

# High-performance polymer

For provisional and prosthetic teeth

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***DDpolyXML***

multilayer – natural colored polymers



natural colored polymers  
Aesthetic multilayer PMMA

# DDpolyX<sup>ML</sup>

multilayer – natural colored polymers

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## Multi-Color for Multiple Applications

Natural-looking crowns and bridges thanks to multi-layered color structure.  
For aesthetic long-term temporary restorations up to 12 months and digital artificial denture teeth or bridges – for removable dentures.



### The raw tooth material for milling

The chemical basis of the CAD blanks was adopted from a long-term proven artificial denture tooth and optimised for a milling blank.

Due to the high molecular weight, the material obtains similar hardness and abrasion resistance like the natural teeth.

- highly cross-linked polymethylmethacrylate (PMMA)
- reinforced matrix and polymer network
- Medical classification IIa according to MDD/MDR



- Precision and accuracy of fit via digital shaping
- Natural color layering – aesthetically sophisticated
- Low water absorption – resistant to deposits
- Good polishing properties – high degree of wearing comfort
- High resistance to breakage and bending – safety and resilience



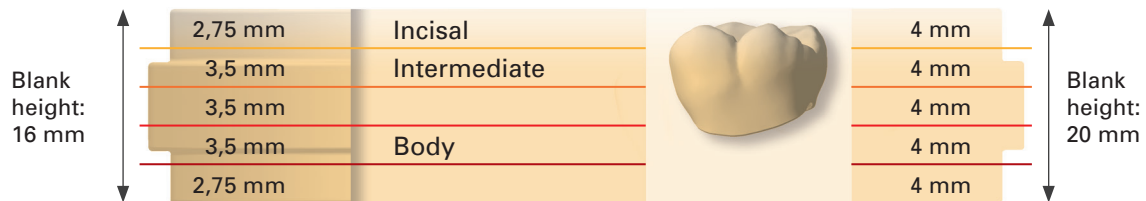
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# DDpolyXML

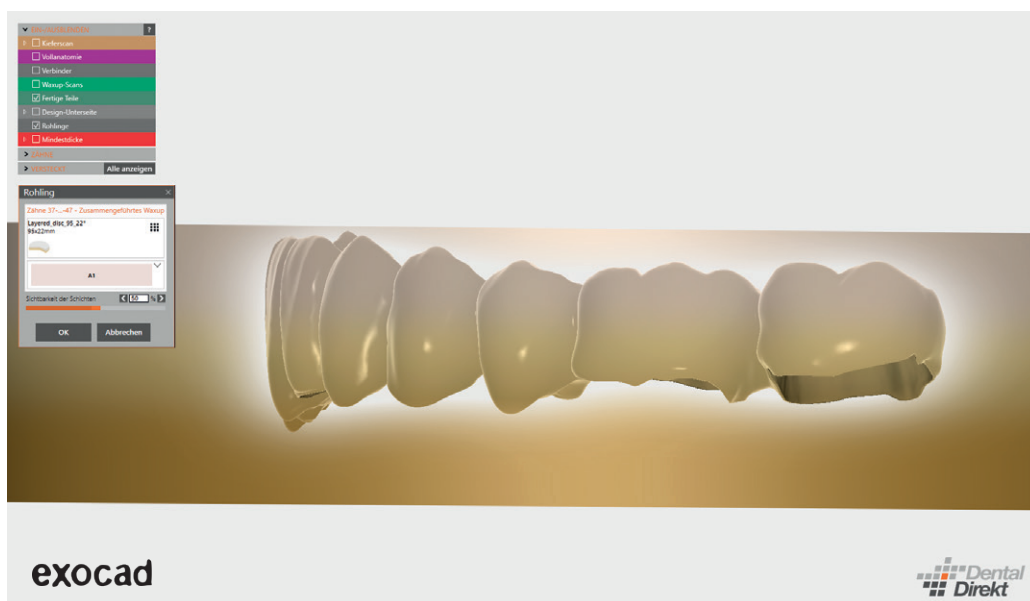
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## Layer concept

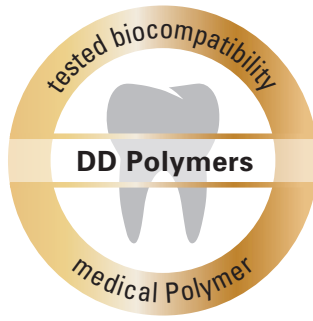
The 5 layers are created using the Selective Injection Compression Moulding (SICM) process. The automated technology ensures high reproducibility. The height distribution of the layers gives you optimal nesting flexibility.



- Available in 6 VITA Colors: A1, A2, A3, B0, B3, and C2
- 5 layers for a natural color gradient
- Ø 98.5 mm blanks with 2 heights: 16 and 20 mm



The exocad® "production blank" module or nesting with DD smartCAM 2.0 makes it possible to individually adjust the degree of translucency in the incisal area of the restoration



DD poly X ML is free of toxic or allergenic substances according to ISO 10993-5.

