

ELSODENT



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Vizualized by dentists designed by Elsodent

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100%

Performances & Clinical Features

FREE¹

HEMA, BisGMA, TEGDMA, BPA

For over 20 years the French laboratory Elsodent has led the dental products industry as the premier manufacturer of more biocompatible restorative solutions, accentuating patient safety and practitioner trust. Extensive research and development programs have produced key Elsodent **innovatives solutions** with real clinical features, to satisfy requirements that practitioners need.

Since 2013, Elsodent is moving towards a **more biocompatible and eco-responsible dentistry** by launching its **BIO Plus** range, using **TEGDMA, HEMA, Bis GMA, Bis EMA-free formulations¹**.

These monomers have a chemical structure that makes them easily hydrolysable (degradable) by salivary enzymes, with release of highly toxic molecules in the mouth (secondary cytotoxicity). This hydrolysis occurs because their conversion rate (polymerization) oscillates between 35% and 65%. TEGDMA and HEMA release formaldehyde, Bis GMA some bisphenol A. TEGDMA and Bis GMA are present at a significant concentration in dental products (8 to 10% for the first, and 20 to 30% for the second). They are used in the composition of dental composites and resins. HEMA is also found in adhesives, resin cements, adhesives and liners.

Non-degradable replacement monomers, derived from our research programs or modified by our R&D department, are now preferred in our formulations. Moreover, they allow higher conversion rates (up to 70%) and keep our products **performing exceptional physical and mechanical qualities!**

Now, most of our products fit the BIOPlus specifications and are **manufactured without any addition of TEGDMA, Bis GMA, BPA, HEMA**. They are easy to identify thanks to the **BIO Plus** logo!

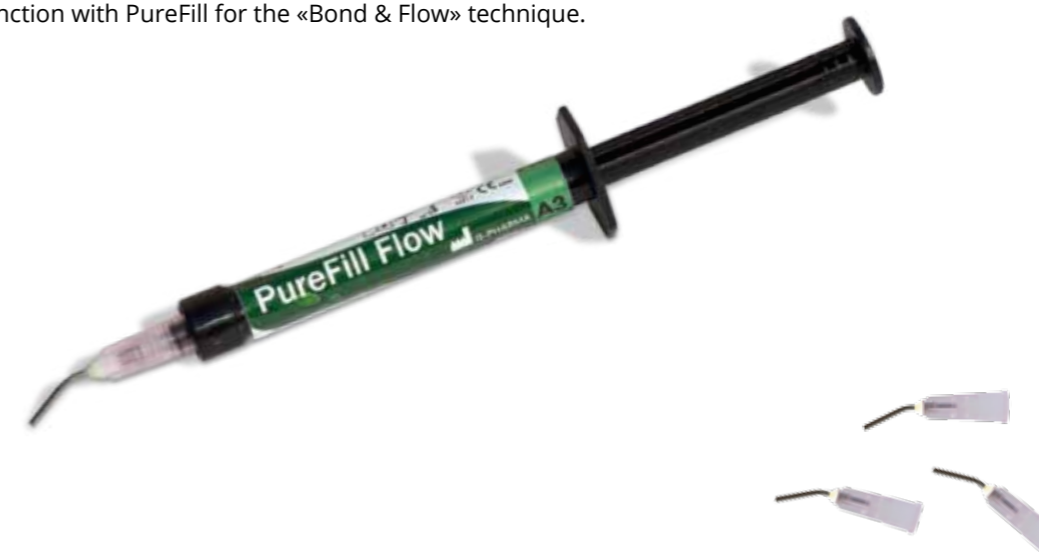
PUREFILL FLOW

Flowable nano-hybrid composite

HEMA, TEGDMA, Bis GMA and BPA-Free¹

Features

- Biocompatibility +++.
- Conversion rate > 70%
- Highly filled.
- Thixotropic: the material does not flow and remains in place.
- Time saving: no need for a metallic matrix.
- Very resistant: flexural strength > 100 MPa.
- Ideal in conjunction with PureFill for the «Bond & Flow» technique.



Indications

- Restoration of small classes III and classes V.
- Its perfect thixotropy and its high flexural strength, makes Purefill Flow the ideal flowable composite to fix splints after orthodontic treatments or in case of mobile teeth.
- Cavity liner in the «Bond and Flow» technique.

References & Presentations

PURF-4*	2 x 1,2 ml (minimum 2g) syringes + 10 tips. Available in the following VITA shades: A1/B1 - A2 - A3 - A3,5 - B2.
IR-100	100 pink needle tips. Gauge 18.

* Shade

MD : Class IIa certified by Tüv Rheinland (0197).

Sources :

- Genotoxicity and cytotoxicity of 2-hydroxyethyl methacrylate - Elzbieta pawlowska et al. - Mutation Research 696 (2010) 122-129
- Cytotoxicity of the dental composite component TEGDMA and selected metabolic by-products in human pulmonary cells - J Emler et al.
- TEGDMA and Bisphenol-A : the same level of risk in dental medicine ? - Jean-Marc Meyer - Autredent, No. 56, pages 81-86, 2010.

