

REINFORCED CAD/CAM COMPOSITE FOR PERMANENT RESTORATION



BRILLIANT Crios

High performance – made brilliant

Naturally brilliant: Permanent restorations with BRILLIANT Crios

Close to nature due to biomimetics

- Tooth-like flexural strength for resistant restorations
- Tooth-like modulus of elasticity for a shock-absorbing effect and pleasant bite experience
- Abrasion-resistant composite, at the same time gentle on the antagonist
- Blends in extremely well to provide natural aesthetics

Efficient & economical

- Effortless polishing for fast gloss
- No firing process required
- Impressive grinding precision and speed
- Can be repaired intraorally



Efficient & economical



High precision

Processing the composite in a milling unit is not only fast, but also precise. BRILLIANT Crios can be ground precisely without the risk of chipping, even in the case of extremely thin edges. This provides more flexibility in the design of the restoration.



Fast high gloss

Immediately after grinding, BRILLIANT Crios displays an extremely homogeneous surface structure. This means that the restoration can be polished to a high gloss within 3-5 minutes using the Alpen ShapeGuard system.



Short processing time

BRILLIANT Crios can be ground in just a few minutes:

Anterior crown: 08:18 min**
Posterior crown: 12:24 min**

In addition, the firing process required for many ceramics is no longer necessary, which saves further valuable time and minimizes risks. This allows patients to be treated in less than an hour.



Easy to repair

Compared to other material classes, composites are easy to repair intraorally. The lesser repair effort saves both the user and the patient valuable treatment time.



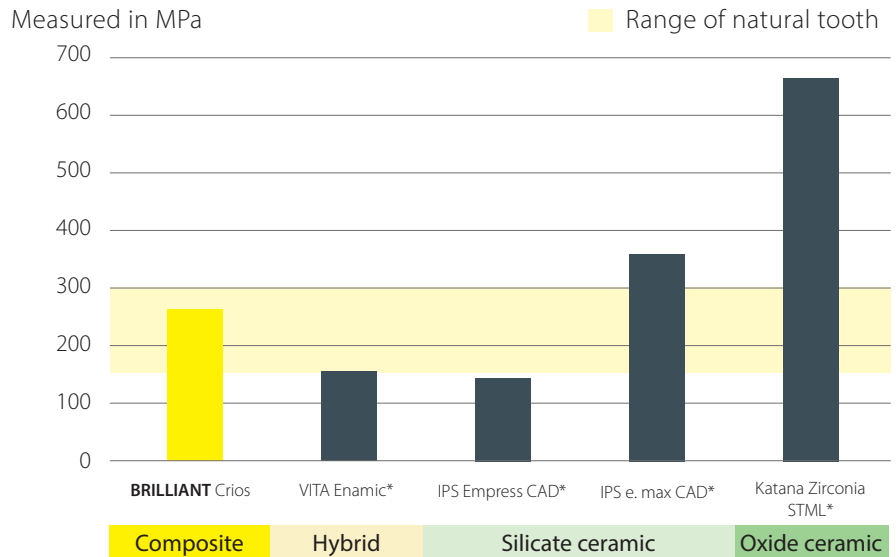
Nature as a role model

Stronger, harder and more robust? This motto is not always appropriate. BRILLIANT Crios is based on the principles of biomimetic dentistry. Instead of favoring extremely high mechanical values, the focus is on restoring lost tooth structure as naturally as possible and ensuring long-term tooth preservation.

Tooth-like flexural strength...

With a flexural strength of 262 MPa, BRILLIANT Crios mimics the mechanical properties of natural teeth, which lie in the range of 150-300 MPa.

