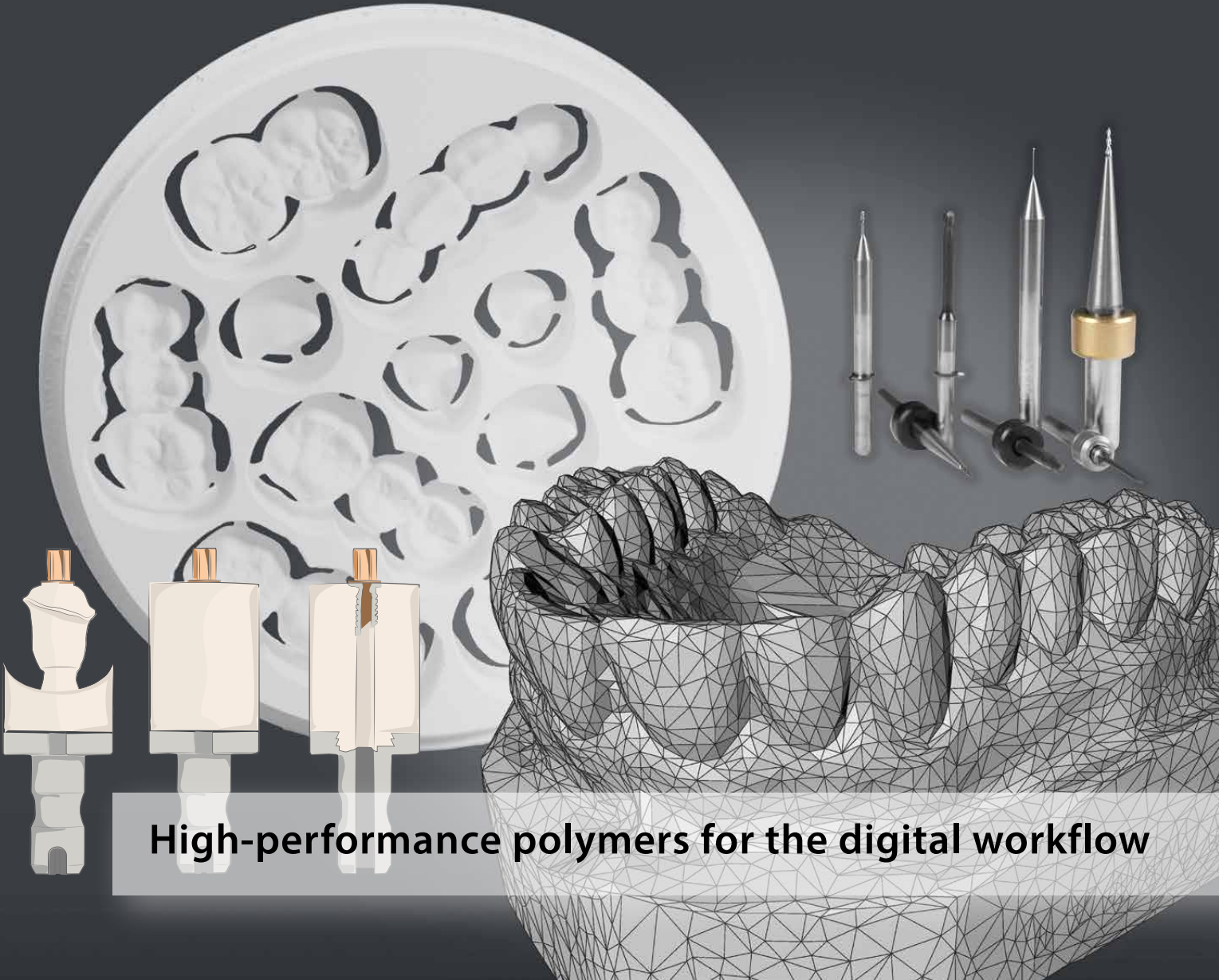


breCAM consumables



High-performance polymers for the digital workflow

breCAM consumables

Trend towards high performance polymers

Our research and development already led to these materials years ago, completely in line with our mission statement, which incorporates the values “capable, spirit of partnership and innovative”.

With these high-performance plastics, we have found the innovative way of providing patients with the best possible treatment from the very beginning, whilst simultaneously offering them success-oriented, efficient and capable solutions from a team consisting of a dentist and prosthetist.

Polymers offer significant advantages with regard to aesthetics, processing, cost effectiveness, longevity, patient acceptance and implant prosthetics. In a partnership between the patient and the dental team, with polymers it is a win-win situation for both sides.



Image: Lab. Od. Antonio Lazetera, Savona, Italy

Take advantage of our competence in the field of plastics and in digital processing:

- SMART Benefit from the advantages of digital processes in traditional technology with breCAM.wax
- CLEAR breCAM.splint is crystal clear and therefore invisible material for use in removable splints. An additional feature is the approved wearing time of up to 2 years.
- UNIVERSAL breCAM.monoCOM / breCAM.multiCOM enable you to increase the wearing time of high-quality temporary prostheses to two years and provide even better aesthetics.
- DEFINITIVE With breCAM.HIPC you have a universal genius at your disposal. Whether used as milled veneering or as a monolithic abutment, this material offers you the most elegant solution for a number of indications and for all framework materials (including BioHPP).
- PHYSIOLOGICAL breCAM.BioHPP takes you to the bionic age. The physiological properties of this framework material are only surpassed by nature itself. The modulus of elasticity that is similar to that of bone, the low weight, and the comfort of the material mean that patients forget they are wearing a denture.

	Auxiliary material	Medical device	permanent	temporary	Page number
breCAM.wax	X				4
breCAM.splint		X		≤ 2 Year	6
breCAM.monoCOM / breCAM.multiCOM		X		≤ 2 Year	10
breCAM.HIPC		X	X		14
breCAM.BioHPP		X	X		18
BioHPP elegance prefab		X	X		22

TOOL

breCAM.cutter	X				28
Support					34

SMART

breCAM.wax blanks are made from a special milling wax (micro-crystalline hydrocarbon wax with hard paraffin and polyethylene parts), which is very easy to process.

bre.CAM wax is perfectly suited to the digital production of fully anatomical or reduced frameworks, inlays, onlays, implant work up to large-span bridges for metal casting and pressing techniques (ceramic and BioHPP).

Machine production of crowns and frameworks for metal casting and pressing techniques

- Cost and time saving

Better fit of the metal casting due to tension-free processing (compared to manual waxing)

- less reworking, less material loss

Uniform framework designs/connector strengths due to the CAD construction

- more stable frameworks and the same qualities, less reworking and time saving

Flexible production

- existing CNC capacities can be exhausted in terms of time



Image: Lab. Od. Antonio Lazetera, Savona, Italy

The wax has a drying point of 120 °C, possesses slight elasticity, strong edge stability for fast milling speeds and burns without residues. The raw material in the wax blanks is fused in a controlled manner in industrial processes and subsequently cooled in a defined temperature arc.

Indication

Metal casting



Press ceramics
BioHPP *for2press*



Wax-up



Dry machining
PMMA /Composite



Wet machining
PMMA/Composite



Dry machining
Thermoplastic/cutter



Order information

These milling blanks have a standard size of Ø 98.5 mm with fold.

	Quantity	20 mm
breCAM.wax	2	REF 51000921



CLEAR

breCAM.splint is a chemoplastic PMMA specially designed for the manufacture of drill templates, table tops and bite splints. Because it can be burnt out, it can be used for the metal casting technique or applied directly.