¹ BIOPLUS product range is manufactured without any addition of TEGMA, HEMA, Bis GMA.



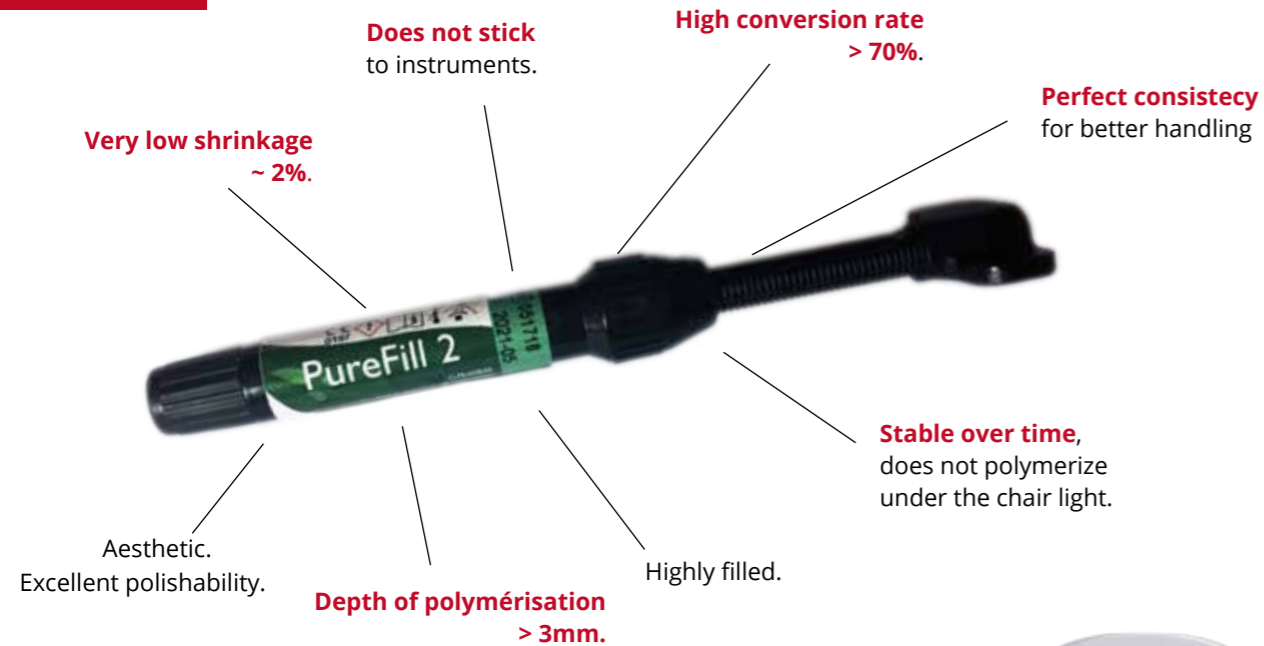
¹ BIOPLUS product range is manufactured without any addition of TEGMA, HEMA, Bis GMA.



PUREFILL 2

Nano-hybrid, antero-posterior composite
HEMA, TEGDMA, Bis GMA and BPA-Free¹

Features



Indications

- Posterior restorations (class I, class II, MOD).
- Anterior restorations (class III and class IV).
- Class V cavities.
- Aesthetic corrections (diastema, hypoplasia, discoloration).

This is the first Elsodent composite developed from an innovative Bis GMA, TEGDMA, HEMA-free formulation, to get a low toxicity composite. Its higher biocompatibility, due to the non-hydrolysable monomers contained in the matrix of the product, leads to a lower toxicity over time. It makes PureFill an essential product in our declared approach to public health. Furthermore, the results of comparison tests show the astonishing mechanical and physical qualities of PureFill.

References & Presentations

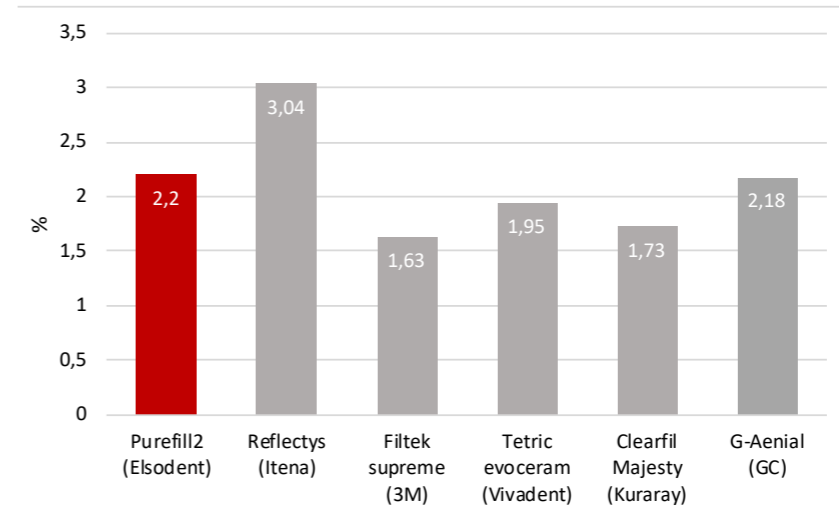
PUR2-3-*	3g syringe. Available in the following VITA shades: A1/B1 - A2 - A3 - A3,5 - B2.
PUR2-5*	20 x 0,25g compules. Available in the following VITA shades: A1/B1 - A2 - A3 - A3,5 - B2.