Biaxial flexural strength

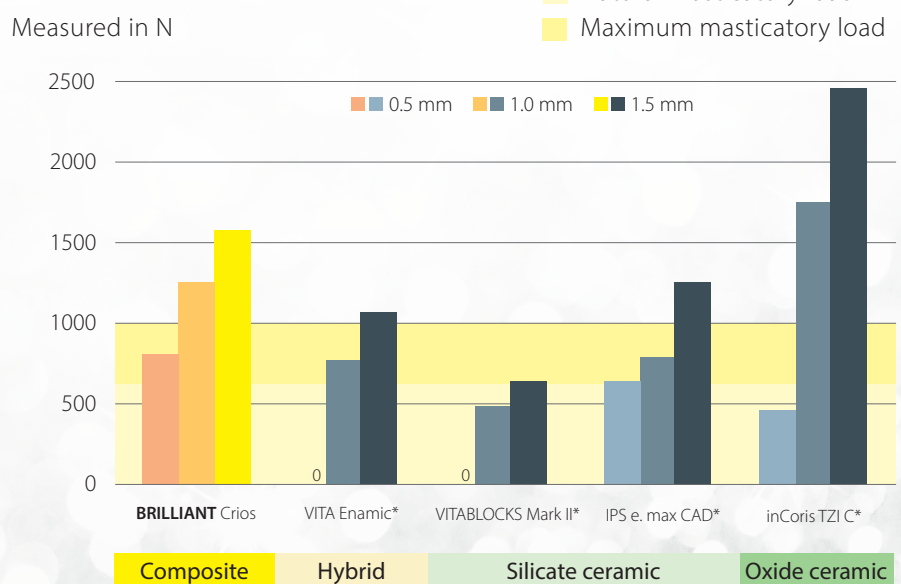


Source: internal data | * not a trademark of COLTENE

... for resistant restorations

Despite its lower flexural strength compared to other material classes, BRILLIANT Crios exhibits excellent fracture resistance values. It can therefore resist very high masticatory forces, even at thin wall thicknesses.

Fracture resistance



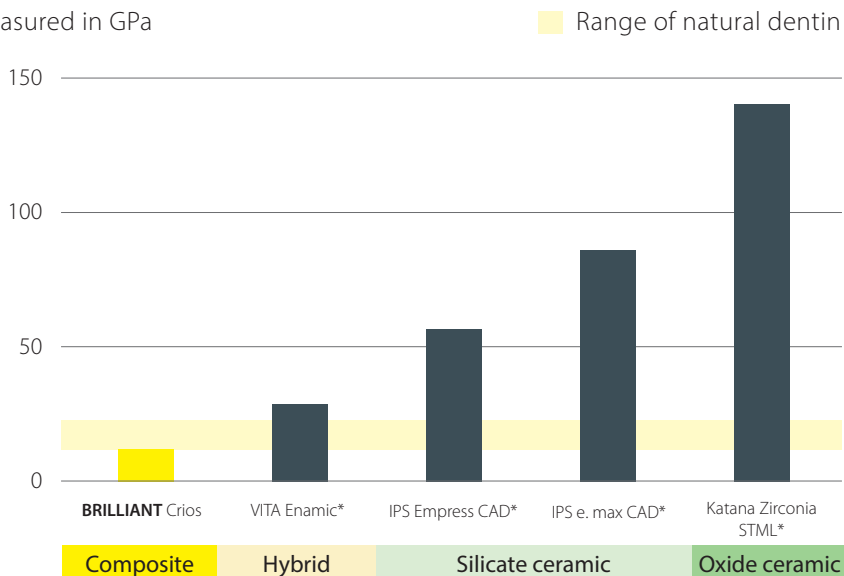
Sources:

- M. Zimmermann, G. Egli, M. Zaruba, A. Mehl. Dent Mater J. 36, 778-783 (2017)
- M. Zimmermann, A. Ender, G. Egli, M. Ozcan, A. Mehl. Clin Oral Investig. Oct 27 (2018), published online
- M. Zimmermann, A. Ender, A. Mehl. Oper Dent (2020) 45 (2) 219-226, published online

* not a trademark of COLTENE

Modulus of elasticity

Measured in GPa



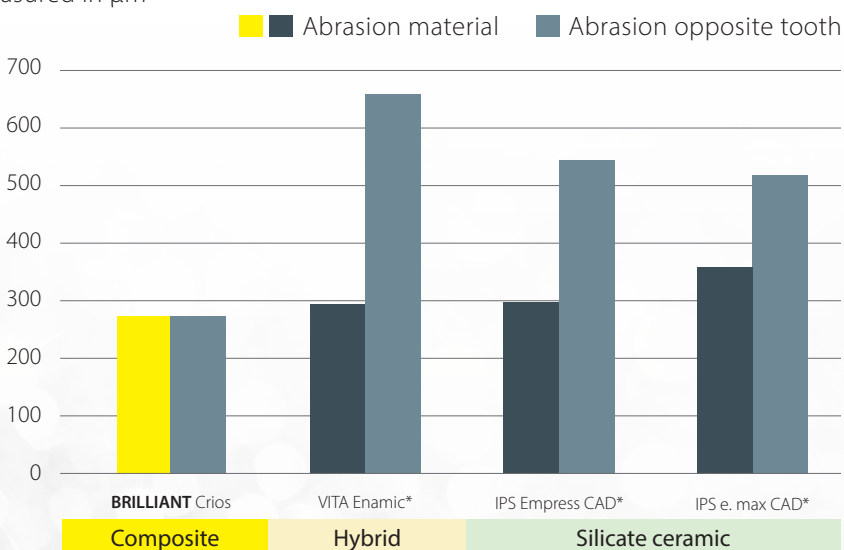
Shock-absorbing effect

The dentin-like modulus of elasticity of BRILLIANT Crios minimises stress peaks caused by chewing and reduces the risk of material fatigue. This shock-absorbing effect makes the material particularly suitable for implant restorations and provides for a pleasant bite experience. The similarity of the modulus of elasticity of tooth structure and BRILLIANT Crios significantly reduces stress at the interfaces.