Benefit:

- 2-year wearing time – high patient acceptance and product value
- High biocompatibility – broad application spectrum
- High-precision fit – no tension from polymerisation shrinkage
- Crystal-clear material - aesthetically appealing splints
- Good elasticity – high wear comfort, low break risk
- CAD/CAM – reproducible, use of virtual articulator and digital functional diagnostics
- Can be burnt out without leaving a residue - multiple product uses (direct/indirect)

Indication

Metal casting



Try-ins



Therapy

Braces



Table tops



Processing

Monolithic



Metal-free



Securing

Temporary cement



CLEAR

Framework design

Minimum wall strength
(unveneered)



> 1,2 occlusal
0,6 mm cervical

Pontics



max. 1

Front teeth
Ø Connector



> 10 mm²

Side teeth
Ø Connector

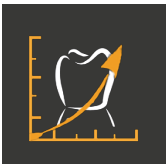


> 16 mm²

Material properties

According to DIN EN ISO 10477

E-modulus



≥ 2200 MPa

Flexural strength



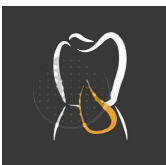
≥ 100 MPa

Water solubility



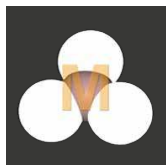
≤ 2 µg/mm³

Water absorption



≤ 25 µg/mm³

Residual monomer



DIN EN ISO 20795-1
< 1,0 %

Wearing time



up to 2 years

Processing

Chemoplastic PMMAs place no particular demand on cutting machining and can therefore usually be processed wet or dry using standard cutting templates for PMMA processing and current PMMA cutters.

Dry machining
PMMA /Composite



Wet machining
PMMA/Composite



Dry machining
Thermoplastic/cutter



Order information

These milling blanks have a standard size of Ø 98.5 mm with fold.

	15 mm	20 mm	25 mm	W
breCAM.splint	REF 54002315	REF 54002320	REF 54002325	

These milling blanks are a standard size at Ø 100 mm without fold.

	15 mm	20 mm	25 mm	100
breCAM.splint	REF 54002415	REF 54002420	REF 54002425	

These milling blanks are a standard size at Ø 95 mm .

	16 mm	20 mm	-	ZZ
breCAM.splint	REF 54002516	REF 54002520	-	

UNIVERSAL

For long-term temporary prostheses with a wearing time of up to two years:

Monochromatic: breCAM.monoCOM

Polychromatic: breCAM.multiCOM

Material

breCAM.monoCOM: Polymethyl methacrylate base with low filler content

breCAM.multiCOM: The blank is produced from a polymethyl methacrylate base and has been offset with >20% ceramic fillers in order to increase its strength.

The inorganic filler (ceramic particles) has been integrated into the plastic matrix of the organic PMMA.

Aesthetics

The multichromatic layering of breCAM.multiCOM gives the dental prosthesis a natural colour gradient.

Highly aesthetic, temporary dental prostheses with low material costs and low time expenditure.

breCAM.monoCOM is available as a monochrome, convenient variant.

Use & machining

Optimised material properties in terms of strength and abrasion-resistance. Very well-suited for dry or wet cutting.

Wearing time

A wearing time of two years is perfect for temporary dental prostheses in the context of surgical procedures and longer regeneration phases.



Image: Lab. Od. Antonio Lazetera, Savona, Italy

breCAM.monoCOM / breCAM.multiCOM

Indication

Permanent dental Prosthesis



Crowns and Bridges



Implant-supported



Therapy

Braces



Table tops



Processing

Framework



Monolithic



Metal-free



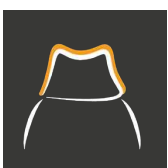
Securing

Temporary cement



Framework design

Minimum wall strength (unveneered)



> 1,00 occlusal
0,6 mm cervical

Pontics



max. 1

Front teeth
Ø Connector



> 10 mm²

Side teeth
Ø Connector



> 15 mm²

UNIVERSAL

Material properties

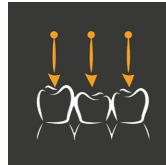
According to DIN EN ISO 10477

E-modulus



> 2200 MPa

Flexural strength



> 100 MPa

Water solubility



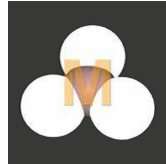
< 0,8 µg/mm³

Water absorption



≤ 20 µg/mm³

Residual monomer



< 1 %

Wearing time



up to 2 years

Processing

breCAM.monoCOM / breCAM.multiCOM is generally suitable for both dry and wet machining. Composites are slightly harder to process due to their ceramic part.

Dry machining
PMMA /Composite



Wet machining
PMMA/Composite



Dry machining
Thermoplastic/cutter



breCAM.monoCOM/ breCAM.multiCOM

Order information



These milling blanks have a standard size of Ø 98.5 mm with fold.

breCAM.monoCOM	16 mm	20 mm
A1	REF 54003619	REF 54003599
A2	REF 54003620	REF 54003600
A3	REF 54003621	REF 54003601
A3,5	REF 54003622	REF 54003602
A4	REF 54003623	REF 54003603
B1	REF 54003624	REF 54003604
B3	REF 54003626	REF 54003606
C2	REF 54003627	REF 54003607
C3	REF 54003628	REF 54003608
D2	REF 54003629	REF 54003609
D3	REF 54003630	REF 54003610



These milling blanks have a standard size of Ø 98.5 mm with fold.

breCAM.multiCOM	16 mm	20 mm
A1	REF 54003010	REF 54003015
A2	REF 54003020	REF 54003025
A3	REF 54003030	REF 54003035
A3,5	REF 54003040	REF 54003045
B2	REF 54003060	REF 54003065
C2	REF 54003070	REF 54003075
C3	REF 54003080	REF 54003085
D2	REF 54003090	REF 54003095
D3	REF 54003100	REF 54003105



These milling blanks are a standard size at Ø 95 mm .

breCAM.multiCOM	16 mm	20 mm
A1	REF 54003110	REF 54003115
A2	REF 54003120	REF 54003125
A3	REF 54003130	REF 54003135
A3,5	REF 54003140	REF 54003145
B2	REF 54003160	REF 54003165



These milling blanks are a standard size at Ø 84,5 mm.

breCAM.multiCOM	16 mm	20 mm
A1	-	REF 54003215
A2	-	REF 54003225
A3	-	REF 54003235
A3,5	-	REF 54003245
B2	-	REF 54003265

DEFINITIVE

HIPC: "High Impact Polymer Composite" for long-term dental prostheses. breCAM.HIPC is an amorphous, cross-linked composite and therefore offers definitely higher physical values than conventional PMMA. Manufacturing is carried out under pressure and in heated conditions similar to prefabricated teeth made from plastic at approximately 120 °C and 250 bars of pressure. Avoiding the use of dental glass and light-curing plastic ensures a high level of colour retention and plaque resistance (comparable with direct ceramic veneers or press ceramics).

HIPC originates from the development of the visio.lign system and corresponds to novo.lign veneers in chemical terms, with this material being extremely well-suited for a long-term dental prosthesis.

For a long-term dental prosthesis - HIPC has already been tested in vivo and approved for over 9 years.

For a wide range of indications

- Removable or fixed
- Monolithic or veneerable
- Reduces the number of systems used in the laboratory, lower costs

Excellent gingival compatibility

Resistant to plaque and discolouration

high level of strength/long-term stability

- As a high-performance polymer, HIPC does not lose its strength in comparison with ceramic, ceramic "ages".
- Material reliability and long-term stability of breCAM.HIPC leads to fewer complaints and repairs.

