

sagemax



CAD/CAM PRODUCTS



**FOR**  
CAD/CAM MOVERS





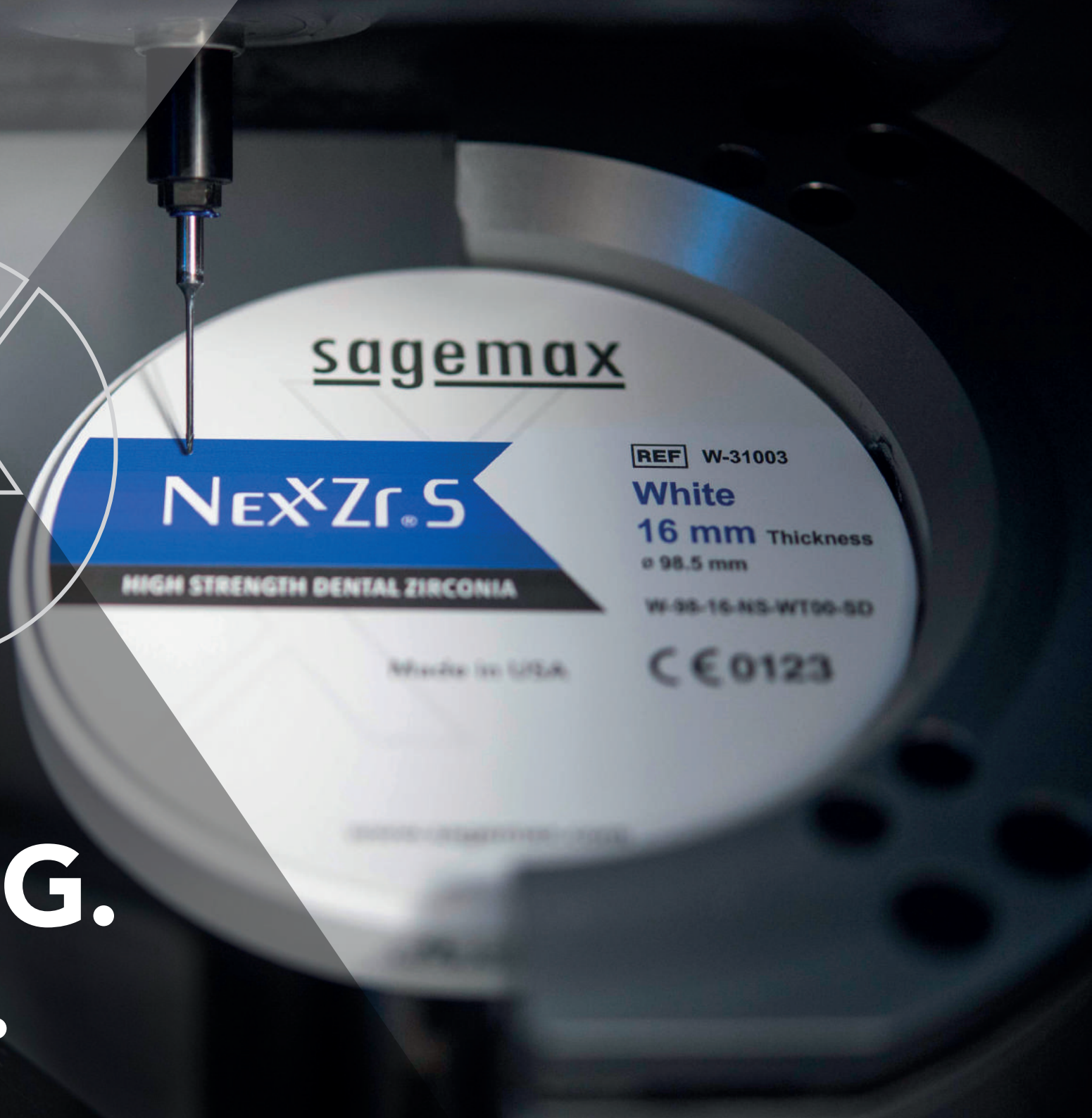
## NexxZr Zirconia

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## NexxZr Tools

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Sagemax Bioceramics, Inc. is one of the world's leading dental manufacturers and suppliers of zirconia. Founded in 2006, the company is a rapidly growing provider of esthetic zirconia products for leading dental CAD / CAM systems. The development of materials and production takes place in Federal Way, Washington. The Sagemax development team has over 15 years of experience in preparing and processing zirconia powders. This experience is reflected in the unique manufacturing and coloring process. The result is zirconia restorations with high esthetics.



**STRONG.  
WHITE.**

# NexxZr S – strong. white.

NexxZr S is a dental zirconia (Y-TZP ZrO<sub>2</sub>) with a very high flexural strength of 1370MPa. The simultaneously high opacity value is ideal for discolored stumps or hybrid restorations on titanium bases.

