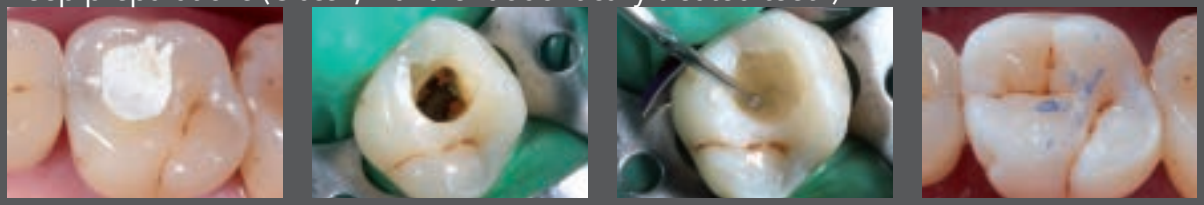
Dr. M. Diernaes, Denmark

Extensive preparations with missing cusps



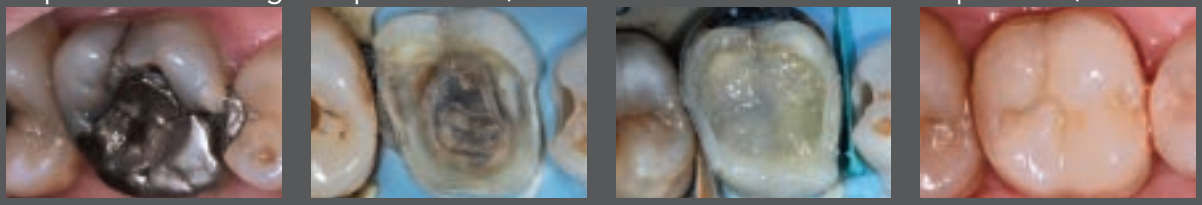
Dr. Y. Marinova, Bulgaria

Deep preparations (Class I, II and endodontically treated teeth)



Dr. R. Veleninov, Bulgaria

Preparations for amalgam replacements (often associated with cracks and cusp fracture)



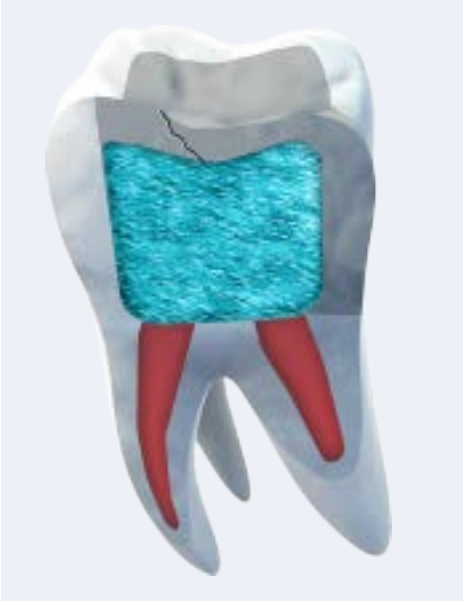
Prof. M. Peumans, Belgium

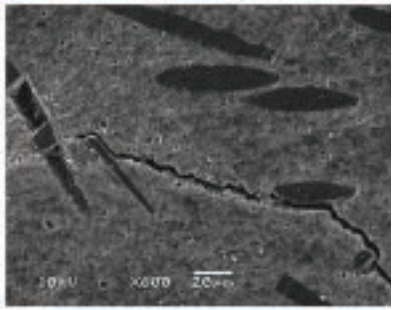
Innovation from e-glass fibre technology

Fibres prevent and stop crack propagation

According to literature (van Dijken 2011), the most common reason for failure of the composite restoration/fillings is the fracture of the composite followed by the secondary caries.

The overall failure rate of Class II restorations after seven years was 14.9 % and nearly 50 % of them were composite fractures.





Cracks are a common issue, starting as a result of stress on the surface of composite and then slowly propagating through the filling and the tooth.

everX Posterior is fracture resistant and designed to stop crack propagation. Fibres of everX will improve longevity of restorations.