Aesthetic, translucent and opalescent material

- Excellent colour effect with minimally invasive forms of restoration
- Complicated cases with a lack of space can be neatly resolved with HIPC.



Image: Lab. Od. Antonio Lazetera, Savona, Italy

Indication

Permanent dental Prosthesis



Crowns and Bridges



Primary telescope



Implant-supported



Removable dental prosthesis



Secondary bridge



Secondary telescope



Tertiary Framework



Therapy

Gingival management



Braces



Table tops



Pressure-absorbing



Processing

Framework



Can be veneered



Monolithic

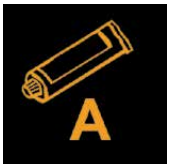


Metal-free



Securing

Lasting adhesive

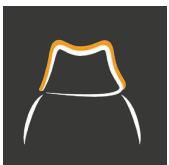


Temporary cement



Framework design

Minimum wall strength (unveneered)



≥ 0,7 occlusal
≥ 1,0 mm cervical
Implant-supported ≥ 1 mm

Pontics



max. 2

Front teeth
Ø Connector



≥ 11 mm²

Side teeth
Ø Connector



≥ 14 mm²

DEFINITIVE

Material properties

According to DIN EN ISO 10477

E-modulus



≥ 2200 MPa

Flexural strength



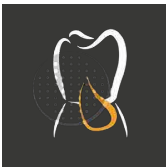
≥ 110 MPa

Water solubility



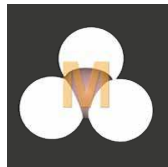
$\leq 0,5$ $\mu\text{g}/\text{mm}^3$

Water absorption



≤ 26 $\mu\text{g}/\text{mm}^3$

Residual monomer



$\leq 0,5$ %

Wearing time



permanent

Processing

Dry machining
PMMA /Composite



Wet machining
PMMA/Composite



Dry machining
Thermoplastic/cutter



Order information



These milling blanks have a standard size of
Ø 98.5 mm with fold.

These milling blanks
are a standard size at
Ø 84,5 mm.

These milling blanks
are a standard size at
Ø 95 mm.

	Colour	20 mm	16 mm	20 mm	20 mm
breCAM.HIPC	bleach	REF 54003398	REF 54003418	REF 54003458	REF 54003438
breCAM.HIPC	A1	REF 54003399	REF 54003419	REF 54003459	REF 54003439
breCAM.HIPC	A2	REF 54003400	REF 54003420	REF 54003460	REF 54003440
breCAM.HIPC	A3	REF 54003401	REF 54003421	REF 54003461	REF 54003441
breCAM.HIPC	A3,5	REF 54003402	REF 54003422	REF 54003462	REF 54003442
breCAM.HIPC	A4	REF 54003403	REF 54003423	REF 54003463	REF 54003443
breCAM.HIPC	B2	REF 54003404	REF 54003424	REF 54003464	REF 54003444
breCAM.HIPC	B3	REF 54003405	REF 54003425	REF 54003465	REF 54003445
breCAM.HIPC	C2	REF 54003406	REF 54003426	REF 54003466	REF 54003446
breCAM.HIPC	C3	REF 54003407	REF 54003427	REF 54003467	REF 54003447
breCAM.HIPC	D2	REF 54003408	REF 54003428	REF 54003468	REF 54003448
breCAM.HIPC	D3	REF 54003409	REF 54003429	REF 54003469	REF 54003449
breCAM.HIPC	clear	REF 54003410	REF 54003430	REF 54003470	REF 54003450

PHYSIOLOGICAL

Biocompatible High Performance Polymer

From PEEK to BioHPP

BioHPP is a partly crystalline, thermoplastic, and highly heat resistant high performance polymer based on PEEK (poly-ether ether ketone), filled with bound inorganic microparticles with a diameter of $< 0.5 \mu\text{m}$.

As a result, its physiological elasticity has been retained and paired with the perfect stiffness for oral use and outstanding polishing properties thanks to its ceramic extension.

Therefore, BioHPP achieves a unique balance between:

- Elasticity and rigidity
- Weight and fracture strength
- Physiology and plaque neutrality



Image: Lab. Od. Antonio Lazetera, Savona, Italy

Indication

Permanent dental Prosthesis



Crowns and Bridges



Primary telescope



Implant-supported



Implant-supported bridge



Removable dental prosthesis



Secondary bridge



Secondary telescope



Tertiary Framework



Prosthesis



Therapy

Gingival management



Pressure-absorbing



Processing

Framework



Can be veneered



Monolithic



Metal-free



Securing

Lasting adhesive



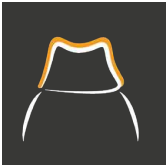
Temporary cement



PHYSIOLOGICAL

Framework design

Minimum wall strength
(unveneered)



≥ 0,7 occlusal
≥ 1,0 mm cervical

Pontics



max. 2

Front teeth
Ø Connector



≥ 9 mm²

Side teeth
Ø Connector



≥ 12 mm²

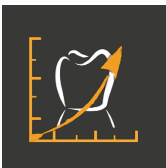
Thermoplastic materials (e.g. BioHPP) generally require precise, expert cutting in dry machining processes due to their sensitivity to heat and the associated risk of deformities. This means that special cutters and adapted milling templates with a reduced cutting speed have to be used.

In the favoured wet machining process with standard PMMA milling templates, no special settings or machining parameters have to be used. The patented breCAM.cutter, which can also be used to machine thermoplastic materials, is recommended for the special dry and wet machining of this material.

Material properties

According to DIN EN ISO 10477

E-modulus



≥ 4200 MPa

Flexural strength



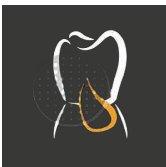
≥ 160 MPa

Water solubility



≤ 0,3 µg/mm³

Water absorption



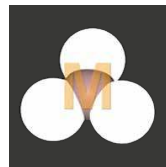
≤ 6,5 µg/mm³

Wearing time



permanent

Residual monomer



= 0 %

Processing

Dry machining
PMMA /Composite



Wet machining
PMMA/Composite



Dry machining
Thermoplastic/cutter



Order information

These milling blanks have a standard size of Ø 98.5 mm with fold.

	12 mm	16 mm	20 mm	24 mm
breCAM.BioHPP	REF 54002029	REF 54002030	REF 54002031	REF 54002032
breCAM.BioHPP dentin-shade 2	REF 54002069	REF 54002070	REF 54002071	REF 54002072



These milling blanks are a standard size at Ø 95 mm:

	12 mm	16 mm	20 mm	24 mm
breCAM.BioHPP	-	-	REF 54002091	-
breCAM.BioHPP dentin-shade 2	-	-	REF 54002101	-



These milling blanks are a standard size at Ø 84,5 mm:

	12 mm	16 mm	20 mm	24 mm
breCAM.BioHPP	-	-	REF 54002111	-
breCAM.BioHPP dentin-shade 2	-	-	REF 54002121	-