* Shade MD : Class IIa certified by Tüv Rheinland (0197).

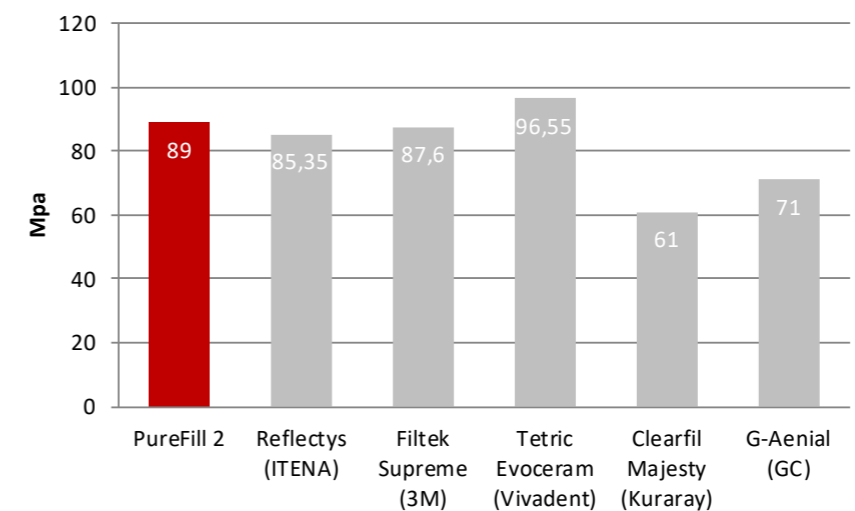
¹ BIOPLUS product range is manufactured without any addition of TEGMA, HEMA, Bis GMA.

PHYSICO-CHEMICAL COMPARATIVE TESTS

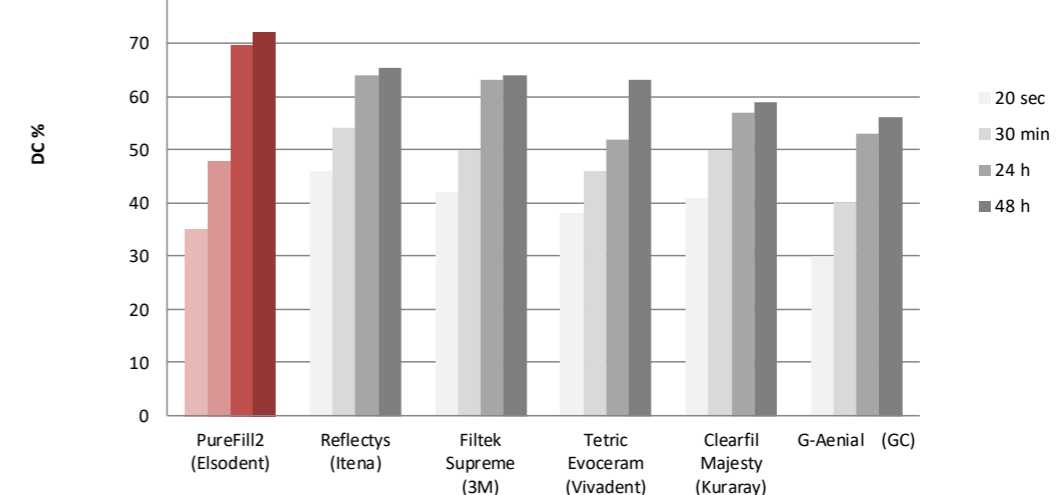
Shrinkage*



Flexural Strength*



Conversion rate*



* Tests conducted by G-Pharma. Volumetric shrinkage was determined by dentistry measurements according to Archimedes Principe and ISO 17304-2013. Flexural strength: tests carried out with a Zwick equipment following the ISO 4049 : 2009 norm. Conversion rate : the degree of conversion was evaluated using a FTIR spectrometer with an attenuated total reflectance (ATR) accessory. The polymerization has been conducted by an Elsodent lamp: 9mm of diameter and 600mW/cm² power at room temperature (20°C).



OPAQ

Light-curing opaquer
 HEMA, TEGDMA, Bis GMA and BPA-free¹

Features

- Versatile in use.
- High hiding power.

Indications

- To hide exposed metal surfaces after fracture of the ceramic layer on bridges and crowns.
- To cover the reactive dentin in deep class III, to avoid layers of composite.



