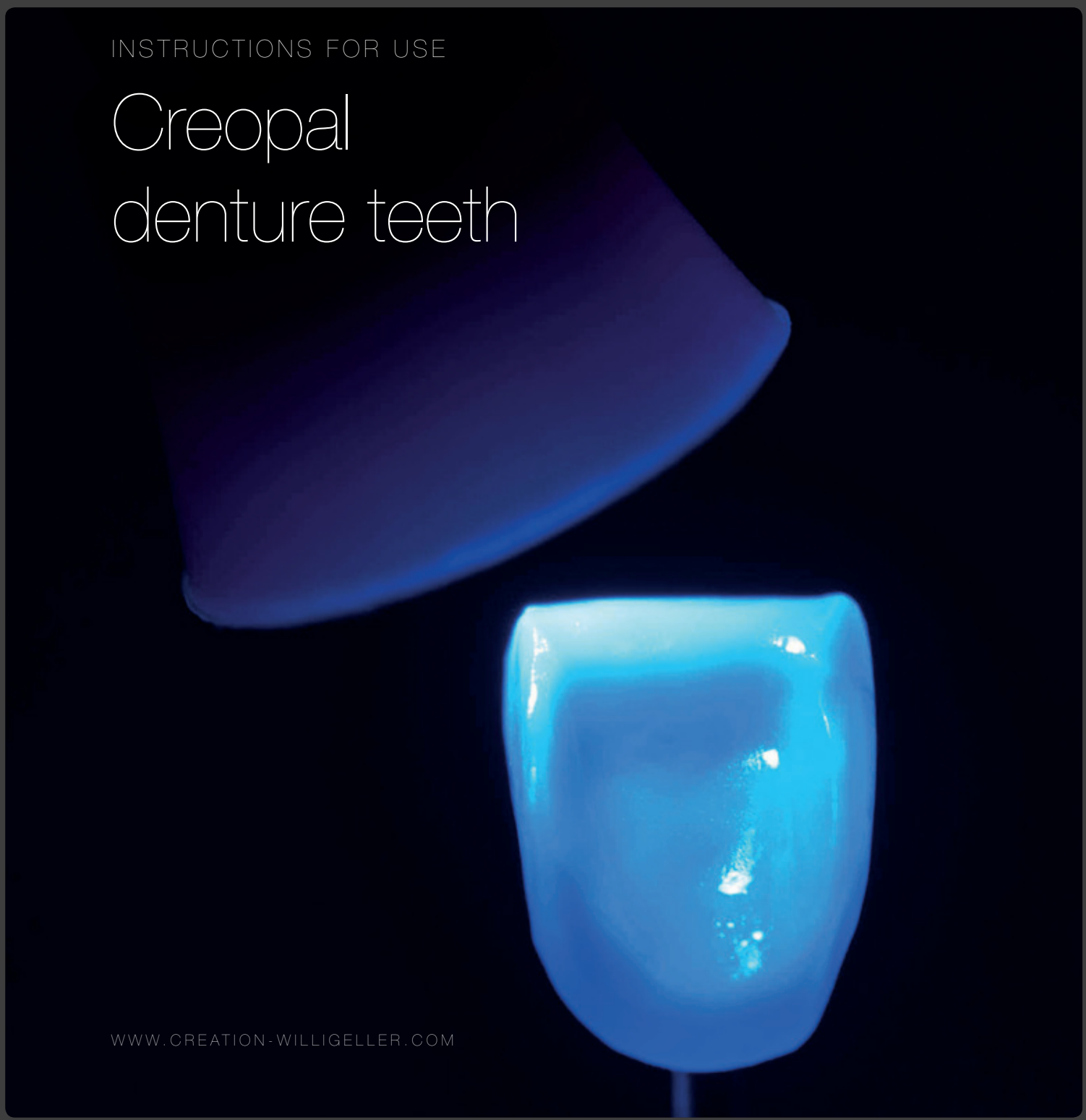
WILLI GELLER Creation

SIMPLY BRILLIANT

INSTRUCTIONS FOR USE

Creopal denture teeth



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WILLI GELLER
Creopal

Creopal – exclusive range of composite teeth: multifaceted play of colour and form

High aesthetics, stability and efficiency: Creopal is a modern system of composite teeth **with enhanced strength values** – the result of inter-cultural exchange between Asian and European dental technicians. Thus the gnathology and the surface texture of the anterior teeth were designed in a Willi Geller project lasting several years, while the posterior teeth were developed in parallel by Yasuhiro Odanaka, among others.