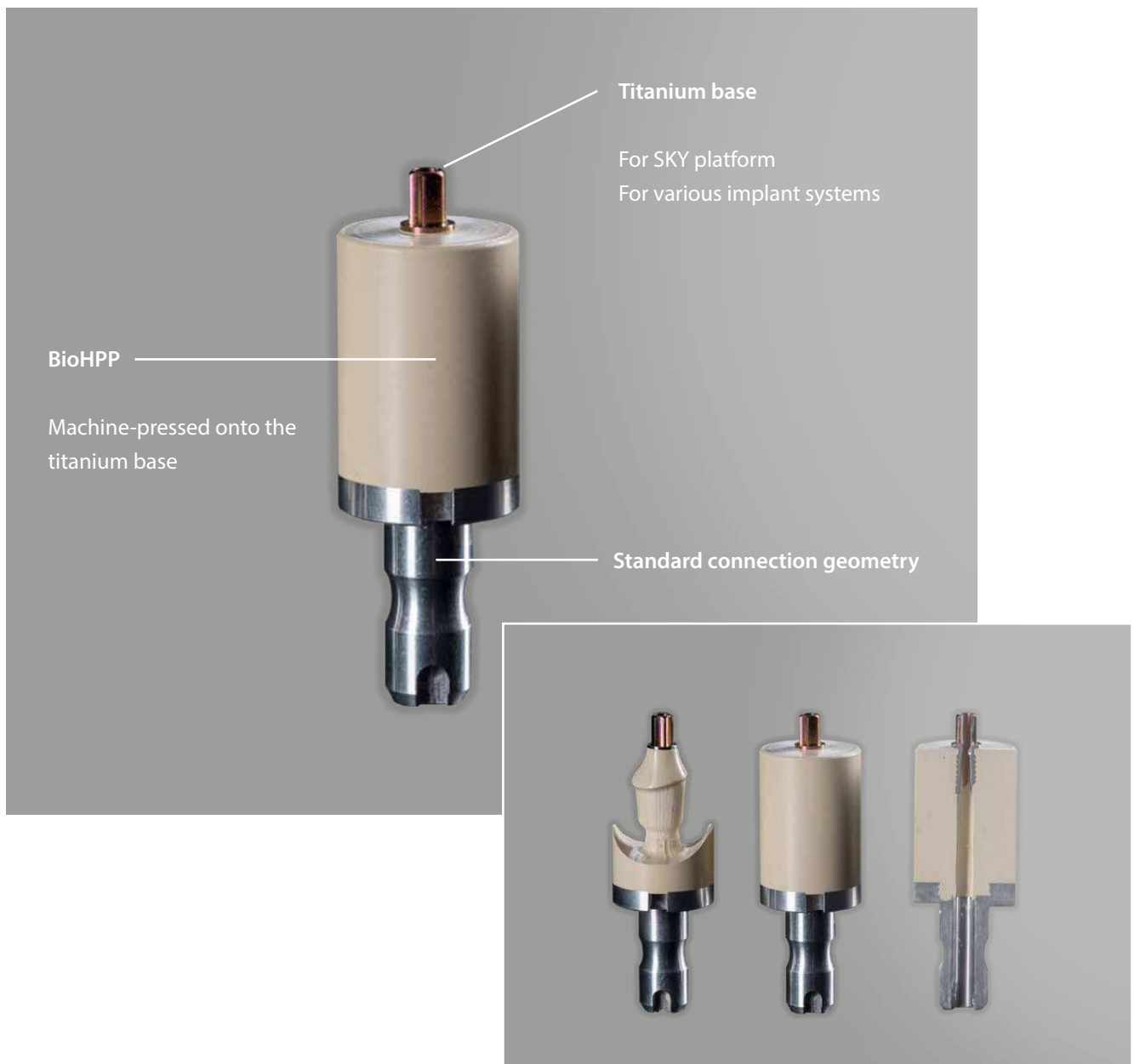
PHYSIOLOGICAL

The world's first individual physiological hybrid abutment

The BioHPP elegance prefab is a millable abutment blank for the manufacture of individual BioHPP hybrid abutments.

Indications:

- Individual tooth and bridge restorations
- Telescopic restorations of at least 4 implants
- Max. angle to implant axis of 25°
- Suitable for immediate restorations and immediate loading



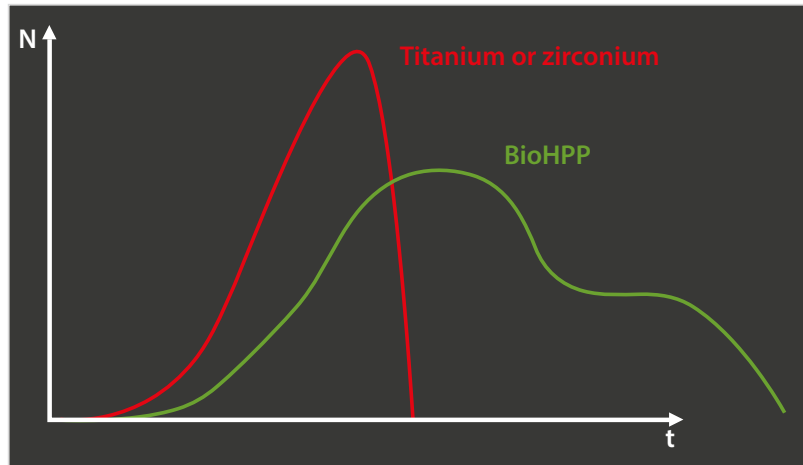
BioHPP elegance prefab

Physiological

Physiological dental prosthesis; thanks to the periodontium-like

(OFF-PEAK) shock absorption, the loading of the implant is delayed and absorbed over time.

- High wearing and chewing comfort, lower rate of implant loss due to overloading
- Suitable for immediate loading and as one-time abutment
- Natural feel in the mouth
- Natural aesthetics
- Reduces the risk of peri-implantitis
- Optimised osseointegration
- Reduces chipping
- Protects the antagonists
- Guarantees a long-lasting restoration



Hygienic

Homogeneous, gap-free connection of grade 4/5 titanium and BioHPP, with the best mechanical and biological properties.

- No ageing/material fatigue of the adhesive joint due to lack of glue/glue gap
- Prevents the accumulation of microbes and thus reduces the risk of inflammation and secondary treatments

Gum management with BioHPP

- Can be processed in the mouth (for example, adaptation to the contour of the gum)
- Scannable without spray (also intraorally)
- Sterilisable
- Very good gingival bonding

Safe

- BioHPP - over 10 years of clinical & scientific experience

Simple

- Maximum customisation
- Digital production
- Intra-oral processing, like dentine



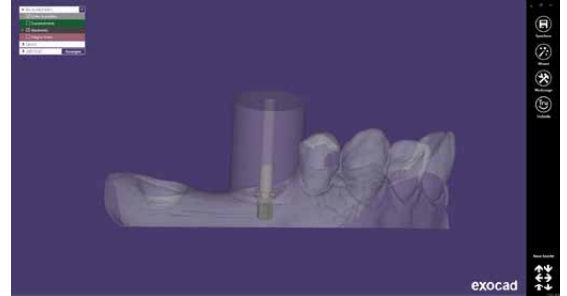
PHYSIOLOGICAL

Design:

All data sets for the following design software can be downloaded from the brendent website:

Exocad
3 shape
dentalwings







<http://www.brendent.com/de/brendent/cad-library/>



CAD Library

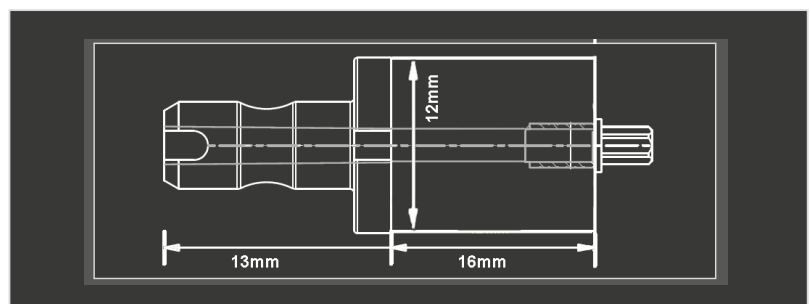
-

CAD library for 3shape		Hide available downloads 
brendent BioHPP elegance Prefabs	Display overview	
brendent medical library	Display overview	
brendent library for structural elements	Display overview	