References & Presentations

OPA-2	1 x 1,2ml syringe + 10 applicator tips. Available in A3 shade.
LTL	100 black needle tips. Gauge 20.

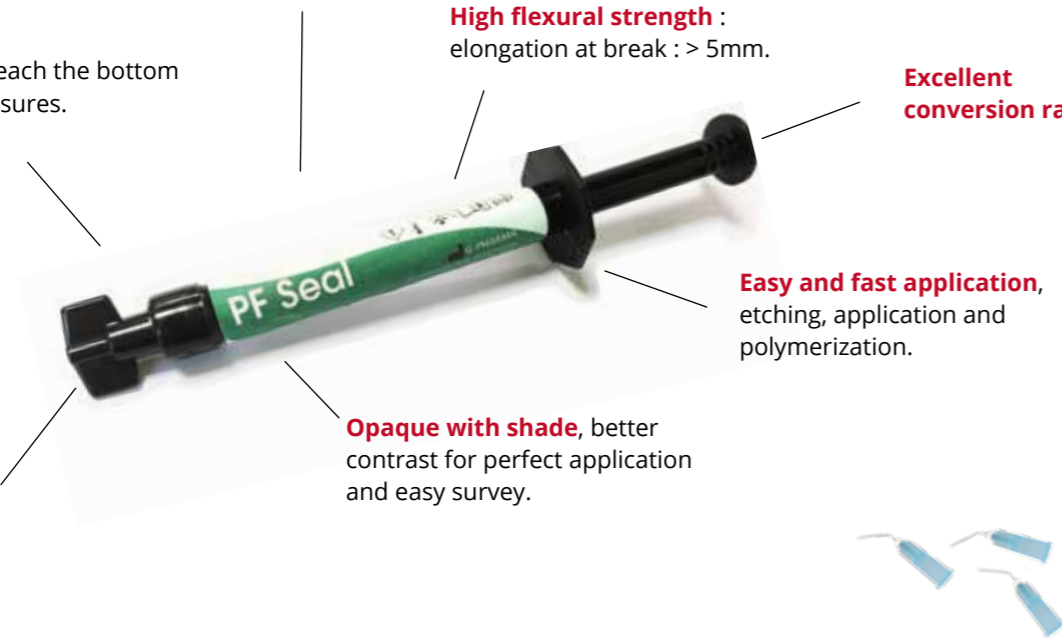
MD : Class IIa certified by Tüv Rheinland (0197).

PF SEAL

Pits and fissures sealant
 HEMA, TEGDMA, Bis GMA and BPA-free¹

Features

- Very fluid** : can reach the bottom of the thinnest fissures.
- Hydrophobic** : Sustainability
- High flexural strength** : elongation at break : > 5mm.
- Excellent conversion rate.**
- Easy and fast application**, etching, application and polymerization.
- Very resistant**, less abrasion.
- Opaque with shade**, better contrast for perfect application and easy survey.



References & Presentations

PFS-3,6	2x1,2ml syringes + 10 blue needle tips. Opaque white shade.
ETL	100 blue needle tips. Gauge 25.

Indications

Pits and fissures sealant.

¹ BIOPLUS product range is manufactured without any addition of TEGMA, HEMA, Bis GMA.

MD : Class IIa certified by Tüv Rheinland (0197).

DUROC

Resin-based bite registration material, implant transfer caps splinting
 HEMA, TEGDMA, Bis GMA and BPA-free¹



Features

- Duroc has been developed from a mix of special resins to give one of the most rigid bite registration materials available.
- High flexural strength.
- Negligible linear shrinkage.
- Thixotropic: does not flow between teeth.
- Burn with no residue.
- Reduced exothermic reaction when setting.
- Fast setting time: ~ 40 seconds.
- Blue for a strong contrast.
- Easy to trim the excess.

Indications

- Fixing together implant transfer caps before final impression.
- Bite registration, especially when the centric relation is unstable.

Other indications

- To quickly and perfectly fix the two parts of a bridge infrastructure.
- To elaborate inlays cores in direct method.

References & Presentations

DU-50	50ml cartridge + 10 mixing tips.
EJ-100	100 yellow mixing tips.

MD : Class IIa certified by Tüv Rheinland (0197).

¹ BIOPLUS product range is manufactured without any addition of TEGMA, HEMA, Bis GMA.



