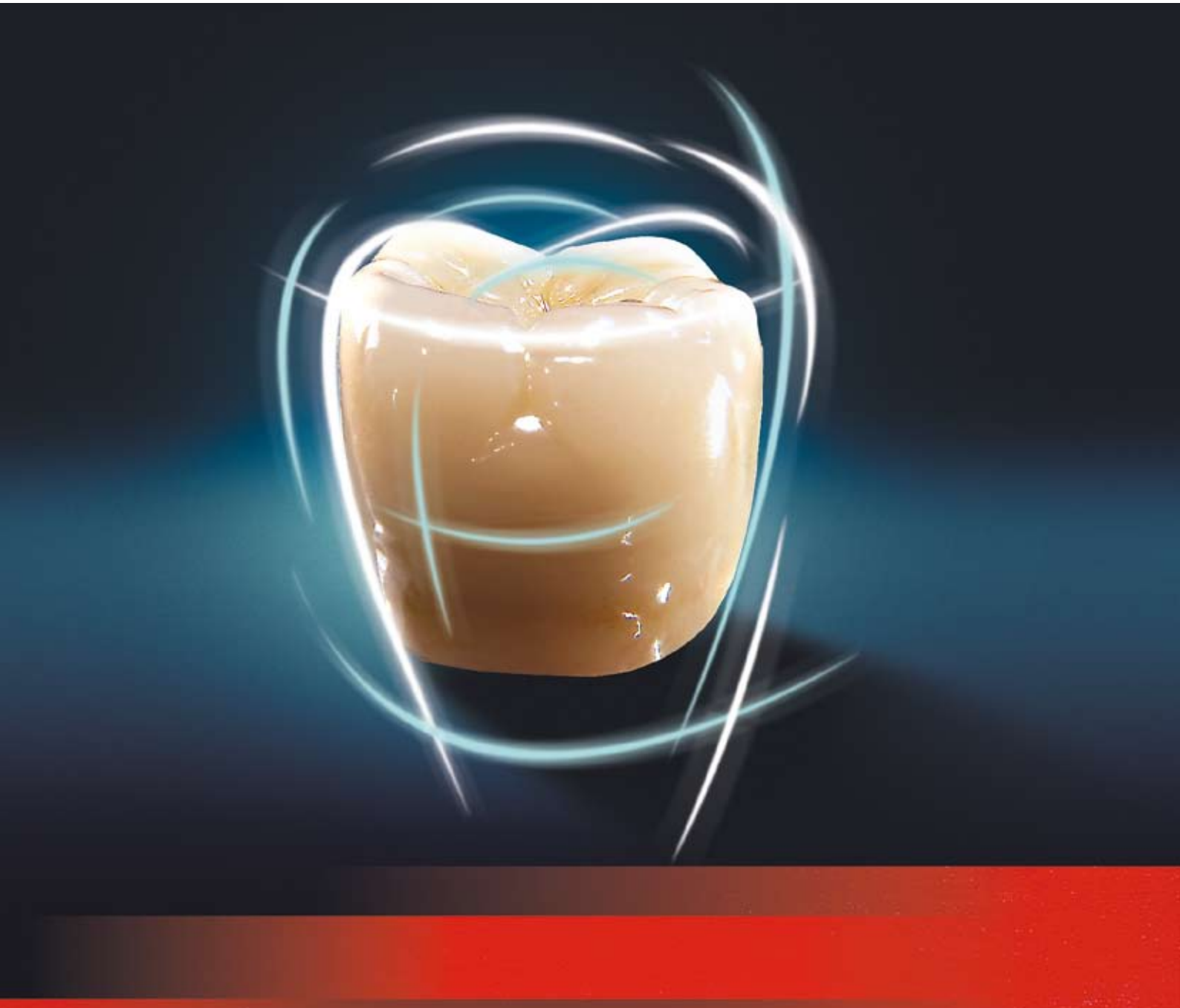
Candulor
KunstZahnWerk

Condyloform® II NFC



The new dimension in posterior teeth

www.candulor.com

The new Condyloform® II NFC

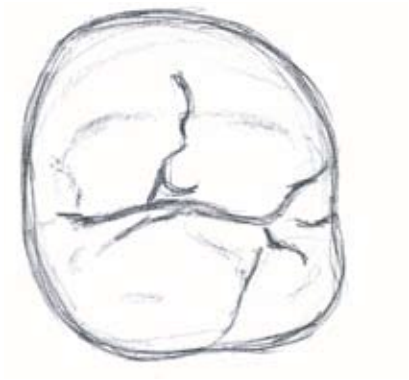
"At Candulor we have a company tradition which places the aim of creating a physiologically natural overall impression at the centre of all innovations in the area of prosthetics. This means that the denture should not be recognizable as such.