-  **brendent BioHPP elegance prefab library for 3shape_9_18.zip** (File size: 8.8 MB)
-  **brendent attachment library for 3shape_9_18.zip** (File size: 1.6 MB)
-  **brendent barprofile library for 3shape_9_18.zip** (File size: 0 MB)
-  **brendent medical implant library for 3shape_9_18.zip** (File size: 2.1 MB)
-  **Integrate the construction elements in 3shape** (File size: 2.6 MB)
-  **Integrate the implant library in 3shape** (File size: 2.6 MB)

Processing

For different milling machines with brackets for milling blocks with standard geometry



In combination with one of the following CAM software applications:

CAM software
Prefab edition (UNIQUE cadcam)
vhf
Zyklon CAM (Imes Icore)
iCAM V 4.6 (Imes Icore)
SUM 3D
<i>And more to come</i>

BioHPP elegance prefab

interface	implant systems		CAD System name	BioHPP elegance prefab	Scan Abutment	BioHPP elegance prefab
	can be used	∅		Materials	REF	REF

Biomet 3i



for Osseotite Certain	3,4 mm	OC34	Titanium Grade 5	OC34SCAN	BOC34B201
			BioHPP		
for Osseotite Certain	4,1 mm	OC41	Titanium Grade 5	OC41SCAN	BOC41B201
			BioHPP		
for Osseotite Certain	5,0 mm	OC50	Titanium Grade 5	OC50SCAN	BOC50B201
			BioHPP		

Dentsply Sirona Implants (Astra Tech)



for OsseoSpeed	3,5 mm	OS35	Titanium Grade 5	OS35SCAN	BOS35B201
			BioHPP		
for OsseoSpeed	4,5 mm	OS45	Titanium Grade 5	OS45SCAN	BOS45B201
			BioHPP		

BioHorizons



for Biohorizons Internal	3,7 mm	BI37	Titanium Grade 5	BI37SCAN	BBI37B201
			BioHPP		
for Biohorizons Internal	4,25 mm	BI42	Titanium Grade 5	BI42SCAN	BBI42B201
			BioHPP		
for Biohorizons Internal	5,25 mm	BI52	Titanium Grade 5	BI52SCAN	BBI52B201
			BioHPP		

Camlog



for CONELOG	3,3 mm	CL33	Titanium Grade 4	CL33SCAN	BCL33B201
			BioHPP		
for CONELOG	3,8 mm	CL38	Titanium Grade 4	CL38SCAN	BCL38B201
			BioHPP		
for CONELOG	4,3 mm	CL43	Titanium Grade 4	CL43SCAN	BCL43B201
			BioHPP		
for CONELOG	5,0 mm	CL50	Titanium Grade 4	CL50SCAN	BCL50B201
			BioHPP		

Camlog



for SCREW/ROOT- LINE	3,8 mm	SL38	Titanium Grade 5	SL38SCAN	BSL38B201
			BioHPP		
for SCREW/ROOT- LINE	4,3 mm	SL43	Titanium Grade 5	SL43SCAN	BSL43B201
			BioHPP		

PHYSIOLOGICAL

Dentsply Sirona Implants



for Frialit-Xive	3,4 mm	XV34	Titanium Grade 5	XV34SCAN	BXV34B201
			BioHPP		
for Frialit-Xive	3,8 mm	XV38	Titanium Grade 5	XV38SCAN	BXV38B201
			BioHPP		
for Frialit-Xive	4,5 mm	XV45	Titanium Grade 5	XV45SCAN	BXV45B201
			BioHPP		

Nobel Biocare



for Branemark TiUnite MkIII	3,5 mm	TU35	Titanium Grade 5	TU35SCAN	BTU35B201
			BioHPP		
for Branemark TiUnite MkIII	4,1 mm	TU41	Titanium Grade 5	TU41SCAN	BTU41B201
			BioHPP		
for Branemark TiUnite MkIV	5,1 mm	TU51	Titanium Grade 5	TU51SCAN	BTU51B201
			BioHPP		

Nobel Biocare



for NobelActive	3,5 mm	NA35	Titanium Grade 5	NA35SCAN	BNA35B201
			BioHPP		
for NobelActive	4,3 mm	NA43	Titanium Grade 5	NA43SCAN	BNA43B201
			BioHPP		

Nobel Biocare



for NobelReplace Select	3,5 mm	RP35	Titanium Grade 5	RP35SCAN	BRP35B201
			BioHPP		
for NobelReplace Select	4,3 mm	RP43	Titanium Grade 5	RP43SCAN	BRP43B201
			BioHPP		
for NobelReplace Select	5,0 mm	RP50	Titanium Grade 5	RP50SCAN	BRP50B201
			BioHPP		

Straumann



for Bone Level	3,3 mm	BL33	Titanium Grade 4	BL33SCAN	BBL33B201
			BioHPP		
for Bone Level	4,1 mm	BL41	Titanium Grade 4	BL41SCAN	BBL41B201
			BioHPP		

Straumann



for synOcta	4,8 mm	SO48	Titanium Grade 4	SO48SCAN	BSO48B201
			BioHPP		
for synOcta	6,5 mm	SO65	Titanium Grade 4	SO65SCAN	BSO65B201
			BioHPP		

BioHPP elegance prefab

Sweden Martina



for Kohno	3,8 mm	KH38	Titanium Grade 5	KH38SCAN	BKH38B201
			BioHPP		
for Kohno	4,25 mm	KH42	Titanium Grade 5	KH42SCAN	BKH42B201
			BioHPP		
for Kohno	5,0 mm	KH50	Titanium Grade 5	KH50SCAN	BKH50B201
			BioHPP		

Zimmer Dental



for Tapered Screw V	3,5 mm	SV35	Titanium Grade 5	SV35SCAN	BSV35B201
			BioHPP		
for Tapered Screw V	4,5 mm	SV45	Titanium Grade 5	SV45SCAN	BSV45B201
			BioHPP		
for Tapered Screw V	5,7 mm	SV57	Titanium Grade 5	SV57SCAN	BSV57B201
			BioHPP		

All names or protected brands and/or company names of third-party rights holders, as well as stated company names and descriptions refer to the minimum information for use of the product.

TOOL

Innovative cutting geometry for CAD/CAM processing

Especially for the dry machining of thermoplastic materials



- ① Radial relief angle divided into thirds to reduce heat when feeding into the milling process
- ② Relief angle divided into thirds to reduce heat when starting the milling process. Machined clearance shape in the half radius.
- ③ Side clearance that starts at the pull to optimise chip removal along the z-axis (immersion in the material)
- ④ Multiple rear reliefs to reduce heat generation
- ⑤ Tapered, sharp cutting edge cutting for precise heat-reduced cutting
- ⑥ Radial geometry shaping area, on one side to define the radius of the milling result
- ⑦ Single-edged pull with tapered cutting angle for quick and coarse chip removal

Innovative cutting geometry enables the dry processing of PMMA, PEEK and other thermoplastic materials in CNC milling machines.