The ten front and four side tooth shapes for the maxilla and mandible are perfectly coordinated with each other. Particularly impressive features are their **natural morphology and surface texture** as well as an extraordinary gloss. As a result of the balanced filler content, the highly compacted composite teeth display **high abrasion and flexural strength**.

Minimal layer thickness – maximum impact
The exclusive range of artificial teeth also includes multifunctional composite facets for the anterior and posterior region. These „**Creopal Shell**“, despite their extremely thin layer depth, achieve the same colour effect and the same brightness value as fully anatomical teeth – **creating a masterful impact**!

Individually adaptable and multiple indications: The Creopal system is available in 16 Vita and two bleach tooth shades for optimal colour adaptation with acrylic and ceramic materials, whilst the Creopal Shell are available in fewer colours. The prosthetic teeth produced by a four-layer process and the Creopal Shell (two-layer method) are suitable for partial, combination and implant as well as complete prosthetics and as a set-up or mock-up for aesthetic try-ins and backward planning. The slightly rectangular tooth forms can be perfectly **individualised and combined** – without any aesthetic loss.

Creopal and Creopal Shell: economical and aesthetic down to the smallest detail!

Advantages of Creopal and Creopal Shell
- Four-layer technology enables production of a natural denture tooth
- Two-layer technology with enhanced opalescence ensures a natural appearance for composite facets
- The highly chromatic dentine cores with individually formed mamelon structures give a dynamic depth of colour
- Enhanced opalescent incisal parts give character without colour loss
- Interdental spaces allow for individual arrangements and make natural gingiva creation simpler
- Brilliant light conductivity due to naturally opalescent, fluorescent and translucent material
- The surface‘s special morphology means that the material naturally refracts light
- High degree of aesthetics with expressive forms; reduced, but extensively customisable range of shapes (low stock!)
- Prosthetic base stays in place due to high bond strength
- Smooth surface means there is no build-up of plaque
- Protection against wear caused by natural enemies

Set-up principles
- For all set-up concepts according to the laws of mechanical teeth and joint control
- Can be set up either tooth-to-tooth or tooth-to-two-teeth
- Balanced occlusion

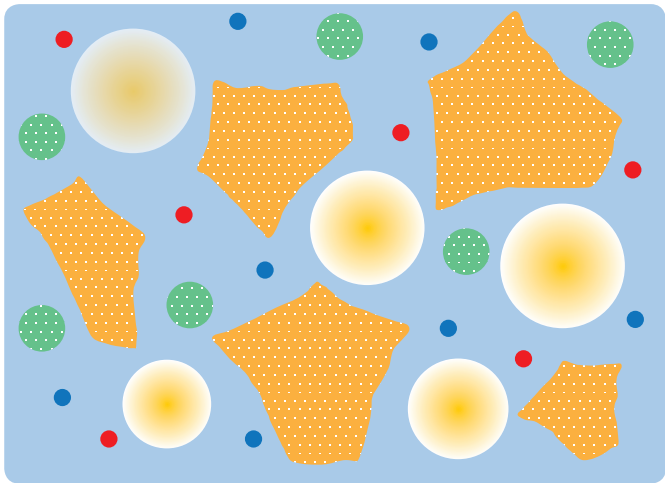
Indicators for Creopal and Creopal Shell
Planning and temporary measures
- Set-up for backward planning in case of complex restorations
- Mock-up for short-term temporary measures
- Long-term temporary measures (single crowns and bridges)
- Jacket crowns

Combined technology
- Telescopic work
- Bar restorations
- Implant work
- Partial dentures