NexxZr S can be used as a framework material with brush or dipping infiltration. All-ceramic veneering is possible with the common all-ceramic systems (see CET value).

**NexxZr S - a strong zirconia for fixed and implant-supported prosthetics.**

**High opacity  
for discolored  
stumps**

**High processing comfort  
easy to mill**

**Flexibility in processing  
for fixed and implant-  
supported prosthetics**



Single-tooth restorations



3-unit / multi-unit bridges



Implant-supported restorations



Anatomically reduced crowns and bridges



# TRANSLUCENT. 20 COLORS.



**NexxZr T Coloring Liquids**  
16 A-D Colors / 5 Effect Colors

# NexxZr T – translucent. 20 colors.

NexxZr T is a dental zirconia (Y-TZP ZrO<sub>2</sub>) for monolithic restorations from single-tooth to multi-unit bridge restoration. It impresses with its perfect balance between translucency and strength (1270MPa) for the production of esthetic all-ceramic restorations. The soft material before sintering ensures an effortless manufacturing process.

NexxZr T white can be customized individually by brush or dipping infiltration (NexxZr T Coloring Liquids) or processed as a preshaded variant (16 A-D shades, 3 Bleach shades). All-ceramic veneering is possible with the common all-ceramic systems (see CET value).

## NexxZr T - a translucent zirconia for individual esthetics.



Proven Esthetics  
Dental  
Advisor  
Award



Comprehensive color selection  
20 colors  
(16 A-D, 3 Bleach, white)

Maximum  
variety of indications



Single-tooth restorations



3-unit / multi-unit bridges



Implant-supported restorations



Anatomically reduced crowns and bridges



**STRONG.  
ESTHETIC.**



# NexxZr<sup>+</sup> – strong. esthetic.

NexxZr<sup>+</sup> is a dental zirconia (Y-TZP ZrO<sub>2</sub>) for highly translucent, monolithic restorations. NexxZr<sup>+</sup> white offers with 1000MPa (preshaded 880MPa) an outstanding high flexural strength combined with high translucency.

The soft material before sintering ensures an effortless manufacturing process. NexxZr<sup>+</sup> white can be customized individually by brush or dipping infiltration (NexxZr<sup>+</sup> Coloring Liquids) or processed as a preshaded version (6 A-D shades). All-ceramic veneering is possible with the common all-ceramic systems (see CET value).

**NexxZr<sup>+</sup> - a high translucent zirconia for perfect esthetics.**



**Outstanding esthetics**  
translucent and  
high-strength

**Extensive color selection**  
7 colors (white, 6 A-D)

**Wide range of indications**  
from single-tooth restoration  
to multi-unit bridge



Single-tooth restorations



3-unit / multi-unit bridges\*



Implant-supported restorations



Anatomically reduced crowns and bridges

\* preshaded: maximum 3-unit



**ESTHETIC.  
MULTILAYER.**

# NexxZr<sup>+</sup> Multi – esthetic.multilayer.

NexxZr<sup>+</sup> Multi is a polychromatic dental zirconia (Y-TZP ZrO<sub>2</sub>) for the production of esthetic, monolithic restorations with an integrated color grading.

The integrated color gradient and 880MPa flexural strength enable the efficient production of single-tooth restorations and bridges up to 3 units in the anterior and posterior region. The application of all-ceramic glaze paste can be done with the common all-ceramic systems (see CTE value).

**NexxZr<sup>+</sup> Multi - high translucent multilayer zirconia.**

**Efficiency**  
integrated color gradient

**Esthetics**  
highly translucent and  
polychromatic

**Color selection**  
7 colors incl. gradient



Single-tooth restorations



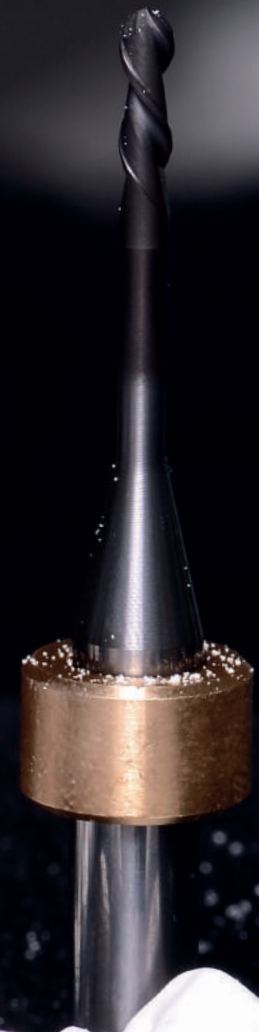
3-unit / multi-unit bridges



Implant-supported restorations



Anatomically reduced crowns and bridges



**PERFECT.  
MILLING.**



# NexxZr Tool – perfect. milling.

NexxZr Tool is a powerful portfolio of dental milling tools. The tool geometries are perfectly matched to the NexxZr zirconia portfolio and enable longer tool lifetime and precise milling results.