Due to the low heat generation of the bre.CAM cutter during the milling process, easily fusing materials can be machined without the need for water cooling. Warping of delicate structures is avoided. Even at a high feed rate, the bre.CAM cutter generates a smooth surface on the workpiece thanks to its patented cutting of multiple rear reliefs. This saves time during the milling process and further processing.

Composite



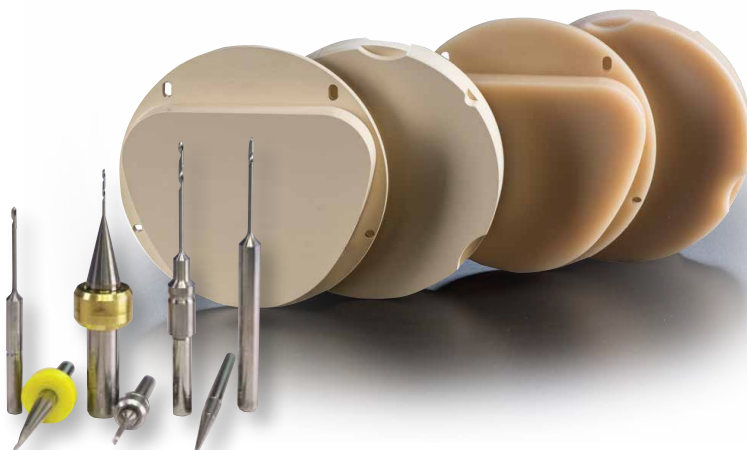
Wet machining
PMMA/Composite



Dry machining
Thermoplastic/cutter



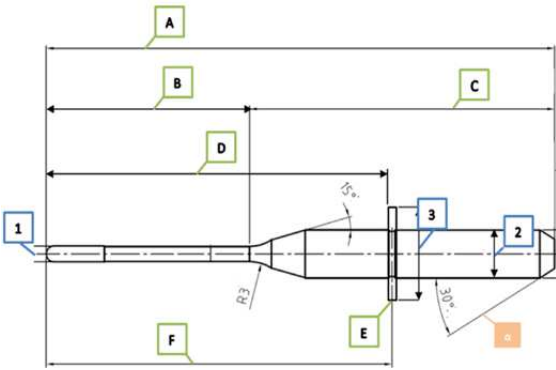
Thanks to a special cutting geometry, it is also possible to take thermoplastic materials, which have properties which allow them to spread quickly and clog up the tool, and mill them without water cooling.



“bre.CAM.cutter for all polymers,
thermoplastics and waxes”

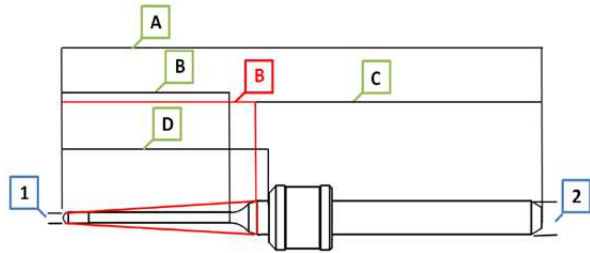
breCAM.cutter

The stated measurements relate to DIN ISO 2768-1 (1991-06), tolerance class f (fine) for length and angle measurements ± 0.1



	1	2	3	A	B	C	D	E
--	---	---	---	---	---	---	---	---

imes.icore	breCAMX47	1	3	X	38,2	17	21	26,7	X
	zenotec	breCAMX48	2	3	X	38,2	20	18	26,7

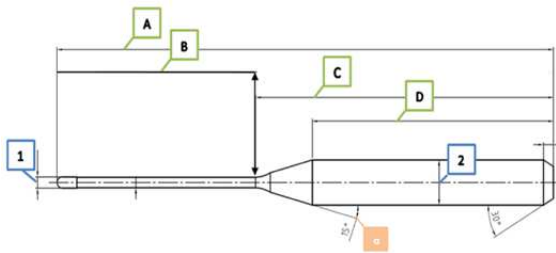


	1	2	A	B	B	C	D
--	---	---	---	---	---	---	---

AG	breCAMY28	0,6	3	47	X	18,3	X	20,2
	breCAMY32	1	3	47	16,4	X	28	20,2
	breCAMY31	2,5	3	47	17,9	X	28	20,2

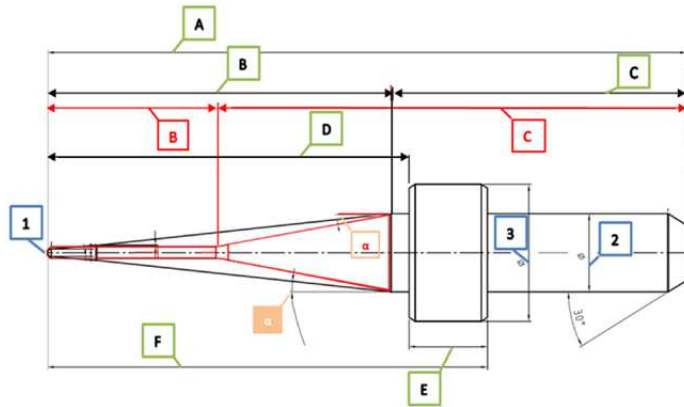
	1	2	3	A	B	C	D	E
--	---	---	---	---	---	---	---	---

vhf	breCAMX67	1	3	X	35	17	18	23,5	X
	breCAMX69	2	3	X	35	20	15	23,5	X
	400310KU	1,0	3,0	7,0	40	16,6	23,4	25,5	0,4
	400320KU	2,0	3,0	7,0	40	16,4	23,6	25,5	0,4



	1	2	A	B	C	D
--	---	---	---	---	---	---

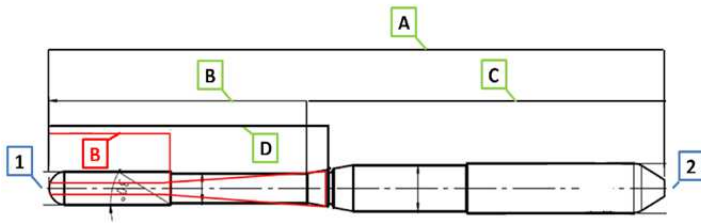
ROLAND	breCAMX53	1	4	50	17	33	30,6
	breCAMX54	2	4	50	20	30	27,7



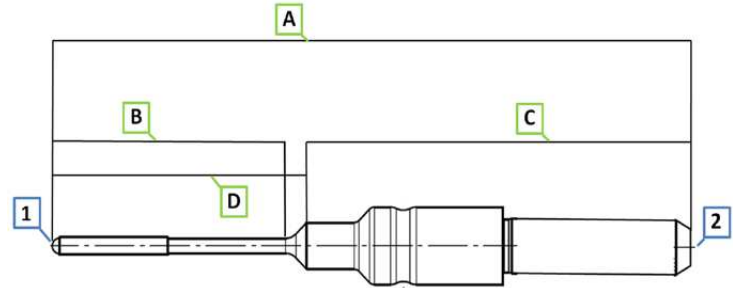
	1	2	3	A	B	B	C	C	D	E
--	---	---	---	---	---	---	---	---	---	---

coritec	breCAMY55	0,6	6	10,5	45	20,5	8,5	36,5	24,5	21,5	6,5
	breCAMY57	1	6	10,5	45		12	33	24,5	21,5	6,5
	breCAMY34	2,5	6	10,5	45	20,5	12	33	24,5	21,5	6,5

TOOL










		1	2	A	B	B	C	D
ZZ	breCAMY53	0,6	3	57	X	5.9	X	18.5
	breCAMY05	1	3	57	X	8.5	X	18.5
	breCAMY07	2	3	57	18,8	X	38,5	18,5