Full prosthetics

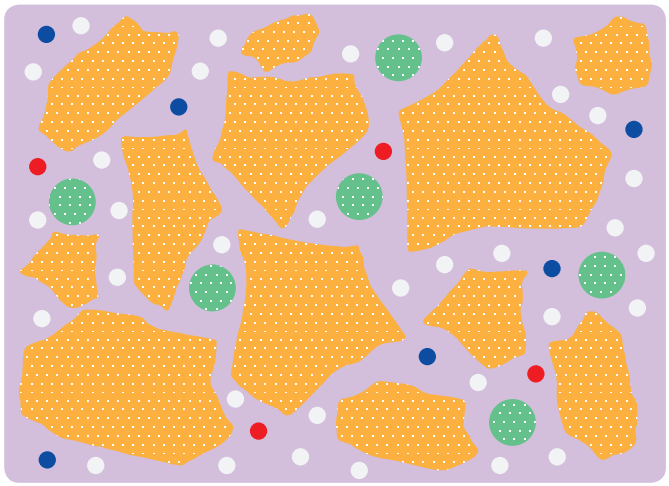
Material science

Description of material | Enamel of Anterior Teeth



- PMMA cluster
- Organic-Inorganic filler complex
- Nano Porous Silica
- Opalescence filler 1
- Opalescence filler 2
- PMMA resin matrix

Description of material | Enamel of Posterior Teeth



- Organic-Inorganic filler complex
- Nano Porous Silica
- Opalescence filler 1
- Opalescence filler 2
- Silica nanoparticle
- UDMA resin matrix

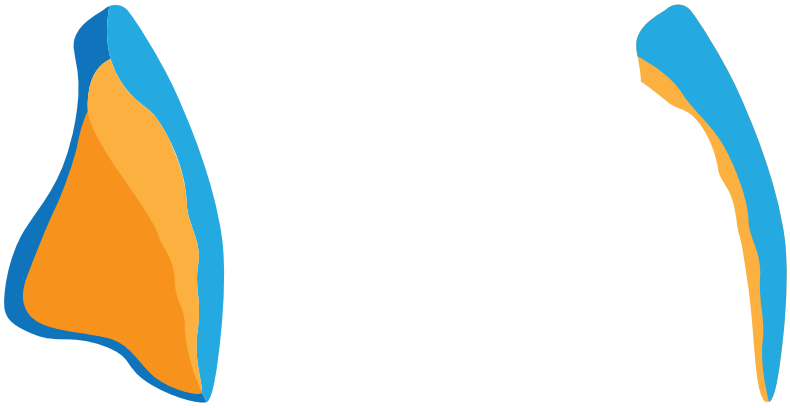
The enamel layer on Creopal front teeth is made from a PMMA matrix composite to provide exceptional esthetics and strength in the anterior region. Organic-inorganic filling complexes and nano porous silica improve the hardness and abrasion resistance of the front teeth, whilst two different opalescence fillers provide a natural opalescence.

To ensure high abrasion resistance in the posterior region, a UDMA matrix composite was chosen for the enamel of Creopal posterior teeth. Various fillers such as silica nano-particles offer increased hardness and less abrasion of the tooth enamel and a more natural opalescence.

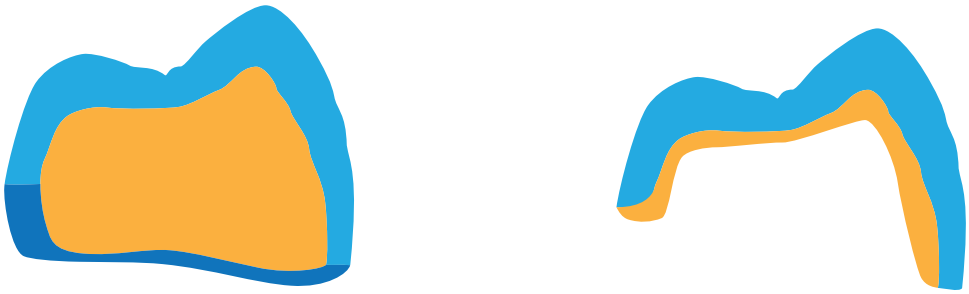
Layer structure

Layering scheme of Creopal and Creopal Shell

Anterior Teeth



Posterior Teeth



Enamel (Composite)

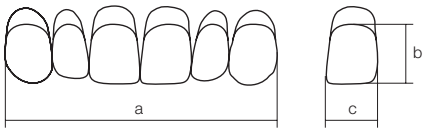
Dentine - (PMMA)