HEALBOND MP

Universal desensitizing self-etching light cure bonding agent
HEMA, TEGDMA, Bis GMA-free¹

Features

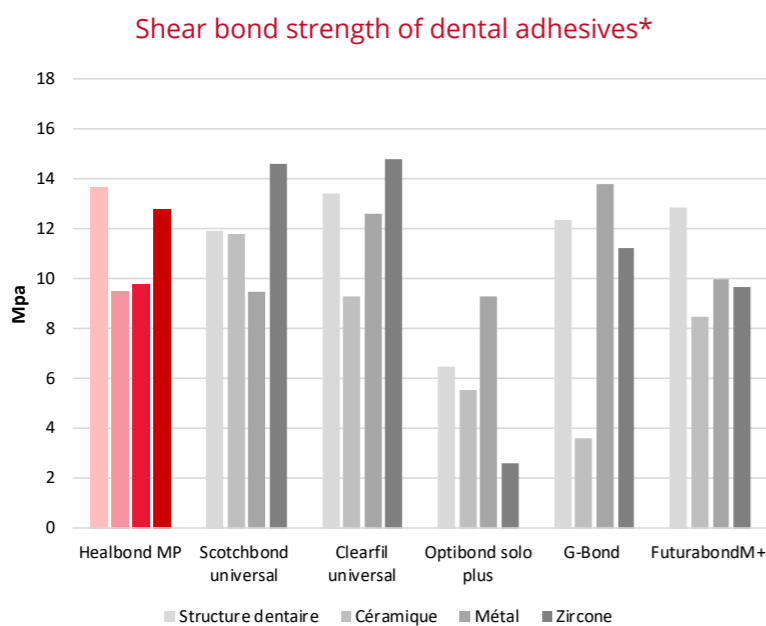
- Multi-purpose (direct and indirect restorations) and universal : excellent shear bond strength on tooth structures, ceramic, metal and Zirconia.
- Good wetting properties to be used on slightly moist dentin surfaces (wet-bonding-technique).
- Contains Benzalkonium Chloride to eliminate residual bacteria (no post-operative sensitivities).
- Releases fluoride.

Indications

- Light-curing composites on tooth structures.
- Light-curing composites on metal (replacement of broken ceramic chips in mouth).
- Dual-curing mode (core build-up), when mixed with Healbond MP activator.

In conjunction with InnoCem :

- To bond ceramic veneers, root canal posts and Maryland bridges.



References & Presentations

BMP-5	5ml bottle.
BMPA-5	Activator for dual-curing use. 5ml bottle.

MD : Class IIa certified by Tüv Rheinland (0197).

* Tests conducted by G-Pharma. Shear bond strength : tests carried out following the ISO 11405 norm. Conversion rate : the degree of conversion was evaluated using a FTIR spectrometer with an attenuated total reflectance (ATR) accessory. The polymerization has been conducted by an Elsodent lamp: 9mm of diameter and 600mW/cm² power at room temperature (20°C).

¹ BIOPLUS product range is manufactured without any addition of TEGMA, HEMA, Bis GMA.



HEALBOND

Light-cure bonding agent
HEMA, TEGDMA, Bis GMA-free¹

Features

Releases fluoride.

Shear bond strength :
 ~ 12,9 MPa.

High conversion rate :
 65% in 20sec.

Good wetting properties to be used on slightly moist dentin surfaces (wet-bonding-technique).

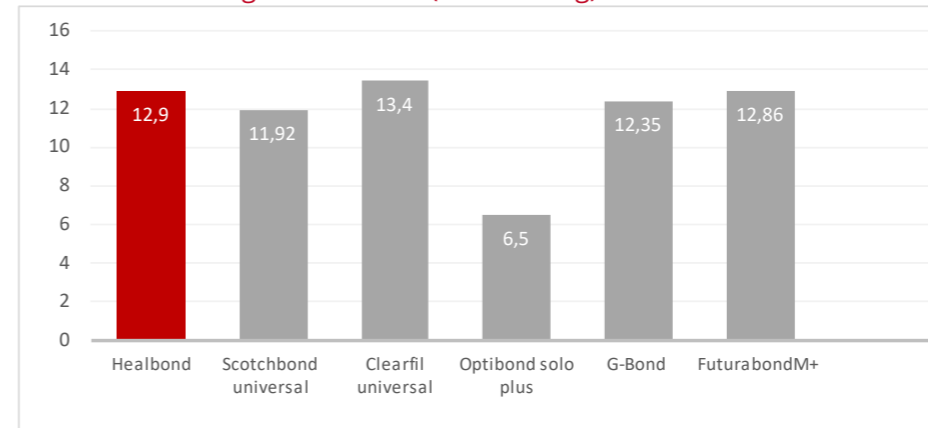
Contains Benzalkonium Chloride to eliminate residual bacteria (no post-operative sensitivities).



Indications

- Light-curing composites on tooth structures.
- To desensitise cervical regions and free dentin areas.
- Dual-curing mode (core build-up), when mixed with Healbond activator.

Shear bond strength on dentine (with etching)*



References & Presentations

B-5	5ml bottle.
BA-5	Activator for dual-curing use. 5ml bottle.

MD : Class IIa certified by Tüv Rheinland (0197).

¹ BIOPLUS product range is manufactured without any addition of TEGMA, HEMA, Bis GMA.



INNOCEM

Self-adhesive universal permanent resin cement

HEMA, TEGDMA, Bis GMA and BPA-free¹



Features

Fast and easy to use.