Source: internal data | * not a trademark of COLTENE

Two-body wear

Measured in μm



Wear resistant and gentle at the same time

BRILLIANT Crios impresses with its outstanding abrasion resistance and is particularly gentle on antagonists when compared to ceramics, as has been confirmed in studies. Due to the comparable abrasion of BRILLIANT Crios and natural tooth structure, the function of the tooth and masticatory system remains stable in the long term.

Source: Stawarczyk et al., J Mech Behav Biomed Mater 55, 1-11 (2015) | * not a trademark of COLTENE

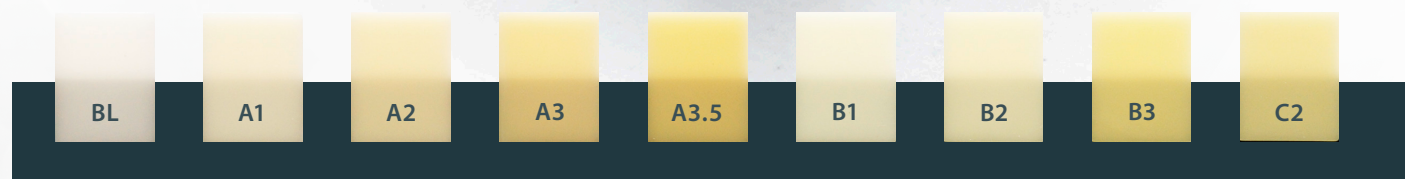
Natural aesthetics – a brilliant result



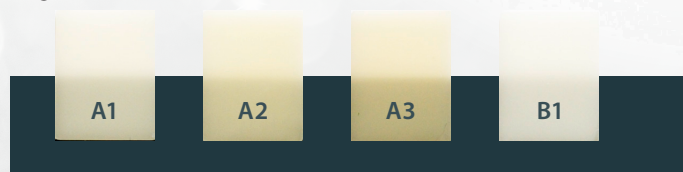
BRILLIANT Crios blends in extremely well and conveys natural aesthetics. The wide range of shades and translucencies perfectly covers the needs of the anterior and posterior region, and effect stains become largely superfluous.