		1	2	A	B	C	D
Cercon	breCAMY22	1	3,5	50	20	28,5	21,5
	breCAMY24	2	3,5	50	20	28,5	21,5
	breCAMY26	3	3,5	50	20	28,5	21,5

breCAM.cutter Templates

	wax		multiCOM		HIPC		BioHPP	
	breCAM.splint							
 Feed (mm/sec)	∅ 2 mm	20				15	15	15
	≤ ∅ 1 mm	19				22	22	22
 Lateral feed (mm/sec)	≥ ∅ 2 mm	11				7	7	7
	≤ ∅ 1 mm	11				11	11	8
 Rotational speed (RMP)	≥ ∅ 2 mm	16.000				19.000	19.000	18.000
	≤ ∅ 1 mm	25.000				25.000	25.000	20.000
 Delivery Z (mm)	≥ ∅ 2 mm	0,5				0,5	0,5	0,40
 Offset (mm)	≥ ∅ 2 mm	0,05				0,05	0,05	0,05
	≤ ∅ 1 mm	0				0	0,5	0
 Path intersection (%)	≥ ∅ 2 mm	50 %				50 %	50 %	50 %
 Path distance (mm)	≥ ∅ 1 mm	0,075				0,05	0,05	0,05

TOOL

Good to know: coating is not the same as coating

Growing challenges for cutting are setting increasingly higher requirements for the tool. The enduring trend in cutting technology is constantly faster and more precise, with a longer service life.

“Simultaneous five-axis processing” is the key word; in this form of processing, the tool must be made in a single working step with various cutting angles, cutting speeds and cut depths. In short: the demands made of the tool blade are increasing rapidly.

The diamond-like carbon DLC coating, which is widely used across the dental market, is a black carbon coating, which can not be compared qualitatively with a real diamond coating.

Therefore, a pure DLC coating increases the service life compared to a non-coated tool by a factor of approx. 0.3, i.e., 30%.

We apply a real diamond coating, such as that on the breCAM.cutter ZR, using CVD (“Chemical Vapour Deposition”). This extra strong, real diamond coating increases the tool's service life compared to non-coated tools by up to a factor of 4, i.e., 400%.

Product characteristics:

- high degree of hardness at 10,000 HV0.05
- high level of thermoconductivity
- good slip properties
- high dimensional accuracy and process capability
- extremely abrasion-resistant
- extra-thick diamond coating

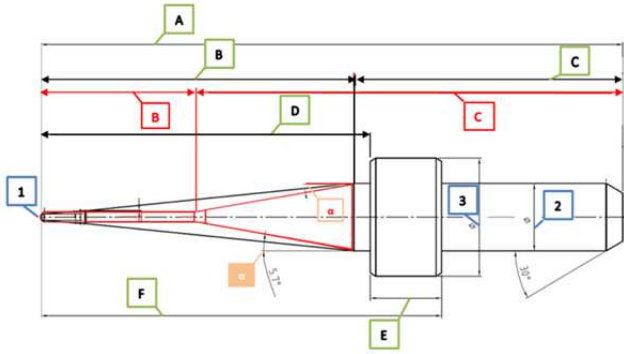
Benefit:

The properties lead to an extraordinarily high tool service life and uniform milling results. Due to the long service life, these are much more cost effective compared to standard, non-coated or DLC-coated tools. The set-up times and storage provisions for tools reduce drastically.



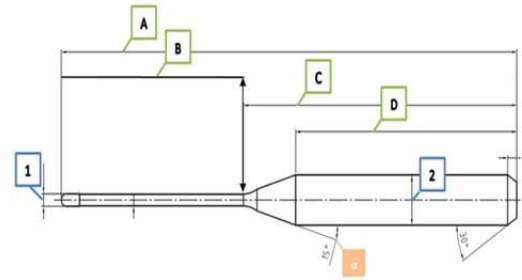
“breCAMcutter ZR for processing zirconium oxide”

d1	d2		l1	l2	Konus (φ)		
	[mm]	[mm]	[mm]	[mm]	[mm]		[°]



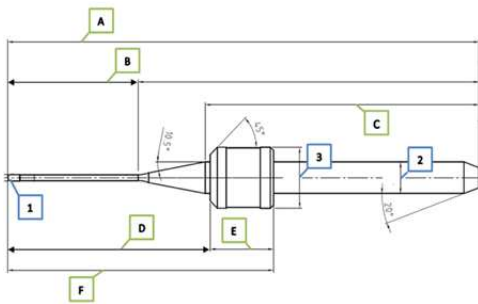
1	2	3	A	B	C	D	E	F	α
---	---	---	---	---	---	---	---	---	---

imes.icore										
IMI3006X	0,6	3	7,5	48	21,6	26,4	26,4	4,55	31	3,2
IMI3010D	1	3	7,5	48	14	34	26,4	4,55	31	
IMI3025D	2,5	3	7,5	48	20	28	26,4	4,55	31	R3
IMI6006X	0,6	6	10,5	53	28,5	24,5	30	6,5	36,6	5,7
IMI6010D	1	6	10,5	53	14	39	30	6,5	36,5	10
IMI6025D	2,5	6	10,5	53	20	23	30	6,5	36,5	13



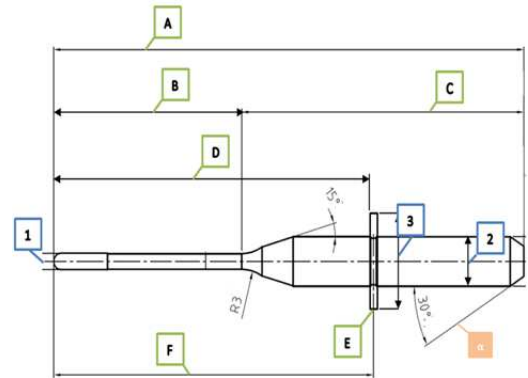
1	2	3	A	B	C	D	E	F	α
---	---	---	---	---	---	---	---	---	---

Roland										
ROL4003X	0,3	4	X	50	4	46	38,9	X	X	15 R3
ROL4006X	0,6	4	X	50	10,5	39,5	33,5	X	X	15 R3
ROL4010D	1	4	X	50	20	30	24,3	X	X	15 R3
ROL4020D	2	4	X	50	20	30	26,1	X	X	15 R3



1	2	3	A	B	C	D	E	F	α
---	---	---	---	---	---	---	---	---	---

Amann Girrbach										
AMG3006X	0,6	3	5,8	47	13	27,3	20,2	6,3	26,5	R3
AMG3010D	1	3	5,8	47	16	28,5	20,2	6,3	26,5	R3
AMG3025D	2,5	3	5,8	47	18	27,5	20,2	6,3	26,5	18 R3



1	2	3	A	B	C	D	E	F	α
---	---	---	---	---	---	---	---	---	---

vhf										
VHF3506X	0,6	3	4,0	35	3,2	31,8	23,6	0,4	23,8	15
VHF3510X	1	3	4,0	35	14	21	23,6	0,4	23,8	15
VHF3520X	2	3	4,0	35	20	15	23,6	0,4	23,8	15

vhf										
VHF3006X	0,6	3	4,0	40	3,2	36,8	26,5	0,4	26,7	15
VHF3010D	1	3	4,0	40	16	24	26,5	0,3	26,7	R3
VHF3020D	2	3	4,0	40	16	24	26,5	0,4	26,7	R3

marked fields are not diamond-coated cutters

Service

Downloads

In our CAD library on the bredent website, you can find the design data for







- BioHPP elegance prefabs
- SKY library
- bredent library for design elements

For 3shape®, exocad® and dentalwings®

<http://www.bredent.com/de/bredent/cad-library/>

CAD Library

CAD library for 3shape	Display available downloads 
CAD library for exocad	Hide available downloads 
bredent BioHPP elegance Prefabs	Display overview 
bredent medical library	Display overview 
bredent library for design elements	Display overview 

-  **bredent BioHPP elegance prefab library for exocad 9_18.zip** (File size: 101.9 MB)
-  **bredent attachment library for exocad 9_18.zip** (File size: 5.8 MB)
-  **bredent barprofil library for exocad 9_18.zip** (File size: 0 MB)
-  **bredent medical implant library for exocad v9.18.zip** (File size: 12.6 MB)
-  **Integrate the construction elements in exocad** (File size: 1.3 MB)
-  **Integrate the implant library in exocad** (File size: 1.3 MB)

As the user and/or supplier of your CAD/CAM system, you are responsible for the integration of datasets into your implant library and the further processing of those datasets.