Fibres change fracture patterns of endo treated teeth

Crack propagation under load

Predominant fracture types (favourable/unfavourable)

Fracture line within the composite

REPAIR POSSIBLE

Fracture line within the composite AND Tooth structure

EXTRACTION?

When everX Posterior is used as a substructure under conventional composite, not only is strength significantly improved, but also the fracture pattern under load is changed. If the restoration is loaded till failure, the path of a fracture changes and is deflected away from the roots.

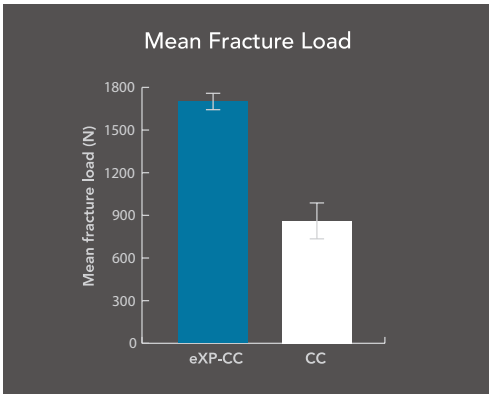
Lammi M, Tanner J, Le Bell-Rönnlöf A-M, Lassila L, Vallittu P. Restoration of endodontically treated molars using fibre reinforced composite substructure. J Dent Res 2011 90 (Spec Iss A): 2517

everX Posterior significantly reinforces composite crowns in endo treated molars resulting in more easy to restore fractures

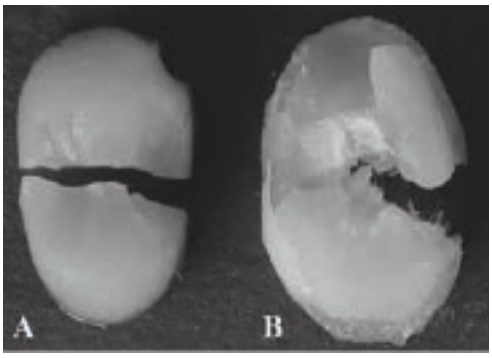
Fibres increase fracture resistance

The synergistic effect of everX Posterior and conventional composite will create a bilayered restoration that can withstand double the load of a restoration made from conventional composite alone.

Garoushi S, Lassila LV, Vallittu PK. Fibre-reinforced composite substructure: Load-bearing capacity of an onlay restoration. Acta Odontol Scand 2006 64:281-285.



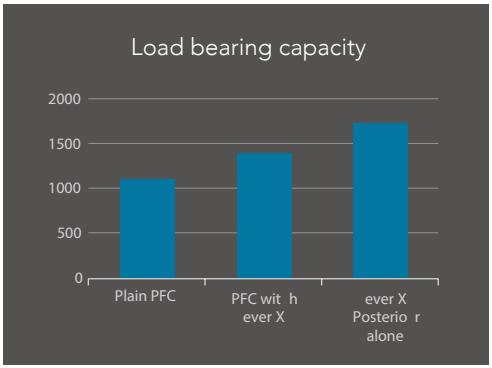
The strengthening effect of the fibres is proven by increased fracture resistance. It can be concluded that material withstands biting forces well at posterior area.



Fibres maximize strength

Load Bearing capacity of everX Posterior substructure in sandwich technique for onlay restoration is well above that of the maximum biting force of healthy humans and significantly higher than that of conventional composite alone.

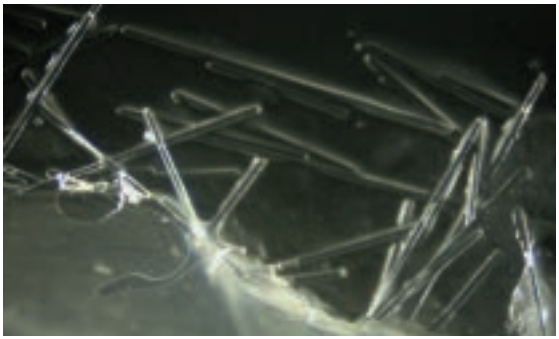
(Garoushi, 2012)



Fibres maximize bonding

To create a bilayered restoration, the adhesion between everX Posterior and conventional composite is a key factor in the success of the layering technique.