Neck - (PMMA)

Back Enamel (PMMA)

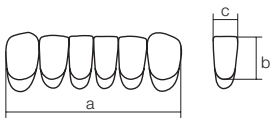
Form, specification of Creopal (full-contour)

1. Front above



Form no.:	Overall width (a) (Set with 6 teeth) (mm)	Central (c) incisor Width (mm)	Central (b) incisor Length (mm)
AU05	46,3	8,6	9,4
AU07	45,1	8,6	10,6
AU10	49,8	9,2	11,2
AU13	52,2	9,6	11,2
AU16	51,0	9,5	12,1
AU19	57,6	10,8	13,3

2. Front below



Form no.:	Overall width (a) (Set with 6 teeth) (mm)	Central (c) incisor Width (mm)	Central (b) incisor Length (mm)
AL07	33,8	4,7	10,6
AL10	37,7	5,3	10,6
AL13	40,2	5,6	11,3
AL16	42,0	6,0	11,3

3. Posterior maxilla

Form no.:	Overall width (a) (One quadrant, 4 teeth) (mm)	Buccal length (fu) of first premolar (mm)	Buccal length (fu) of first molar (mm)	Lingual length (eu) of first premolar (mm)	Lingual length (eu) of first molar (mm)
PU07	28,0	7,8	6,7	5,5	6,5
PU10	30,0	8,4	7,2	5,9	7,0
PU13	32,0	8,9	7,7	6,3	7,4
PU16	34,0	9,5	8,2	6,7	7,9

4. Posterior mandible

Form no.:	Overall width (b) (One quadrant, 4 teeth) (mm)	Buccal length (fl) of first premolar (mm)	Buccal length (fl) of first molar (mm)	Lingual length (el) of first premolar (mm)	Lingual length (el) of first molar (mm)
PL07	29,0	7,7	6,6	4,8	5,2
PL10	31,1	8,3	7,0	5,2	5,6
PL13	33,2	8,8	7,5	5,5	6,0
PL16	35,3	9,4	8,0	5,9	6,3

COLOURS

1. ANTERIOR
   A1, A2, A3, A3.5, A4, B1, B2, B3, B4, C1, C2, C3, C4, D2, D3, D4 (Vita® shade), FW5, FW2

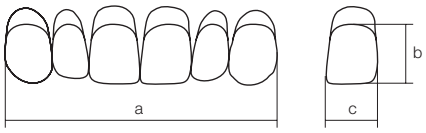
2. POSTERIOR
   A1, A2, A3, A3.5, A4, B1, B2, B3, B4, C1, C2, C3, C4, D2, D3, D4 (Vita® shade)

PORTFOLIO

Creopal (Anterior)
Creopal (Posterior)

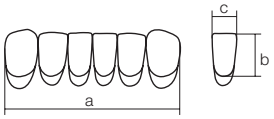
Form, specification of Creopal Shell

1. Front oben



Form no.:	Overall width (a) (Set with 6 teeth) (mm)	Central (c) incisor Width (mm)	Central (b) incisor Length (mm)
SAU10	50,7	9,3	11,2
SAU13	52,9	9,7	11,2
SAU16	51,1	9,5	12,1
SAU19	58,8	10,8	13,2

2. Front unten

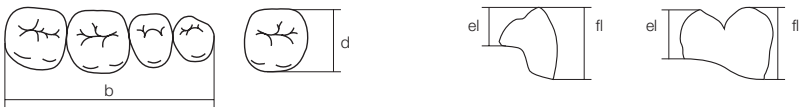


Form no.:	Overall width (a) (Set with 6 teeth) (mm)	Central (c) incisor Width (mm)	Central (b) incisor Length (mm)
SAL10	39,1	5,5	10,9
SAL13	41,0	5,6	11,3
SAL16	43,5	6,2	11,3