Shades

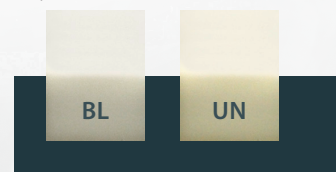
Low Translucent



High Translucent



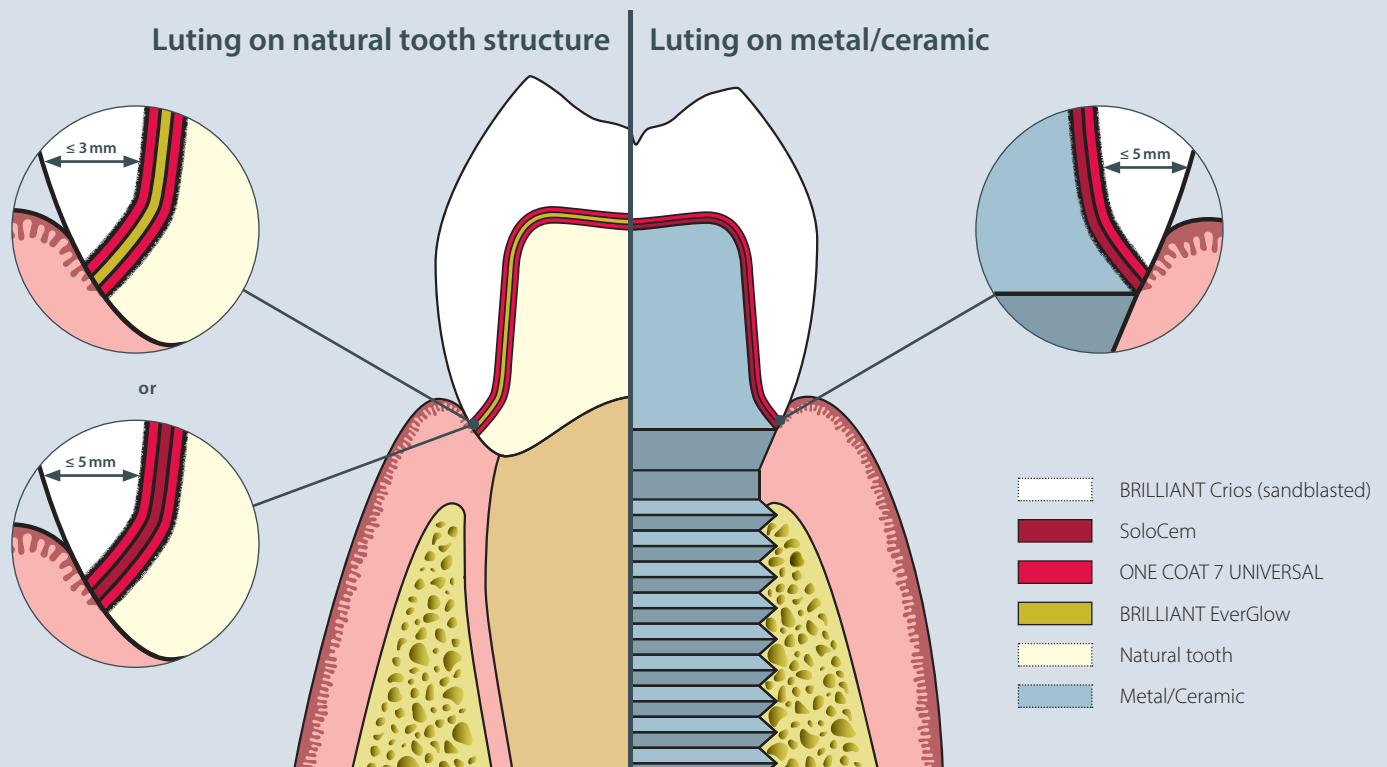
Super Translucent



Reliable luting system

As part of its adhesive filling therapy, COLTENE offers a matched and proven luting system for BRILLIANT Crios. The key component of the luting concept is the universal adhesive ONE COAT 7 UNIVERSAL. The smooth BRILLIANT EverGlow composite

or the dual-curing cement SoloCem offer indication-appropriate solutions, which are employed depending on the wall thickness of the restoration and the luting substrate – ranging from natural dentin to a metal abutment.



BRILLIANT EverGlow

Light-curing composite

Ideal for luting indirect, thin-walled restorations to natural tooth structure or composite:

- Smooth consistency and excellent wetting ability for easy placement of the restoration
- Exceptional aesthetics and long-lasting results

For restorations up to 3 mm wall thickness.

SoloCem

Self-adhesive dual-curing resin cement

Convincing universal luting solution for every type of substrate:

- On tooth/composite with ONE COAT 7 UNIVERSAL as an additional bonding agent
- On metal/ceramic abutments, without additional bonding step

For restorations up to 5 mm wall thickness.

Secure bonding

ONE COAT 7 UNIVERSAL

ONE COAT 7 UNIVERSAL is matched perfectly to the BRILLIANT Crios components, resulting in strong anchorage and a reliable bond. This is why the ONE COAT 7 UNIVERSAL adhesive is to be used in conjunction with BRILLIANT Crios.

The monomers (red) contained in ONE COAT 7 UNIVERSAL penetrate into the polymerized resin matrix of BRILLIANT Crios.



Polymer chains are formed during polymerization of the monomers and these are anchored in the resin matrix.

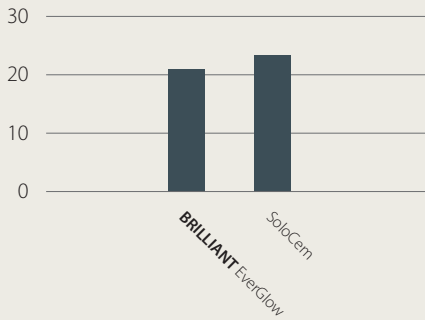


The double bonds contained in the resin matrix form chains during polymerization of the monomers.



Shear bond strength with ONE COAT 7 UNIVERSAL

Measured in MPa



The BRILLIANT EverGlow and SoloCem luting materials demonstrate excellent bonding strengths to give a secure bond with BRILLIANT Crios.



