

# HRi

## natural enamel CLONED in composite

a true dental innovation

1.62\*



\* If you work with Enamel Plus HRi you will know that its refractive index is 1.62, the same as of natural enamel. Beware of imitations!

estetica  
**M**  
GRUPPO  
MICERIUM

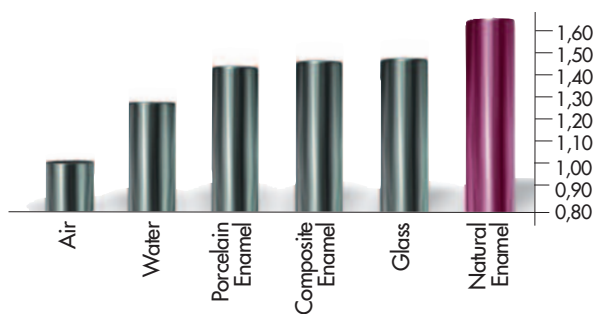
## THE PROBLEM

The refraction of composite & ceramic materials



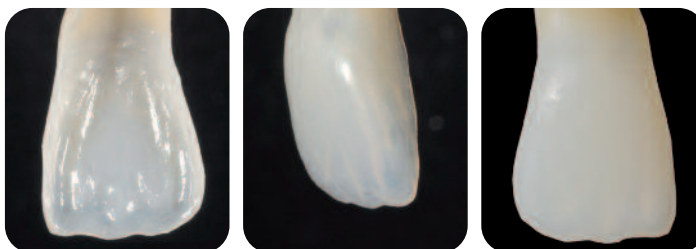
"Glass Effect" lowers the value of the restoration with a gray halo on the margin (dark line)

### RELATIVE REFRACTIVE INDEX OF LIGHT (n)



The relative refractive indexes of common materials measured at a temperature of 20°C and with a 589 nm wavelength light indicates the deviation of the light that crosses a translucent area (Vanini Mangani Klimovskaia "Conservative Restoration of Anterior Teeth" Acme 2005)

### HRi: THE TRUE ENAMEL



HRi Enamel veneers showing natural effects

Different thicknesses of Enamel plus HRi change in shade in the same manner as Natural Enamel would in the same thickness.



Application of dentine and opalescent OBN



**UE1 low value** (amber)

**UE2 medium value**

**UE3 high value** (for children or bleached teeth)

# THE CHARACTERISTICS

## Characteristics & advantages

ENAMEL<sup>plus</sup> HRi

### OPERATING ADVANTAGES

- **Simplified Technique** with fewer shades: 1 or 2 dentine and 1 enamel are used for Basic Technique
- **Master Technique** Additional shades available for opalescence, intensive and characterization (The 5 colour dimensions of teeth by Dr. Lorenzo Vanini)
- **HRi is Ideal for dentists** in direct restoration. Same composite is used for indirect restoration in **laboratory**.



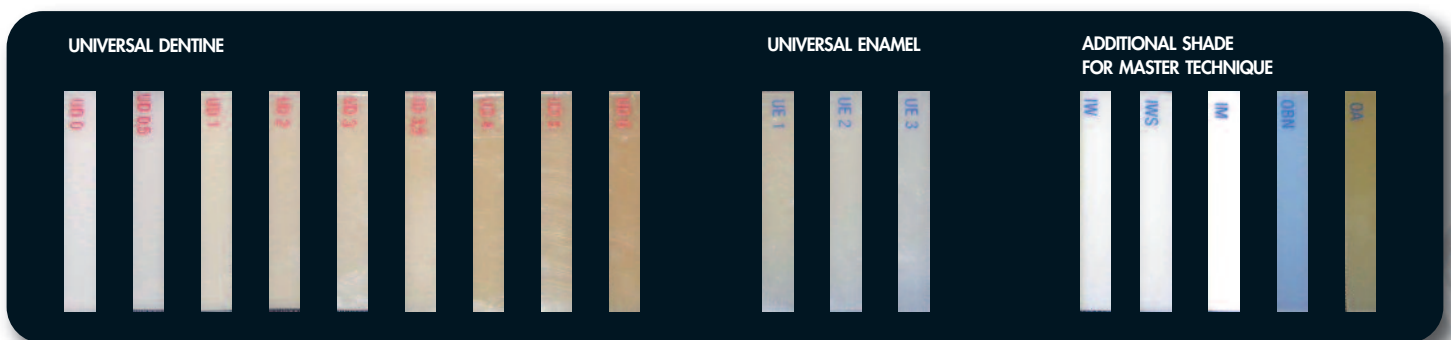
The HRi project has been devised from Dr. L. Vanini and developed in collaboration with Dr. T. Niem (Patent Pending)

This project (HA-Project-Nr: 130/07-01) has received special funding from the State of Hessen, co-financed by funds of the European Union (European Social Fund - ESF) for scientific innovation and advancement.