- Strong adhesion to dentin, metal, Zirconia, composite and etched (or silanated) ceramic. No pre-treatment required in most case. To cement etched ceramic veneers, Maryland bridges and posts, the tooth structures must be etched and the use of Healbond MP in conjunction with InnoCem is strongly recommended.
- Highest conversion rate on the market: 58,40% at 30mn: **less primary toxicity.**
- HEMA, TEGDMA, Bis GMA and BPA-free : **less secondary toxicity.**
- High flexural strength: 90 MPa.
- After 5 seconds of polymerisation, the excesses remain slightly rubbery to be easily removed.
- Due to its strong hiding power, associated to an extreme opacity, the opaque versions of InnoCem are the best choices for cementation of aesthetic prosthetics elements on implant abutments, or on metallic elements such as inlay core and amalgams.
- Good balance between hydrophobia for a long-term and stable adhesion, and a slight hydrophilia before polymerization to allow InnoCem to chemically bond to collagen fibers and phosphate ions, when used on vital teeth.
- Waterproof and stability over time: no post-operative sensitivities.
- Easy to handle: dual syringe for a perfect dosage and intra-oral fine or xfine tips to facilitate the placement inside the mouth in the intrados of prosthesis or directly into the root canal.

Indications

- Metal, composite, etched (or silanated ceramic) inlays, onlays, crowns and bridges.

In conjunction with Healbond MP:

- Maryland bridges of 2 to 3 elements.
- Etched (or silanated) ceramic veneers.
- Root canal posts (metallic or fiber posts).

In case of low abutment teeth an etching prior to cementation will improve the adhesive strength of InnoCem.

References & Presentations

iC-10-TA2 1 x 5ml + 10 mixing tips + 10 regular intraoral tips. Translucent A2 shade.

iC-10-OA2 1 x 5 ml + 10 mixing tips + 10 regular intraoral tips. Opaque A2 shade.

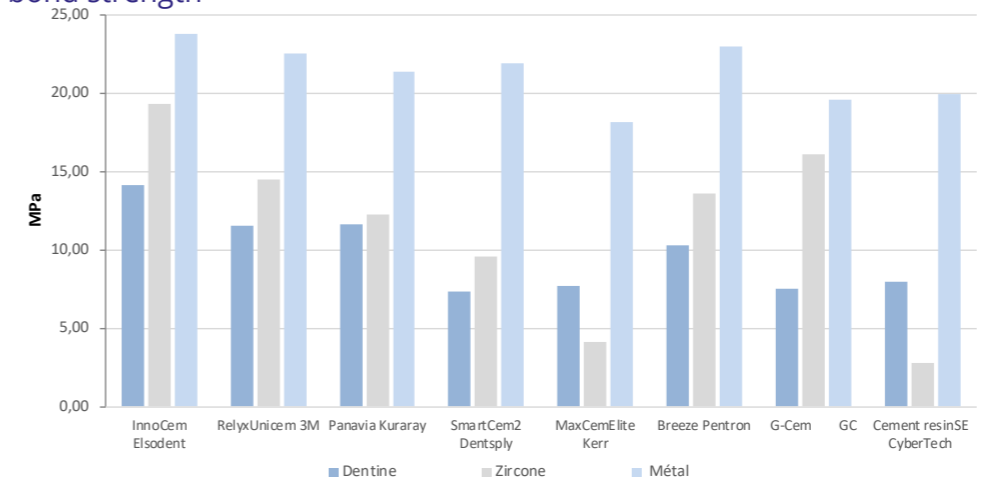
iC-10-OA3 1 x 5 ml + 10 mixing tips + 10 regular intraoral tips. Opaque A3 shade.

MD : Class IIa certified by TÜV Rheinland (0197).

¹ BIOPLUS product range is manufactured without any addition of TEGMA, HEMA, Bis GMA.

TESTS RESULTS & COMPARISON

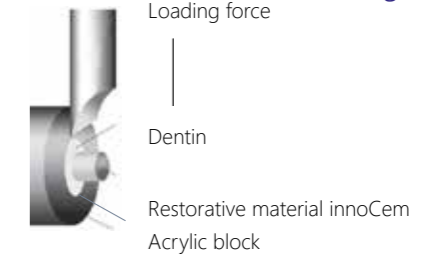
Shear bond strength*



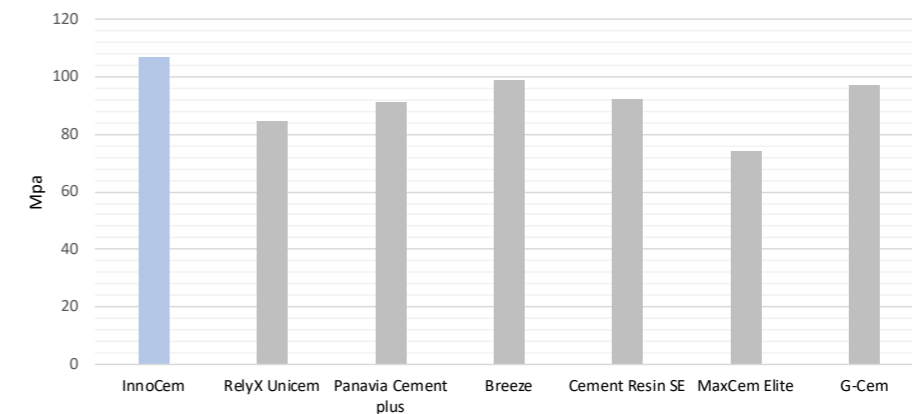
Excellent adhesion to :

- Dentin: 14,10 MPa.
- Zirconia: 19,3 MPa.
- Metal: 23,81MPa.