The fibres in everX Posterior increase the adhesion to overlying composite by providing added mechanical retention.

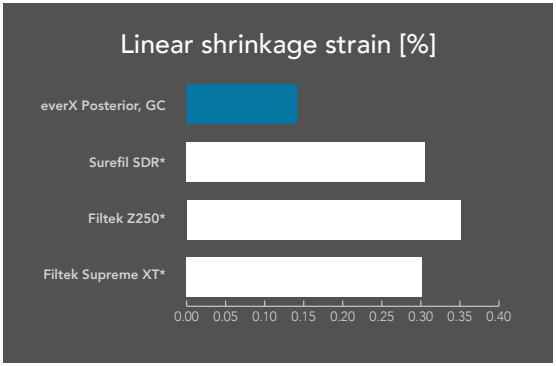


For reliable sandwich structures

Fibres Direct Shrinkage

Like all other composites, everX Posterior will shrink slightly on polymerisation, however its shrinkage characteristics are different to other composites.

During placement, fibres orientate into a horizontal plane within the cavity. Due to the strong adhesion between resin and silanated fibres in everX Posterior, the direction of the fibres minimises shrinkage in the horizontal plane after placement.



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Garoushi S, et al. Physical properties and depth of cure of a new short fibre reinforced composite. Dent Mater (2013), in press

everX Posterior™ - reinforcement for large posterior restorations

Initial situation

Prepare cavity and apply bonding

Apply everX Posterior in 4mm layer

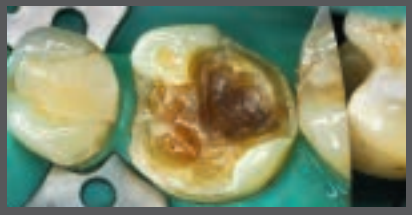
Light cure and apply outer composite layer

Check Occlusion and polish

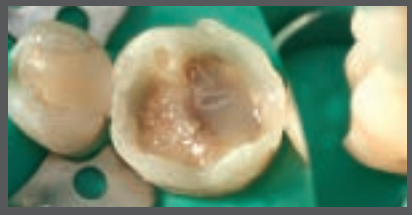
Courtesy Pr H. Ngo, Kuwait, Australia, UK, Vietnam

everX Posterior™ - for cavities where inlays/onlays are indicated

Defective composite restoration



Cavity preparation



Build-up of missing walls with G-ænial Posterior

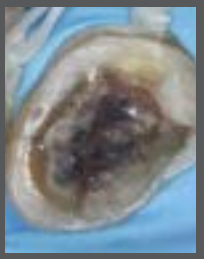
Application of everX Posterior

Final restoration after final layer of G-ænial Posterior

Courtesy Dr Y. Marinova, Bulgaria

everX Posterior™ - replacing old amalgam

Initial situation

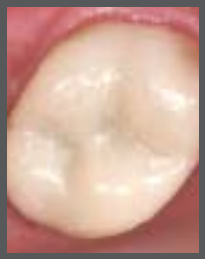


Prepare cavity and apply bonding

Build the external walls with composite

Apply everX Posterior up to 4 mm layer

Apply outer composite layer



Check Occlusion & polish

Courtesy Prof M. Peumans, Leuven, Belgium

everX Posterior™ - restoration after endo treatment

Initial situation

Prepare cavity and apply bonding

Build the external walls with composite

Apply everX Posterior in 4 mm layer

Light-cure and apply outer composite layer

Check Occlusion & polish

Courtesy Dr J. Sabbagh, Belgium

Reinforce your restorations with the **strength of fibres**

- Short fibres prevent fracture propagation in fillings and tooth structure
- Fracture toughness equivalent to dentine and almost double that of any other composite will result in the restoration having unsurpassed strength
- 4 mm increments can be cured simultaneously, reducing procedure time
- Reliable bond to any overlaying composite as well as to the tooth substance

005117 everX Posterior™
Unitip, 15 x 0.25g (0.13mL), Universal shade (transparent)

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