Our goal was to imitate nature as perfectly as possible with artificially produced means. As we soon discovered, this was no easy task. But ultimately, the long period of development was worth it.

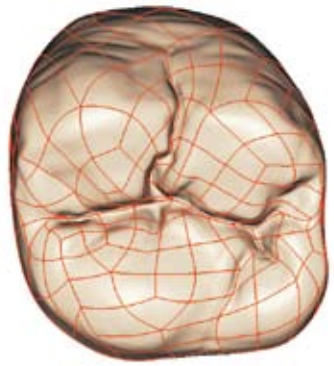
Condyloform® II NFC is the symbiosis of top functionality and aesthetics to suit the age of the patient. Once again, the result demonstrates the power of innovation in dental prosthetics and proves that the direction which Candulor has maintained for generations is the right one."

Max Sturm, Managing Director

The development of Condyloform® II NFC



From the first hand sketches ...



... to the computer design ...

... and finally the actual tooth.

The prime goal was to achieve a physiologically natural overall impression as well as optimal functionality. A denture must be tailored to fit the patient and should not be instantly recognizable as a prosthesis. The functional and anatomical characteristics of the teeth and an aesthetic appearance which suits the age of the patient are major factors in a top-quality denture.

The example to follow and at the same time the benchmark for the finished product is nature itself. Our long and fruitful collaboration with science is one of the success factors in Candulor system prosthetics. Here again, the new tooth mould was developed under the direction of Prof. Dr. Sandro Palla (University of Zurich). The team of experts in Candulor's product development translated this work into an optimal product.

The result, Condyloform® II NFC, is impressive and can be summarised in 4 main features:

- **Functional occlusal design**
- **Aesthetic tooth mould**
- **Abrasion-resistant NFC material**
- **Universal indication**

Highly functional occlusal design

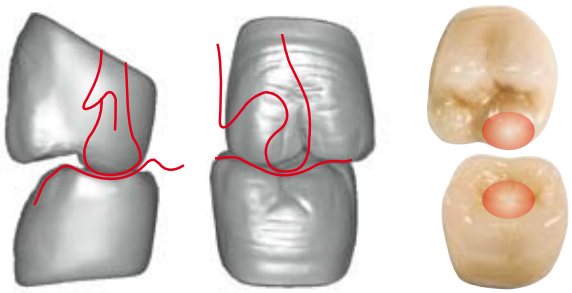
Condyloform® II NFC offers anatomically optimised occlusion alignment with natural, morphological surfaces to suit the age of the patient. The tooth moulds are based on average articulation values, with the proven mortar and pestle system according to Prof. Dr. Gerber integrated into the functional occlusal surfaces. This produces optimal functional mastication stability as the maxillary palatal cusps occlude into the central fissures of the opposing mandibular teeth.

This newly developed tooth is not only ideally suited to full dentures but can also be used for implant, partial and combination dentures. This is thanks to its natural tooth dimensions and the functional design of the tooth body.

Any construction elements required can be hidden for greater aesthetic and cosmetic effect. The voluminous cervical section of these moulds makes them suitable for most situations in the area of combination dentures and enables them to fit perfectly into any insertion gap.

Mortar and pestle principle

Prof. Dr. Albert Gerber discovered the functional relationship between the shape of the temporomandibular joint and tooth shapes, and went on to develop the Condyloform® tooth. In accordance with Prof. Dr. Gerber's condylar theory, the glenoid fossae and the condyles fit together like a mortar and pestle.
In the case of Condyloform® posteriors, the palatal cusps of the uppers and the occlusal surfaces of the lowers are modelled on this mortar and pestle principle.



NFC – NanoFilledComposite®

The NFC material is a nanofilled composite. This is a new and innovative generation of denture tooth material which offers major benefits. The material is based on a urethane dimethacrylate matrix with organic fillers.