The portfolio consists of NexxZr Tool U with an uncoated surface and NexxZr Tool D with a special diamond coating for extremely long tool lifetime.

## NexxZr Tool U (Uncoated)

- Solid carbide milling tool
- Double-edge radius cutter
- Optimized cutting areas
- Suitable for ZrO<sub>2</sub>, Wax, PMMA

ZR02

WAX

PMMA

## NexxZr Tool D (Diamond Coated)

- Carbide cutter with special coating for processing of highly abrasive ZrO<sub>2</sub> materials
- Layer thickness approx. 5µm (not electrically conductive)
- Double-edge radius cutter
- Very long tool lifetime

ZR02

High edge sharpness  
more details

Long tool lifetime  
Cost reduction and  
comfort

## NexxZr Tool U



## NexxZr Tool D



for AmannGirrbach

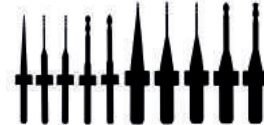
for imes-icore

for Roland

for vhf

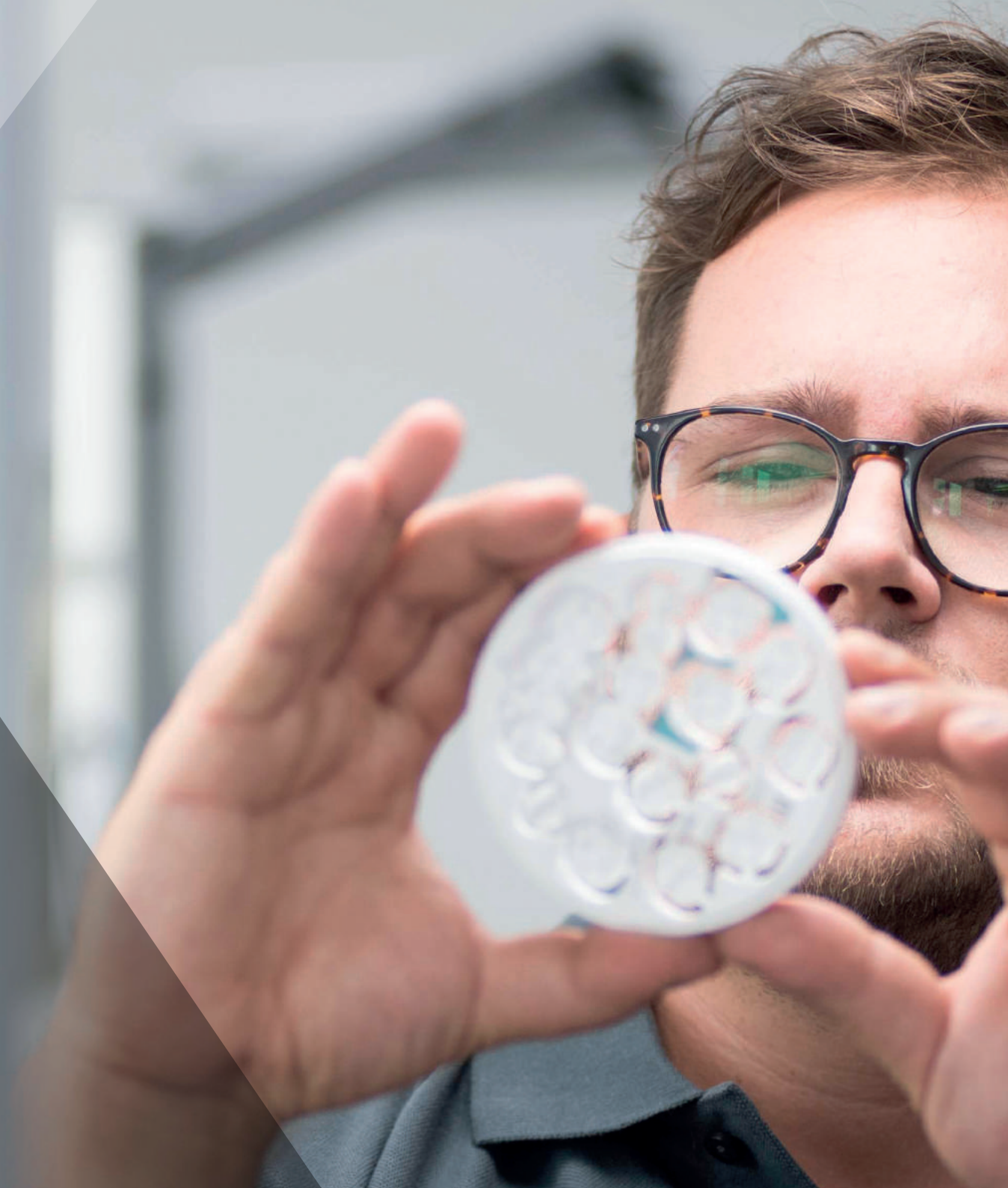
for Zenotec

for Zirkozahn





**QUALITY**  
WHAT WE FULFILL





## EXPERIENCE

Sagemax Bioceramics, Inc. is one of the leading dental zirconia manufacturers in the world since 2006.