### TECHNOLOGICAL ADVANTAGES

- **New dentine** with fluorescence and increased translucency calibrated to natural dentine
- **Ultra-light Dentine:** UD0 and UD 0,5 for bleached teeth
- **Characterization and intensive effect** created by intensive enamel (IW, IWVS, IW) and opalescent amber (OA)
- **Opalescent effect blue and amber created from HRi Enamel** (Transparency 30% until 0,8 mm); Opalescent shade OBN is used when increase of opalescent effect is required
- **Invisible margin thanks to high refraction index of universal enamel:** no "glass effect" lowering the value of the restoration

### COMPOSITE SHADE GUIDE



### ENAMEL PLUS HRi KIT



CHR15



CHR6



TENDER1H

Ref	Description	Q.ty
CHR15	<b>COMPLETE KIT ENAMEL PLUS HRi for MASTER TECHNIQUE</b> including 15 syringes 5 g with support 9 dentine: UD0, UD0,5, UD1 (A1), UD2 (A2), UD3 (A3), UD3,5 (A3,5), UD4 (A4), UD5, UD6 3 universal enamel: UE1, UE2, UE3 3 intensive enamel: white (IW), white spot (IWVS), milky (IW)	15 x 5g
CHR11	<b>INTRO KIT ENAMEL PLUS HRi</b> including 11 syringes 5 g with support 7 dentine: UD0, UD1 (A1), UD2 (A2), UD3 (A3), UD4 (A4), UD5, UD6 3 universal enamel: UE1, UE2, UE3 1 intensive enamel: intensive white spot (IWVS)	11 x 5g
CHR6	<b>TRIAL KIT ENAMEL PLUS HRi for BASIC TECHNIQUE</b> including 6 syringes 2,5 g with support 4 dentine: UD1 (A1), UD2 (A2), UD3 (A3), UD4 (A4) 2 universal enamel: UE2, UE3	6 x 2,5g
TENDER1H	<b>INTRODUCTORY KIT ENAMEL PLUS HRi TENDER for laboratory</b> including: Tender: T2, T3, T4, T5, MW, MO, MY Dentine HRi: UD2 (A2), UD3 (A3), UD4 (A4), UD5 Universal enamel HRi: UE1, UE2, UE3 Intensive enamel: Intensive White Spot (IWVS) Opalescent enamel OBN Paste opaque: light, clear Tender bond metal primer Temp Chips retentions: standard, micro Temp Chips adhesive	7 x 2,5g 4 x 2,5g 3 x 2,5g 1 x 2,5g 1 x 2,5g 2 x 3g 1 x 2,5ml 2 x 10g 1 x 20 ml