In a large number of wear tests at different universities this material has shown significantly better abrasion values than most denture tooth materials available on the market.

The previous results of clinical studies also confirm the wear measurements obtained in the laboratory. In addition, a very natural brilliance and exceptional wear comfort are characteristic of this material.

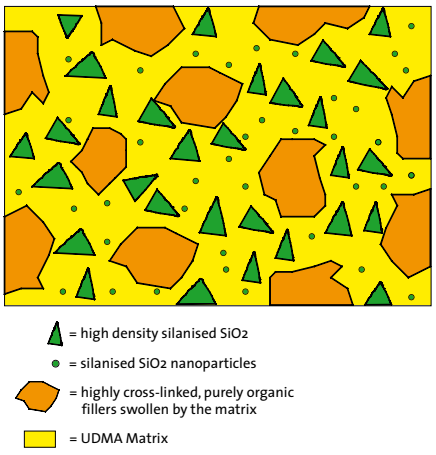
NFC characteristics

Thanks to the balanced combination of fillers it was possible to achieve material characteristics comparable to those of modern crown bridge and filling materials. In addition to a high degree of hardness (> HV 350) the composite possesses outstanding physical properties which meet the demands of modern prosthetic dentistry.

The use of a special organic filler meant that the food colouring and plaque affinity of the NFC material could be reduced to the level of PMMA and porcelain teeth.

The sophisticated process of production, silanisation and swelling applied to these homogeneously distributed fillers resulted in material isotropy with a monolith-like structure.

Material description: Condyloform® II NFC



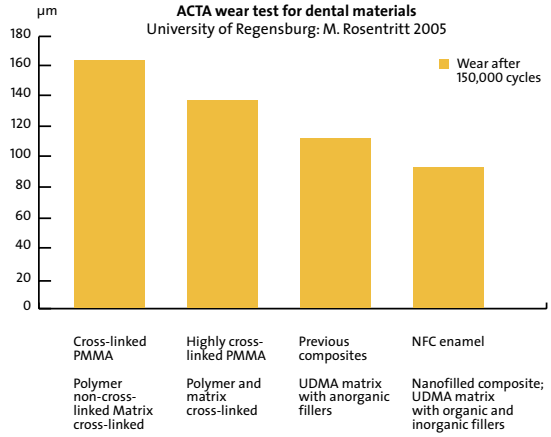
Abrasion resistance

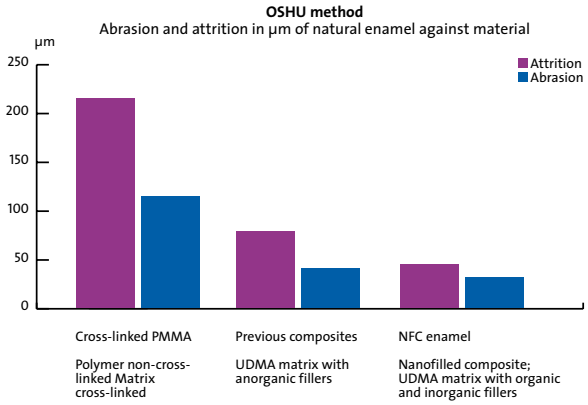
The great advantage of this material is its outstanding wear performance with significantly lower abrasion losses than all denture tooth materials used to date. This is corroborated by a wide range of abrasion measurement methods as well as the results of clinical studies at several universities. (Source: Universities of Innsbruck, Regensburg)

All other physical properties such as
- **Plaque resistance**
- **Colour stability**
- **Resistance to oral conditions**

meet the high quality standards of all Candulor products as well as complying with the current industry standards.

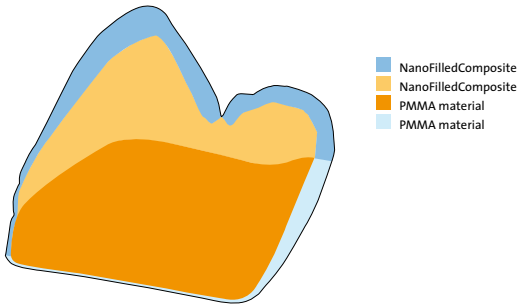
In order to ensure good bonding with the denture base material, the entire basal area of the tooth is made of PMMA material.





Layering

Special layering in the area of the fissure gives the central fissures a natural depth impression.