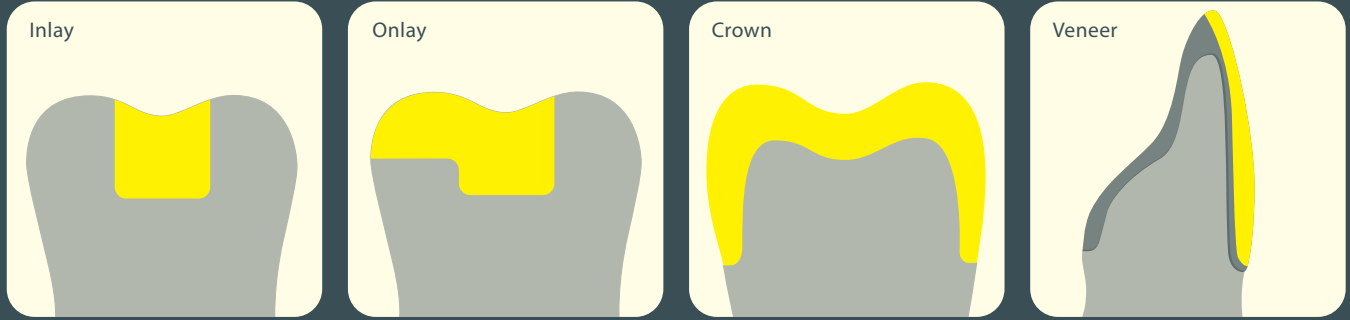
Further properties

ONE COAT 7 UNIVERSAL is a light-curing one-component universal adhesive.

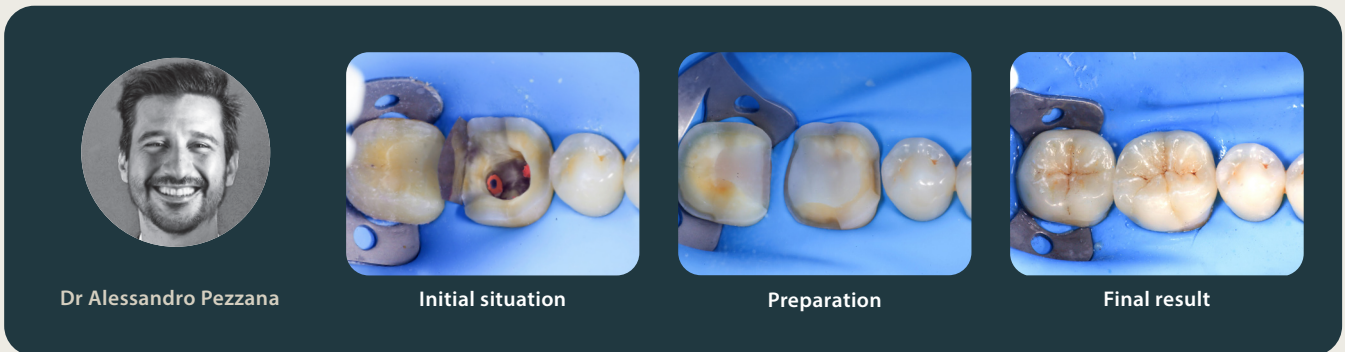
- Outstanding bonding values on different surfaces
- Excellent marginal seal
- Extremely economical: up to 300 applications per bottle
- For all etching techniques (Self-Etch, Selective Etch, Total Etch)

*Methacryloyloxydecyl dihydrogen phosphate

Areas of application



Clinical cases



Order Information

BRILLIANT Crios Refills

Translucency	CEREC/inLab					Planmill	
	Low (LT)		High (HT)		Super (ST)	Low (LT)	High (HT)
Size	12	14	12	14	14	14	14
Content	5 pcs.	5 pcs.	5 pcs.	5 pcs.	5 pcs.	5 pcs.	5 pcs.
Bleach (BL)	60019998	60019985			60024174	60020011	
A1	60019999	60019986	60020007	60019994		60020012	60020020
A2	60020000	60019987	60020008	60019995		60020013	60020021
A3	60020001	60019988	60020009	60019996		60020014	60020022
A3.5	60020002	60019989				60020015	
B1	60020003	60019990	60020010	60019997		60020016	60020023
B2	60020004	60019991				60020017	
B3	60020005	60019992				60020018	
C2	60020006	60019993				60020019	
Universal (UN)					60024175		

Translucency	Disc					
	Low (LT)		High (HT)		Super (ST)	
Height (mm)	14	18	14	18	14	18
Ø (mm)	98.5	98.5	98.5	98.5	98.5	98.5
Content	1 pc.	1 pc.	1 pc.	1 pc.	1 pc.	1 pc.
Bleach (BL)					60024179	60024177
A1	60022899	60022886	60022907	60022894		
A2	60022900	60022887	60022908	60022895		
A3	60022901	60022888	60022909	60022896		
A3.5	60022902	60022889				
Universal (UN)					60024180	60024178



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