3. Posterior maxilla

Form no.:	Overall width (a) (One quadrant, 4 teeth) (mm)	Buccal length (fu) of first premolar (mm)	Buccal length (fu) of first molar (mm)	Lingual length (eu) of first premolar (mm)	Lingual length (eu) of first molar (mm)	Buccal-lingual (c) width of first molar (mm)
SPU10	30,4	8,5	8,4	4,3	5,4	10,7
SPU13	32,5	9,1	9,0	4,6	5,7	11,4
SPU16	34,5	9,7	9,5	4,9	6,1	12,0
SPU19	36,5	10,2	10,1	5,1	6,5	12,8

4. Posterior mandible



Form no.:	Overall width (b) (One quadrant, 4 teeth) (mm)	Buccal length (fl) of first premolar (mm)	Buccal length (fl) of first molar (mm)	Lingual length (el) of first premolar (mm)	Lingual length (el) of first molar (mm)	Buccal-lingual (c) width of first molar (mm)
SPL10	32,8	8,6	8,3	4,2	4,4	10,3
SPL13	35,0	9,2	8,9	4,5	4,7	10,9
SPL16	37,2	9,8	9,4	4,8	5,0	11,7
SPL19	39,4	10,4	10,0	5,1	5,3	12,5

COLOURS

1. ANTERIOR
   A1, A2, A3, A3.5, B1, B2, B3, FW5

2. POSTERIOR
   A1, A2, A3, A3.5, B1, B2, B3

PORTFOLIO

Creopal Shell (Anterior)
Creopal Shell (Posterior)

Creopal Primer

Use of Creopal Primer

Before applying Creopal Primer, the areas to be primed are blasted with aluminium oxide. The teeth or shells are then cleaned thoroughly. The primer is applied to the blasted plastic surfaces with a brush and then polymerised in a light-curing device (e.g. 3 minutes in a GC LABORLIGHT LV-III unit or 20 seconds in a GC STEPLIGHT SL-I). Please follow the instructions and read these carefully.

Note:

1) To achieve maximum bond strength, light curing must be fully completed. A lower light intensity may lead to weaker bonding.
2) During curing, use suitable eye protection against beams of light.

CAUTION

1. Before using Creopal Primer, read the usage instructions carefully and adhere to the processing recommendations at all times.
2. Mixing Creopal Primer with other products is not recommended.
3. Creopal Primer should be at room temperature during processing.

Instructions

Initial situation

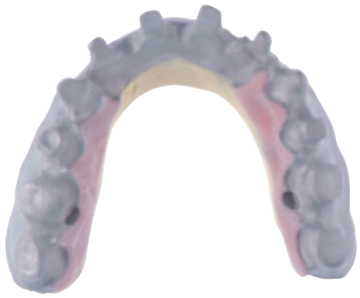
The initial situation is a split bar on 6 implants. To control friction and secure the correct fit, bar attachments were included.

Wax-up

A wax-up of the restoration is then fabricated. After the wax try-in in the patient's mouth and control of all functions, a silicon matrix of the situation is made. The metal in the segments that are not conditioned is blocked out with wax and block-out putty. Then the surface is sandblasted with 110 µ aluminum oxide (pressure: 2 bar). Afterwards the framework is thoroughly cleaned so that no contaminants such as grease residues, release agents etc. are present. The milled tertiary structure is then ready for opaques. The conditioned surface is then prepared for priming with metal primer.

Preparation of the tertiary structure

The shaped tertiary structure is manually constructed (modelled) from a non-precious metal. This model acts as a „wax-up" during the dual scan.



The metal is blocked out with wax and modelling clay on the segments which have not been conditioned. The surface is then blasted with 110 µm aluminium oxide at a pressure of 2 bar. The framework is then thoroughly cleaned so that no impurities such as fat residues, separating agents, etc. are left behind.

The shaped tertiary structure is now ready for opaquing. The conditioned surface is now ideally prepared for priming with the metal primer.

Instructions

Monitoring the adjusted Creopal and Creopal Shell

Before conditioning the Creopal and Creopal Shell, the fit of the teeth on the tertiary construction is checked. At this stage, it is still easy to make corrections on the composite teeth, thus ensuring a harmonious transition of the teeth to the tertiary framework.

Conditioning of Tertiary structure

The shaped tertiary structure is then e.g. conditioned with GC Metal Primer II. Add 2-3 drops of Metal Primer II into a glass or similar vessel. Apply a thin layer to the adhesive surface with the enclosed brush. Allow to dry and repeat if required. Please pay attention to, and read, the manufacturer‘s instructions. The incorporated retention attachment is provided with a thin wax layer to ensure that a safe exchange takes place.

