

ENAHRI®

BIO FUNCTION

Biocompatible



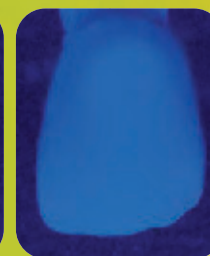
THE BIOCOMPATIBLE COMPOSITE WITH UNIQUE CHARACTERISTICS | FOR ANTERIOR & POSTERIOR

- > **Highly Biocompatible** does not contain Co-monomers nor Bis-GMA, does not contain free nanoparticles
- > **Similar abrasion** to natural enamel
- > **Mechanical and functional characteristics** similar to gold
- > **Ideal polishability and handling**
- > **Suitable** for direct and indirect technique
- > **High Radiopacity** (250% compared to aluminium)
- > Contains **Fluoride**

FLUORESCENCE
LIKE THE NATURAL TOOTH



Natural tooth



Tooth realized
with enamel and dentine
Bio Function



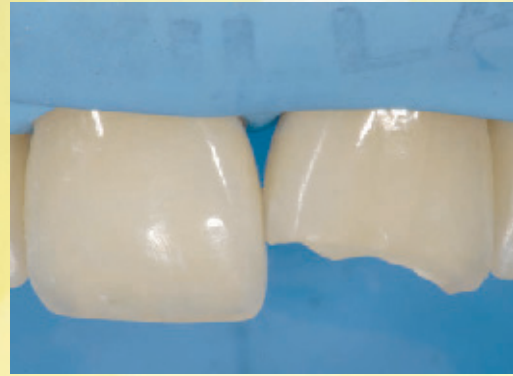
BIOCOMPATIBLE

The UDMA and TCDDMDMA innovative **formula is zero degree cytotoxicity and Bis-GMA free**, an organic compound that exhibits estrogenic properties in human body causing health problems. It contains **nanoparticles aggregated** that cannot penetrate the cell membrane, unlike free nanoparticles whose effect on health are still object of discussion.



FUNCTIONAL

The only composite enamel with mechanical and functional characteristics **similar to gold type III** and to **natural enamel**, that maintains the occlusal balance over time respecting the neuromuscular system and getting an excellent aesthetic integration. Composite shades subject to low abrasion that are comparable to natural enamel.



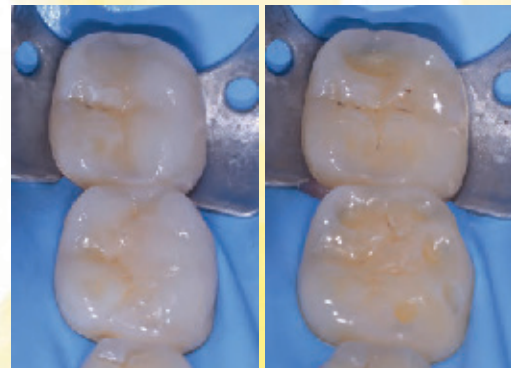
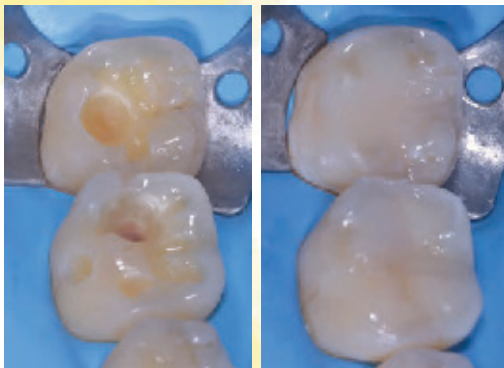
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EXCELLENT HANDLING

The new consistency allows an ideal handling and **guarantees an optimal sculpting** even at different room temperatures. The composite **does not stick** to the instrument, it is easily manipulated and keeps the given shape.

IDEAL POLISHABILITY

Formula with ultra-fine aggregated barium silicate glass ($0,3\mu$) for an **outstanding polishability and a high gloss retention over time**.