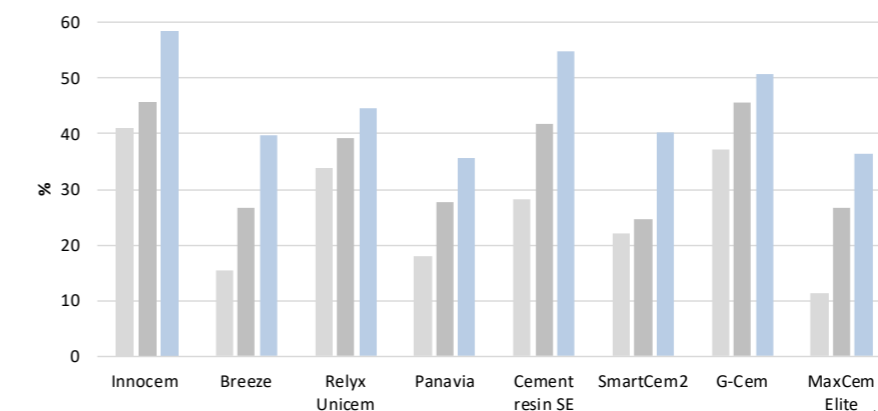
Illustration of the shear bond strength test*



Flexural strength*



Conversion rates*



* Tests conducted by G-Pharma. according to the norms: Flexural Strength according to ISO 4049 and carried out with a Zwick equipment. The Degree of conversion was evaluated using FTIR spectrometer with an attenuated total reflectance (ATR) accessory. Shear bond strength according to the norms ISO 11405 and carried out with a Zwick equipment.



SEAL TEMP & SEAL TEMP S

Temporary resin-based cements
 HEMA, TEGDMA, Bis GMA and BPA-free¹



Features

1. Perio-friendly

- Due to the smooth texture of the cement, the gum completely heals within 2 to 3 days. Any procedure (impression, etc) can be performed without haemostatic problems.

2. Time saving

- The cement sticks to the intrados of the temporary crowns: The prepared teeth always remain clean.
- Before putting the temporary crown back on the tooth:
 - For SEAL TEMP, just apply a new layer of cement.
 - If a supra-occlusion occurs, just trim the external surface of the temporary crown.
 - For SEAL TEMP S, remove the old layer of cement with tweezers, prior to applying a new one.

3. Other feature

- Both versions are suitable for vital teeth.

Indications

- **Seal Temp - Strong retention strength.**
- Temporary bridges and crowns on low abutment teeth.
- Long-term temporary crowns (2-3 months).
- Definitive cementation of crowns on implant, except prosthetics elements in Zirconia.
- **Seal Temp S - Classic retention strength.**
- Temporary bridges and crowns on normal abutment teeth and implants.
- Temporary cementation of definitive veneers to valid the aesthetic.



References & Presentations

Seal Temp

ST-25	2 x 12,5g syringes (base + catalyst).
STD-16	2 x 5ml dual syringes + 20 mixing tips.
STD-8	1 x 5ml dual syringe + 10 mixing tips.
EM-100	100 Brown mixing tips.

Seal Temp S

STS-25	2 x 12,5g syringes (base + catalyst).
STDS-16	2 x 5ml dual syringes + 20 mixing tips.
STDS-8	1 x 5ml dual syringe + 10 mixing tips.
EM-100	100 Brown mixing tips.

* Quantity MD : Class IIa certified by Tuv Rheinland (0197).
¹ BIOPLUS product range is manufactured without any addition of TEGMA, HEMA, Bis GMA.

PROREZ

Dual-curing composite for temporary filling
 HEMA, TEGDMA, Bis GMA and BPA-free¹

Features

Fast setting : 45 sec in self-curing mode.

Thixotropic.

Easy to place, even in small or narrow cavities, with the dual syringe and its intra-oral tip.

Waterproof.

Easy to remove with a probe or a curette.

Aesthetic (shade A3).

Fluoride release.

Indications

- Temporary filling for inlay and onlay preparations.
- Temporary filling for implant screw holes.
- Temporary filling for other cavities to be protected (after endodontic treatments...).

References & Presentations

PRZ-16	2 x 5ml dual syringes + 20 mixing tips + 20 regular intra-oral tips.
EMP-100	Brown tip - Quantity: 100.
IMP-100	Intra-oral tip for (EMP) - 100.