Opaque Application

After priming the metal opaque (e.g. Gradia opaque) is applied to the tertiary structure in thin layers. If desired, retention pearls can also be applied. After every application of opaque the material must be thoroughly cured in the light curing device.

Conditioning of Creopal and Creopal Shell

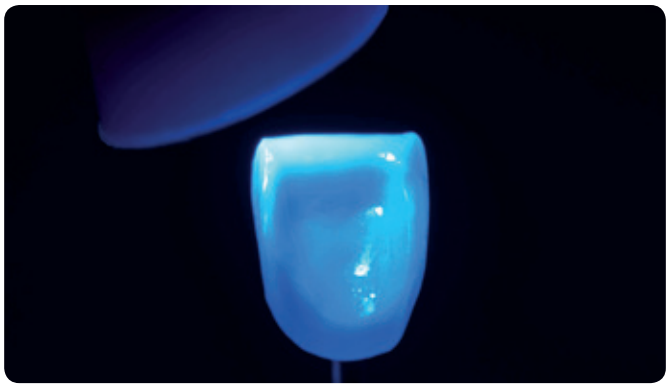
A crucial point is to properly prepare for priming. The Creopal and Creopal Shell are circularly sandblasted inside and outside with 250 µ aluminum oxide (pressure: 1 bar). The outer form is sandblasted only in the areas which will be in contact with the acrylic of the prosthesis. The teeth and shells are then thoroughly cleaned. In the picture you can see the significant difference between an untreated and a sandblasted facet.

Creopal Primer

After blasting the Creopal Primer is applied to the shells with a suitable brush. Please do not use old Primer for orders, always use fresh liquid!

Priming

Priming the prepared Creopal and Creopal Shell can also take place in the matrix if desired. The advantage of this version: All areas, both internal and external, can be readily accessed.



The Creopal Primer is then polymerised in a light curing device or beneath a UV lamp. The length of polymerisation should be found in the processing instructions for the Primer.
IMPORTANT: All areas that will later come into contact with PMMA or composite should be moistened.

Instructions

Fixing

The primed Creopal or Creopal Shell are fixed using tooth-coloured GC Unifast III. This tooth-coloured self-curing acrylic resin can also be applied with a brush.

Individualisation and Finalisation

Missing parts between the tertiary structure and the fixed Creopal and Creopal Shell are filed in with GC Gradia Gum and then tailored individually. Afterwards, the completed prosthetics are polymerised.

Completed work

Instructions

CREOPAL

INDICATIONS

1. For use as denture teeth in order to create combination dentures or full dentures.

CONTRAINDICATIONS FOR USE

1. Do not use this product on patients with increased sensitivity to methyl methacrylate or polymethylmethacrylate.
2. Do not use if it is known that the patient is allergic to product components.
3. In rare cases, the product can trigger allergies in people. If such a reaction occurs, please stop use and consult a doctor.

CREOPAL SHELL

This product is only intended for use by dental specialists in accordance with the indications.

INDICATIONS

1. For use as denture teeth in the production of correct full prosthetics, combination replacement of teeth and temporary measures.

CONTRAINDICATIONS FOR USE

1. Do not use this product on patients with increased sensitivity to methyl methacrylate or polymethylmethacrylate.
2. Do not use if it is known that the patient is allergic to product components.
3. In rare cases, the product can trigger allergies in people. If such a reaction occurs, please stop use and consult a doctor.

WARNING

1. When polishing denture teeth, it is recommended that a dust mask and safety goggles are worn.
2. The surfaces of Creopal and Creopal Shell should not be painted or sealed with cyanoacrylate adhesive.
3. Denture teeth do not make chemical bonds with denture plastic without primer. Creopal Primer must be used for a secure connection between the denture tooth and denture plastic.
4. Denture teeth become deformed at temperatures > 120 °C. Avoid exposing dentures to this temperature if possible.
5. Ground denture teeth must subsequently be polished.


WILLI GELLER
Creopal

WILLI GELLER Creation

SIMPLY BRILLIANT

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