

NEW ERA OF DESIGN CAD/CAM BLOCKS

edelweiss **T-Block**

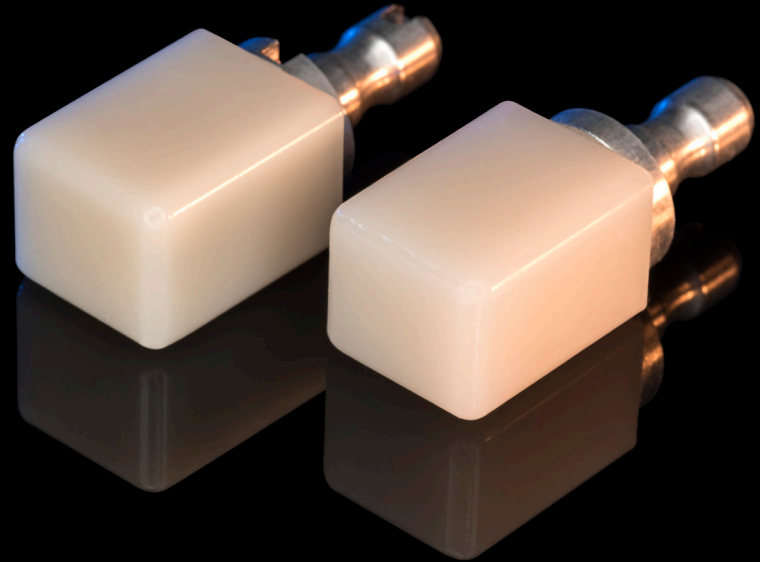
edelweiss **C-Block**

INTRODUCTION

edelweiss dentistry presents a breakthrough in the fabrication of CAD/CAM materials. Through a process of laser sintering and vitrification, edelweiss has developed state of the art CAD/CAM blocks. Through this process, the finished product consists of a single glass-phase embedded in a resin matrix. As a result, the esthetic properties are similar to that of feldspathic glass ceramic without having the brittleness of pure ceramics.

The base material of the edelweiss block is glass, in which crystals are joined by controlled laser sintering. The edelweiss CAD/CAM block is mainly composed of silica and barium glass with a very small portion of resin, almost combining the added advantages of ceramic and polymer materials into one block.

The addition of zinc oxide nanoparticles and fluoride provides antibacterial properties, a unique feature of the edelweiss block. The strength and optical properties are similar to that of ceramics but maintaining the flexibility and repairability of polymer based materials.



KEY FEATURES

- Glass as a single phase for esthetics
- Resin for elasticity
- Silica glass plus Aluminium oxide for compressive strength
- ZnO and F⁻ for biocompatibility

INDICATIONS

- Veneers
- Thin Veneers
- Occlusal Veneers
- Inlays, Onlays
- Partial Crowns
- Anterior / Posterior Crowns

ADVANTAGES

- Esthetically superior, lifelike appearance.
- Ultrafine glass micro-structure combines high strength with permanent high gloss.
- Simple cementation procedure with proven perfect seal.
- Biocompatible.
- Shorter milling time.
- Kinder to the milling burs.
- No additional firing required, simply polish and cement.
- Cost saving, faster processing time reduces chairside time.

TECHNICAL DATA

Flexural Strength	200 MPa
Compressive Strength	550 GPa
Flexural Modulus	20 GPa
Surface Hardness	100 HV

(Source: Technical data from manufacturers documentation)

ELEMENTAL ANALYSIS

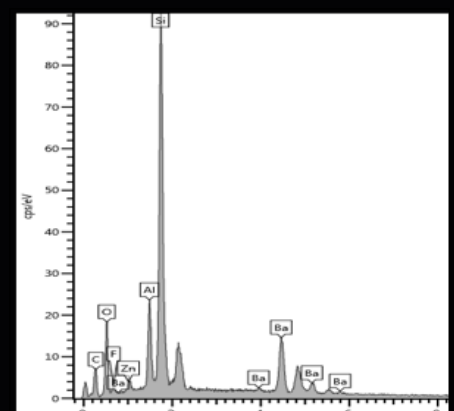
of edelweiss CAD/CAM Block

The composition of edelweiss CAD/CAM Blocks are mainly barium/silicate glass, zinc oxide nanoparticles, aluminium oxide and fluoride. Barium silicate glass ensures adequate bonding to the tooth structure using the edelweiss bonding system.

The addition of zinc oxide nanoparticles provides antibacterial proper-

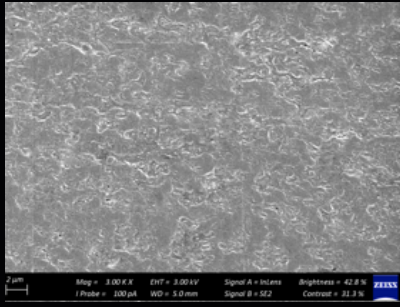
ties preventing any plaque accumulation on the surface of the material. Fluoride enables possible hydroxyapatite regeneration if required.

The addition of ZnO and F⁻ is unique to the edelweiss CAD/CAM Blocks. Aluminium oxide provides additional strength and improves the optical properties of the CAD/CAM block.