MD : Class IIa certified by Tuv Rheinland (0197).

NOTRE DAM

Multipurpose light-curing liquid dam
HEMA, TEGDMA, Bis GMA and BPA-free¹

Features

Excellent thixotropy for an easy setting of the material.

Low exothermic reaction to avoid harmful reaction of the mucosa.

Versatile in use.

Blue for a good contrast.



Indications

- **Bleaching**
 - Protection of soft tissues during bleaching process.
- **Endodontic**
 - To insure a waterproof joint of the rubber dam around a tooth during an endodontic session.
 - To build temporary tooth walls during endodontic sessions, to hold the irrigating liquid in place.
- **Prosthodontic**
 - To fill up undercuts before impression, to avoid tearing off the material.
- **Restorative dentistry**
 - To hold Teflon® film in place when luting aesthetic veneers, or making a class II composite involving the contact point.

References & Presentations

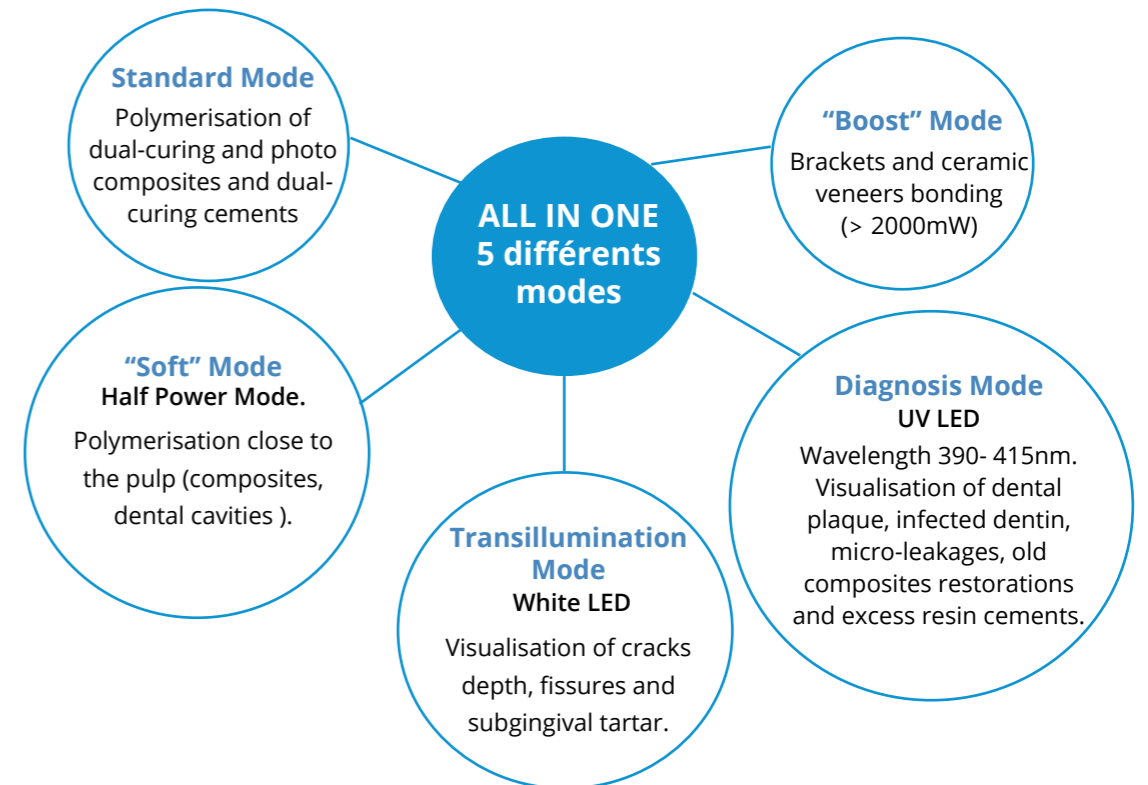
ND- 4	2 x 1,2ml syringes + 10 black applicator tips. Blue shade.
LTL	100 black needle tips. Gauge 20.

MD : Class IIa certified by Tuv Rheinland (0197).

ULTIMA

Multi-purpose, high performance LED curing light

- Universal.
- Ultra-resistant: aeronautical aluminum.
- Ergonomic: handy and very light - 85g only.
- Easy maintenance: change the battery yourself for a few euros only!
- Intuitive: 2 touch keys, «on / off» and mode (polymerization / diagnosis).



Keep ULTIMA always charged and totally independent from the base with an extra battery plus a battery charger!



Références & Présentations

ULTI-G	1 handpiece + 1 station / charger + 1 rechargeable battery + 100 disposable protection sleeves + 2 orange eyes shields. Aluminum color.
ULTI-N	1 handpiece + 1 station / charger + 1 rechargeable battery + 100 disposable protection sleeves + 2 orange eyes shields. Black matt color.
GJ-500	500 disposable protection sleeves.
C-BAT	Battery charger
BAT-3.7-L	Battery

MD : class I.

ELSODENT



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