Transparency / translucence

An equally important benefit of the NFC material is its natural transparency and translucence. This gives a stunning, life-like appearance.

Both the homogeneity and brilliance of the NFC material are the result of all constituent materials having a harmonised index of refraction and the grain size distribution of the fillers used which extend from the nanometre to the micrometre range.

These striking aesthetics are achieved by the 4 layers and natural layering.

Implant dentures

Work on implant superstructures means that a tooth line has to meet special requirements.
In the case of Condyloform® II NFC it is the dimensions which make the tooth ideally suited for concealing attachments.

As with every successful denture, functional stability is also an important factor with implant work in particular in order to achieve uniform loading of the implants.

This is obtained by the proven principle of lingualised occlusion.

Higher chewing forces are exerted on the denture teeth in the case of implant-supported prostheses.
The special abrasion-resistant NFC® material was developed to counteract premature wear of the teeth and the associated loss of vertical dimension, and is now being used for the first time for Condyloform® II NFC.

ZTM P. J. Obwegeser

Partial and combination dentures

ZTM A. Ferilli

The consequence of improvements in preventive dentistry has been an increase in the proportion of partial and combination dentures.

Condyloform® II NFC also meets these demands:

• Tooth anatomy
The size and shape of the tooth are especially well-suited to concealing attachment elements. The functional occlusal design is based on the morphology of natural teeth.

• Abrasion resistance
When using Condyloform® II NFC in conjunction with natural teeth, the newly developed NFC material is the perfect choice.

• Stunning aesthetics
The material's four layers and its opalescence make Condyloform® II NFC ideal in combination with natural teeth as well as crown bridge work.

Full dentures

Analysis of mandibular movement, in particular studies of the shape of the temporomandibular joint and how it moves, gave rise to the condylar theory according to Professor Dr. Albert Gerber (University of Zurich).

The new design of the Condyloform® II NFC teeth in both their outer shape and occlusal surfaces provides benefits in the form of easier set-up. This is particularly true in cases involving cross bite occlusion. The slightly convex buccal surfaces ensure better cheek contact. Special emphasis was placed on the design of the tongue space in terms of both the lingual and the palatal parts of the tooth.

The autonomous chewing stability of the individual teeth facilitates mastication and provides enhanced wear comfort for the patient.

ZT M. Maier

Lingualised occlusion

The marked shift of the mandibular fossae from the centre of the tooth towards lingual and the abraded buccal cusps contribute to positional stability.

Autonomous chewing stability

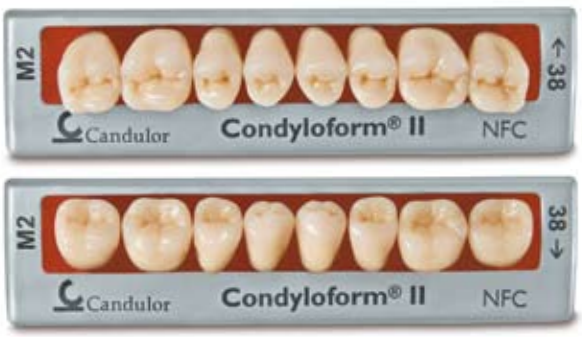
A tooth has autonomous chewing stability when the occlusal forces which arise in functional close contact centre the denture in the jaw, in other words when virtually no tilting and displacing forces occur during mastication.

Prosthetics courses

Candulor offers beginners' and advanced courses as well as master classes on the use of Condyloform® II NFC teeth with the integrated mortar and pestle principle.

Moulds

Condyloform® II NFC posterior teeth are available in 3 upper and 3 lower moulds.



Shades

Condyloform® II NFC upper and lower posteriors are available in the following shades:

• 16 Candulor shades, selection using the Candulor CT Porcelain shade guide

• 16 A–D and 2 bleach shades (BL 2 + BL 4), using the A–D shade guide.

PhysioStar® NFC anterior tooth line

The PhysioStar® NFC anterior tooth line provides the ideal combination with Condyloform® II NFC due to its unique layering and the prosthetically optimised tooth moulds.

Use of the same materials makes the anterior and posterior teeth optimally matched in shade, thus creating aesthetic harmony in the patient's mouth.

Reconstruction method for missing, damaged and/or abraded teeth using facial analysis software.
www.zrs-wiedmann.com

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