Furthermore, any support is to be provided by your software provider.


Please note that when you click the "upload" button in your design software, your design will be sent to your default milling centre and not to bredent GmbH & Co.KG.

bredent GmbH & Co.KG shall accept no liability for damage caused to software or hardware or any financial losses resulting from the use of the data.

Accept:

Download selected files "✓" in ZIP 

CAD library for dental wings

Display available downloads 

Courses:

Find out more about the bredent training programme with a wide range of courses on digital workflows



Service provider:

DASA Dent - Milling Technologies & Consulting
 Rothenbaumchaussee 83
 D-20148 Hamburg
 Tel.: 040 41 42 99 33
 Fax: 040 41 42 99 35

Material	Construction	Mills
breCAM.cast	x	x
breCAM.wax	x	x
breCAM.splint	x	x
breCAM.resin	x	x
breCAM.multiCOM	x	x
breCAM.HIPC	x	x
breCAM.BioHPP	x	x
SKY fast & fixed	x	x
SKY Titan prefabs	-	-
BioHPP elegance prefabs	x	x

Workflows		
twoinone	x	x
Telescopic crown BioHPP	x	x
CoCr structure BioHPP	x	x

creacam Frästechnik GmbH & Co. KG
 Jägerweg 21
 48712 Gescher
 Tel. +49 2542 - 91 75 95 0
 Fax +49 2542 - 98 29 4
 info@creacam.de
 www.creamcam.de

Material	Construction	Mills
breCAM.cast	x	x
breCAM.wax	x	x
breCAM.splint	x	x
breCAM.resin	x	x
breCAM.multiCOM	x	x
breCAM.HIPC	x	x
breCAM.BioHPP	x	x
SKY fast & fixed	x	x
SKY Titan prefabs	-	-
BioHPP elegance prefabs	x	x

Workflows		
twoinone	x	x
Telescopic crown BioHPP	x	x
CoCr structure BioHPP	x	x

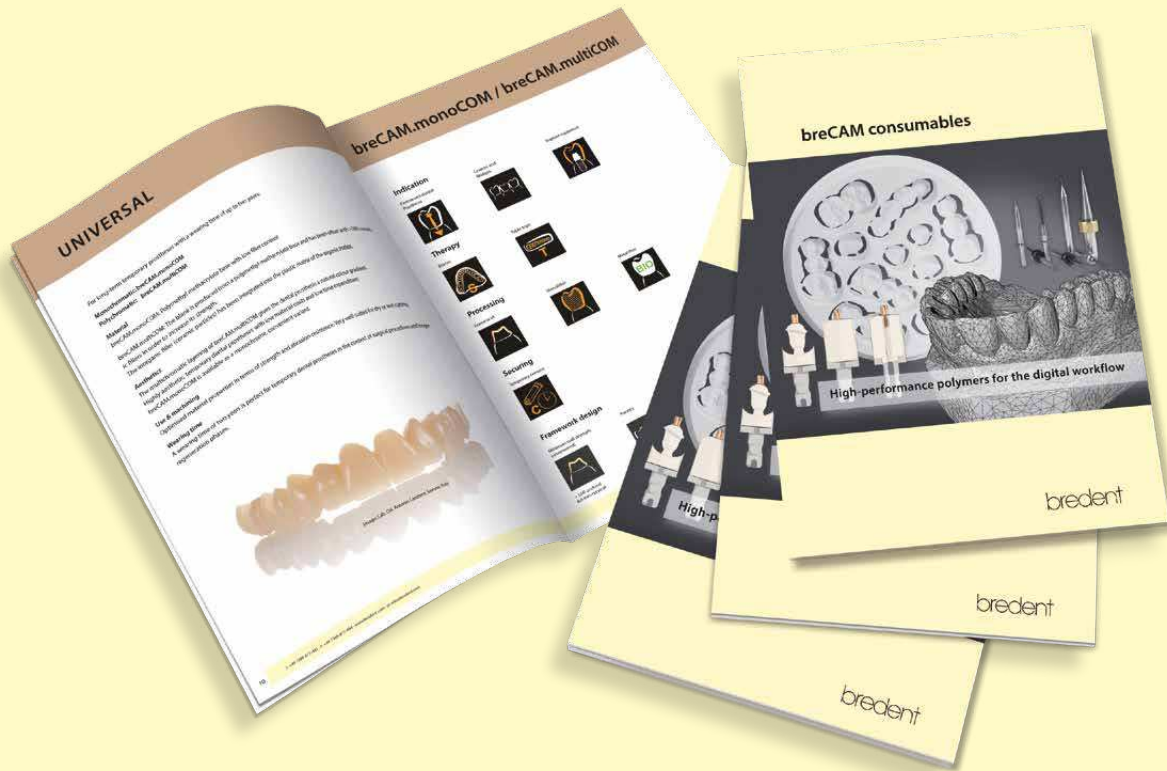
CNC Mack Dentaltechnik GmbH
 Dieselstrasse 25
 89160 Dornstadt
 Tel. +49 (0)7348 2006-0
 Fax +49 (0)7348 2006-66
 info@mack-dentaltechnik.de
 http://www.mack-dentaltechnik.de/

Material	Construction	Mills
breCAM.cast	x	x
breCAM.wax	x	-
breCAM.splint	-	-
breCAM.resin	-	-
breCAM.multiCOM	x	x
breCAM.HIPC	x	x
breCAM.BioHPP	x	x
SKY fast & fixed	x	x
SKY Titan prefabs	-	x
BioHPP elegance prefabs	x	x

Workflows		
twoinone	-	x
Telescopic crown BioHPP	x	x
CoCr structure BioHPP	x	x

breCAM consumables

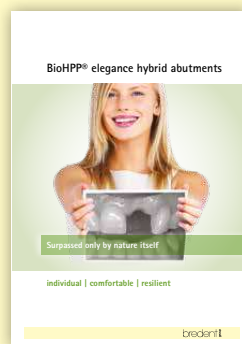
High-performance polymers for the digital workflow



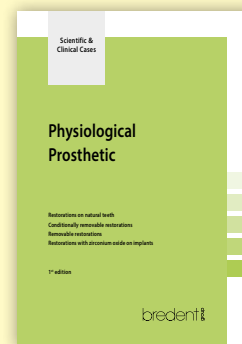
Other offers that may be of interest to you:



REF 000547GB



REF 000534GB



REF 992976GB

000500GB-20190211 Mistake and subject to change reserved