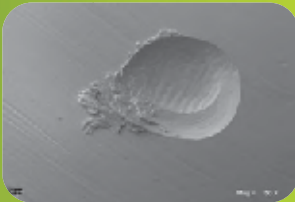
CLINICAL CASES BY DR. LORENZO VANINI
Direct restorations with dentine and enamel HRI Bio Function

ENA HRI[®] BIO FUNCTION

WEAR SURFACES

after 120.000 cycles by two-body wear test in a dual axis chewing simulator (University of Chieti - Prof. Camillo D'Arcangelo)

Gold



50x SEM images. The abrasion of Ena HRI Bio Function is similar to gold and therefore to the natural enamel.

Ena HRI Bio Function



50x SEM images. The surface of Ena HRI Bio Function appears abraded in a regular and uniform way.



BIO FUNCTION combines the characteristics of wear resistance similar to natural enamel and gold to the aesthetics of the modern restoration systems. Furthermore, it guarantees an excellent handling and a higher biocompatibility thanks to the innovative organic and inorganic components.

NEW BIOCOMPATIBLE COMPOSITE WITHOUT BIS-GMA

Completely biocompatible to guarantee a perfect integration in harmony with the human body without releasing any toxic substance. High stability resin matrix and absence of Bis-GMA and free nanoparticles in the powders generated by abrasion phenomenon that could be absorbed by the body. The REM images shows the particle clusters that are bigger than one micron.

WEAR COMPARATIVE ANALYSIS

	Depth (mm)	Volume (mm ³)
Natural enamel	0.216 (0.070)	0.404 (0.200)
Gold type III	0.219 (0.060)	0.328 (0.140)
Composite F* (enamel) Light cured with Laborlux**	0.459 (0.068)	1.017 (0.239)
Composite F* (enamel) Light cured with dentist's curing unit	0.464 (0.069)	0.972 (0.247)
Ena HRI Bio Function Light cured with dentist's curing unit	0.252 (0.059)	0.454 (0.057)
Ena HRI Bio Function Light cured with Laborlux**	0.212 (0.052)	0.375 (0.052)

*reference composite chosen after identified as the best among the ones tested during the preliminary phase
** curing unit for laboratory; it cures with heat (70°C)

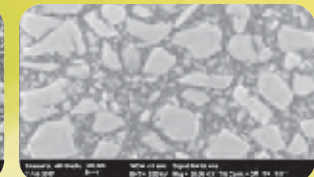
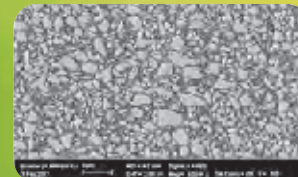
PHYSICAL DATA

	MPa
Vickers Hardness	685
Flexural Strength	150
Modulus of elasticity	11.600
Compressive Strength	460

Physical data maintained till 4 mm of depth with (minimum power 1000 mW) LED light curing unit

PARTICLE SIZE

REM images



ENA HRI® BIO FUNCTION



ENAMEL

ENA HRI BIO FUNCTION ENAMEL

EHRBF1	BF1 Enamel (low value)	5 g
EHRBF2	BF2 Enamel (medium value)	5 g
EHRBF3	BF3 Enamel (high value)	5 g



DENTINE

ENA HRI BIO FUNCTION DENTINE

EHRBD0	Dentine BD0	5 g
EHRBD0,5	Dentine BD0,5	5 g
EHRBD1	Dentine BD1 (A1)	5 g
EHRBD2	Dentine BD2 (A2)	5 g
EHRBD3	Dentine BD3 (A3)	5 g
EHRBD3,5	Dentine BD3,5 (A3,5)	5 g
EHRBD4	Dentine BD4 (A4)	5 g
EHRBD5	Dentine BD5	5 g
EHRBD6	Dentine BD6	5 g



ER3FB

ENA HRI BIO FUNCTION KIT 2,5 g

3 Bio Function Enamel: BF1, BF2, BF3



EHR3BB

ENA HRI BIO FUNCTION MINI KIT 3 COLOURS 2,5 g

2 Bio Function Dentine: BD2, BD3

1 Bio Function Enamel: BF3



EHR1Z

ENA HRI BIO FUNCTION DENTINE & ENAMEL KIT 5 g

3 Bio Function Enamel: BF1, BF2, BF3

9 Bio Function Dentine: BD0, BD0,5, BD1(A1), BD2(A2), BD3(A3), BD3,5 (A3,5), BD4(A4), BD5, BD6



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