# THE CASES

## Clinical case with HRi

ENAMEL<sup>plus</sup> HRi

by Dr. Lorenzo Vanini

**CLASS IV RESTORATION** USING ENAMEL PLUS HRi, DENTINE, INTENSIVE AND ENAMEL



**DIASTEMA CLOSURE** USING ONE SHADE OF ENAMEL PLUS HRi UNIVERSAL ENAMEL



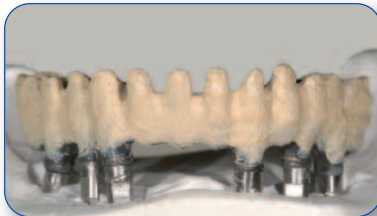
**DIRECT & INDIRECT POSTERIOR**



**PROSTHESIS ON IMPLANTS**



**PRESSING TECHNIQUE** WITH TENDER FLASK

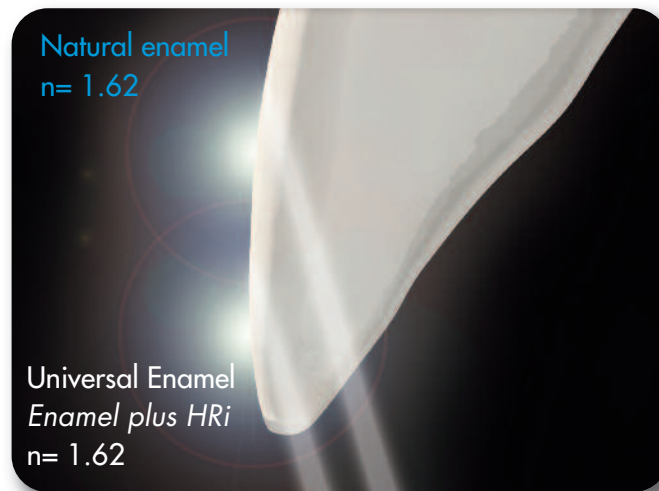


Laboratory case by Mr. D. Rondoni

# THE SOLUTION

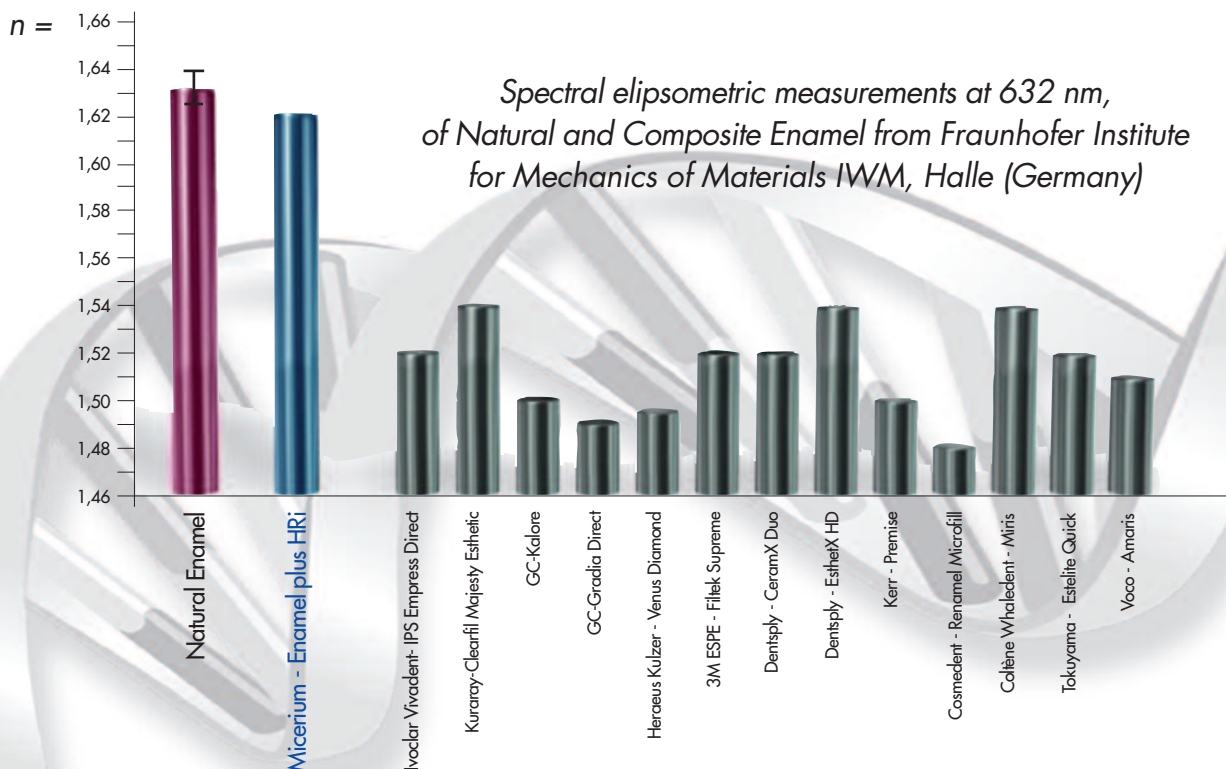
ENAMEL<sup>plus</sup>  HRi

... the same refractive index as natural enamel

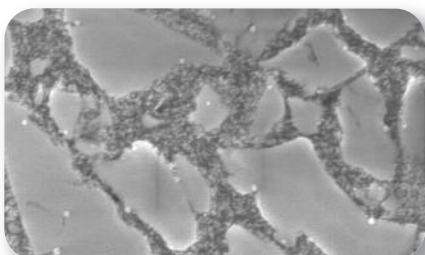


Invisible margins, reproducing with **HRi** the same thickness of the natural enamel

## RELATIVE REFRACTIVE INDEX



## NANOTECHNOLOGY REM



### • Composition FILLING (80% WEIGHT - 63% VOLUME)

- Surface treated nano zirconium oxide with high refractive index (12% in weight)
- New type of filling glass with high refractive index (68% in weight)

### • Ideal physical data for every type of direct or indirect restoration

- Vickers Hardness 700 MPa
- Modulus of elasticity 14.500 MPa
- Flexural Strength 170 MPa
- Compressive strength 450 MPa
- High radiopacity 600% Al



## ENAMEL PLUS SHINY POLISHING SYSTEM



**Finishing and polishing** with diamond rubber point, diamond paste 3 $\mu$  and 1 $\mu$  with brushes, aluminium oxide with felt.

## ENAMEL PLUS HRi FLOW<sup>HF</sup> - ENA CEM<sup>HF</sup>



**New highly filled fluid composite** medium viscosity, available dual as **Ena Cem<sup>HF</sup>** (for multipurpose luting & core build up) and light curing as **Flow<sup>HF</sup> HRi** (as liner). High physical properties and without bubbles.



## ENA POST 10% & 2% GLASS FIBER POST



Aesthetic: fluorescent and dentine colour  
Functional: same elasticity of dentine  
Perfectly integrated with the tooth, cement and restorative material: the only post with silanized fibers embedded in the same resin of restorative material (Enamel plus HRi)

## ENAMEL PLUS TEMP



### Temporary Resin for aesthetic temporary crown and bridge

The opacity and fluorescence of the dentine bodies, combined with the natural translucency of the enamel allows Enamel Plus Temp a harmonious relationship which perfectly matches the relationship of these layers within the natural tooth.

## TENDER PINK



**Pink Light Curing Composite** is the most innovative system to reproduce the gingival tissue in dental office and laboratory. **4 shades:** Dark, Light, Orange, Transparent, **3 Stain:** Blue, White and Red, **1 Flow** and **1 Opaque**

## ENA HEAT



### Composite Heating conditioner

ENA HEAT 110-240V  
50-60 Hz, 500mA  
Allows to use composite at the ideal temperature of 39°C for mouldation and 55°C for cementation