## Indication: Long-term temporary restorations

- Temporary crowns in the anterior and posterior tooth area
- Temporary bridges in the anterior and posterior tooth area with a maximum of 2 connected pontics
- Temporary implant-supported restorations
- Maximum recommended wearing time without check-up by the dentist: 12 months

DD poly X ML fulfils the requirements according to:

Test methods	ISO 10477 Polymer-based crown and veneering materials			ISO 20795 Denture base polymers	
	Flexural strength (MPa)	Water absorption ( $\mu\text{g}/\text{mm}^3$ )	Solubility ( $\mu\text{g}/\text{mm}^3$ )	Modulus of elasticity (Mpa)	Residual monomer conten (%)
Requirement	$\geq 50$	$\leq 40$	$\leq 7,5$	$\geq 1500$	$\leq 2,2$
<b>DDpoly X ML</b>	<b>90</b>	<b>25</b>	<b>0,0</b>	<b>2300</b>	<b>&lt; 2</b>

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# DDpoly X ML

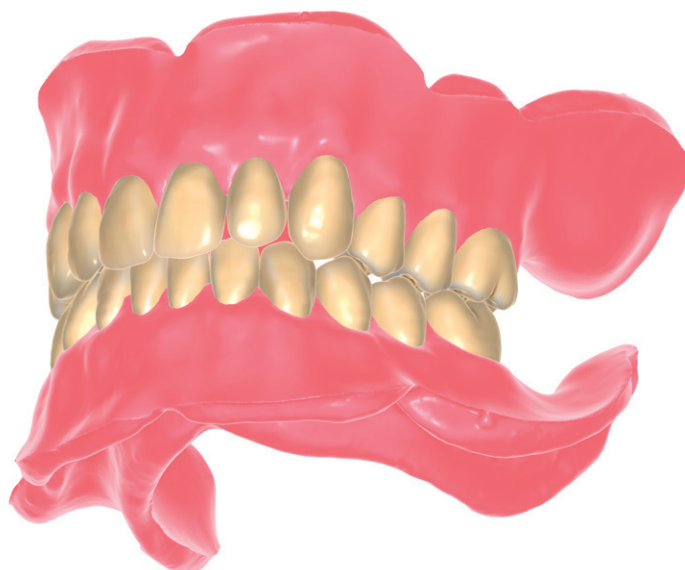
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## Indication: artificial denture teeth

Due to its outstanding properties, such as color stability, abrasion resistance, and bond strength with denture base polymers, our PMMA multilayer is also suitable for milling artificial teeth and bridges for dental prostheses. Permanent use for more than 12 months is possible with an annual check-up at the dentist.

DD poly X ML fulfils the requirements according to:

	ISO 22112 Artificial teeth for dental prostheses			
Test methods	Color stability	Resistance to discoloring, deformation, and cracking	Bond strength with denture base polymers	Porosity and other defects
<b>DDpoly X ML</b>	✓	✓	✓	✓



Guided workflow for designing with the exocad® DD Full Denture module.

# DDpolyXML98

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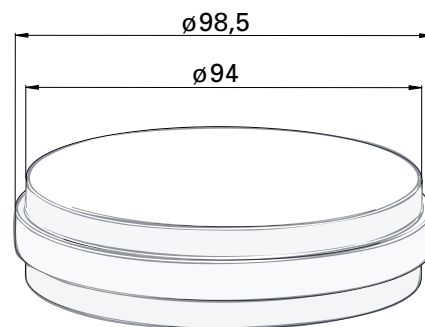
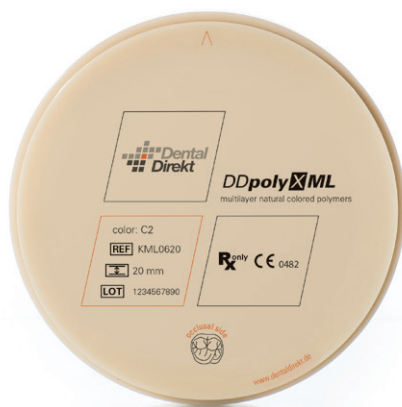
## Your benefits:

- 5 polymerized layers
- biocompatible – low solubility
- industrially polymerized – low residual monomer content
- high fracture resistance and flexural load
- plaque resistant – low water absorption – dense structure
- good polishing properties and abrasion resistance

Technical Data	
Material	Polymethyl methacrylate (PMMA)
Classification	Class IIa according to MDD/MDR
Indication	suitable for making removable or temporary dental structures such as crowns and bridges (For temporary restorations, the material is indicated for the oral cavity up to 12 month.)
Flexural strength ISO 10477	90 MPa
CAM system	open systems for Ø 98,5 mm blanks

Chemical Composition [Weight %]	
Polymethyl methacrylate (PMMA)	> 99
Coloring pigments	< 1

Consult instructions for use



Height	A1	A2	A3	B0	B3	C2
16 mm	KML0116	KML0216	KML0316	KML0416	KML0516	KML0616
20 mm	KML0120	KML0220	KML0320	KML0420	KML0520	KML0620

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