EDELWEISS SEM COMPARISON

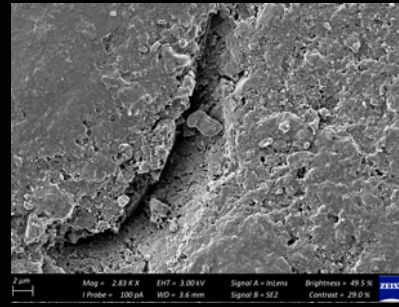
edelweiss



The edelweiss CAD/CAM Block shows a complete homogeneous fusion of glass particles to form a single phase unit. There is a complete absence of voids or defects on the surface structure.

(Mag= 3.00KX)

Product B



The SEM of the Product B CAD/CAM Block shows an inhomogeneous surface structure possibly due to it being a composite/ceramic hybrid. Several voids and cracks appear on the surface.

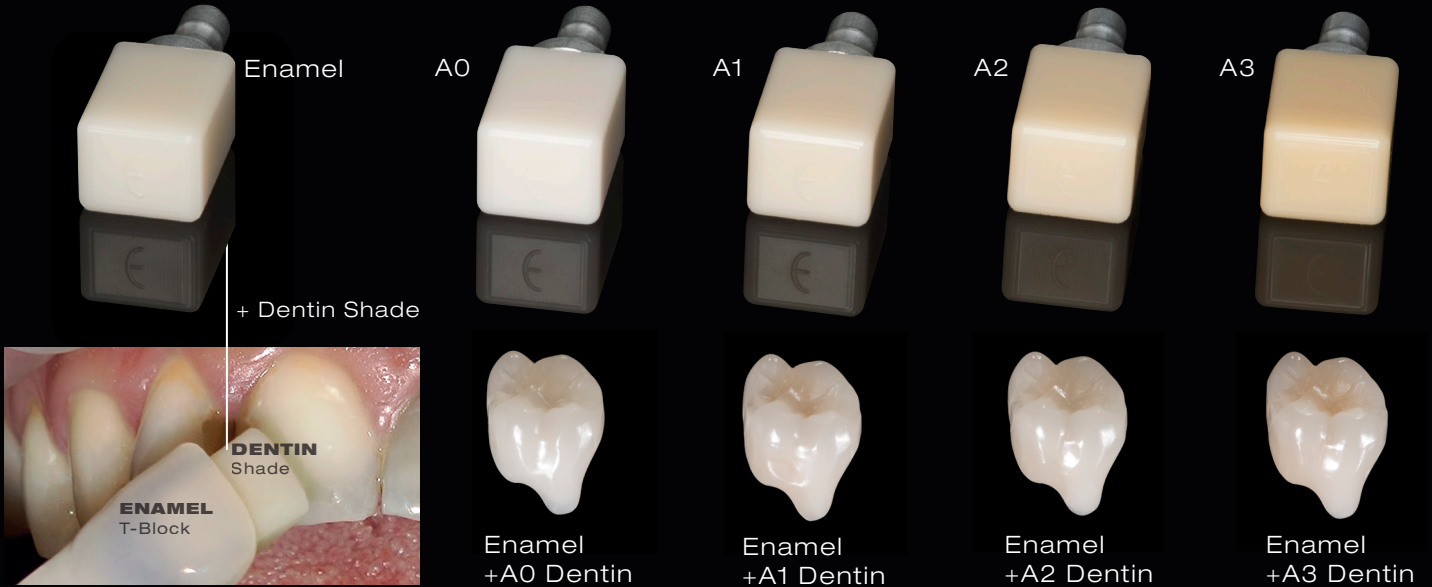
(Mag= 2.83KX)

SEM done by Prof. Lydia-Marie Joubert (PhD, MPhil), Central Analytical Facilities, University of Stellenbosch, South Africa
All Rights Reserved. edelweiss dentistry products gmbh • Austria.

PRODUCT RANGE & SHADING

edelweiss **T-Block**
Translucent Enamel Block

edelweiss **C-Block**
Chroma Block



YESTERDAY

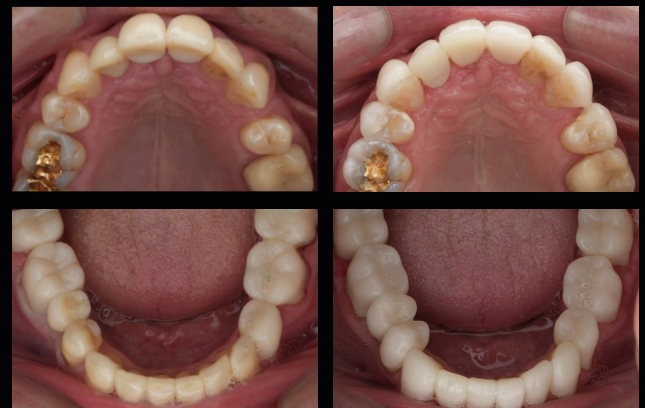


Patient presented with defective restorations and compromised esthetics and function. The crowns and veneers were milled using edelweiss CAD/CAM T Blocks and cemented with edelweiss A0 composite.

TODAY



Because of the translucent nature of the edelweiss T Blocks, the restorations blended in with the shade and vitality of the natural surroundings whilst using the least invasive method of restoring the teeth.



edelweiss dentistry products gmbh • Austria
office@edelweiss-dentistry.com
www.edelweiss-dentistry.com



#820061 / 2020-10

edelweiss dentistry ® and the edelweiss Logo ® are registered trademarks of edelweiss dentistry products gmbh • Austria

© 2020 edelweiss dentistry products gmbh • Austria. All material contained in this brochure are the property of edelweiss dentistry products gmbh • Austria. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, without the prior written permission of the edelweiss dentistry products gmbh • Austria. All Rights Reserved.