## ESTHETICS

2018 & 2019 Winner of 'The Dental Advisor Award' in the category Long-Term Performer: Esthetic Zirconia.



## QUALITY

High quality standards according to TÜV SÜD / EN ISO 13485, Medical Device Single Audit Program (MDSAP) and MDD 93/42/ECC.

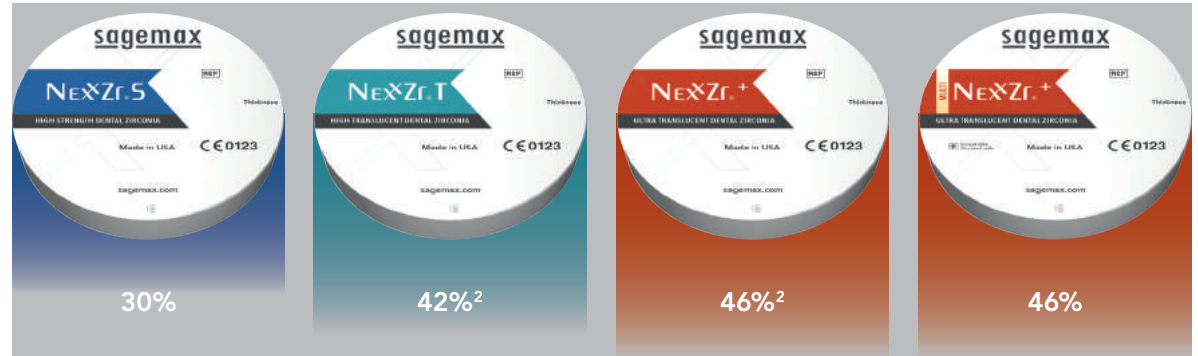


# TECHNICAL DATA

OVERVIEW



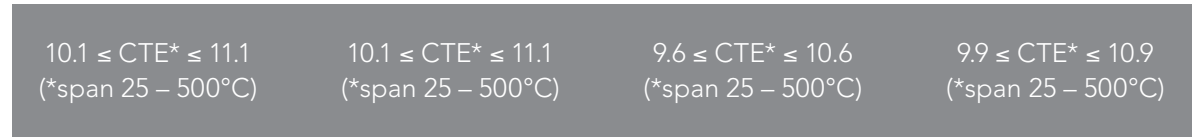
## TRANSLUCENCY [1-CR]\*100



## BIAXIAL FLEXURAL STRENGTH [MPa]<sup>1</sup>



## LINEAR THERMAL EXPANSION / CTE [ $10^{-6} K^{-1}$ ]



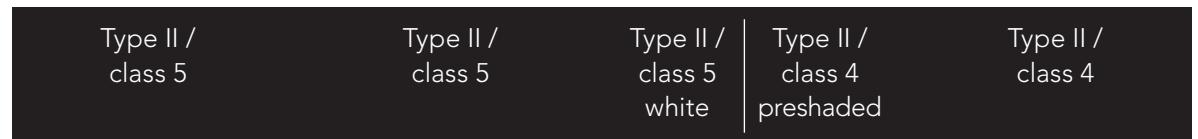
## COLORS



## FRACTURE TOUGHNESS [ $MPa \cdot m^{1/2}$ ]<sup>1</sup>



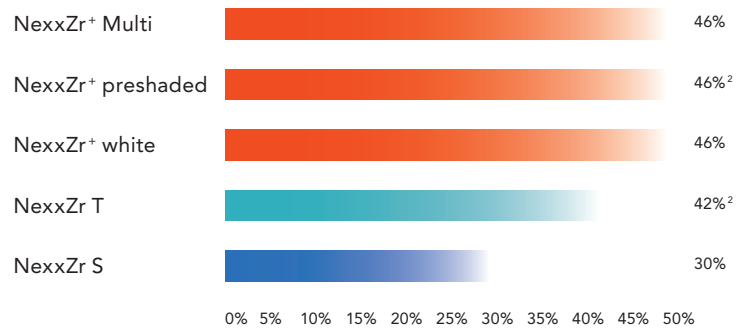
## CLASS



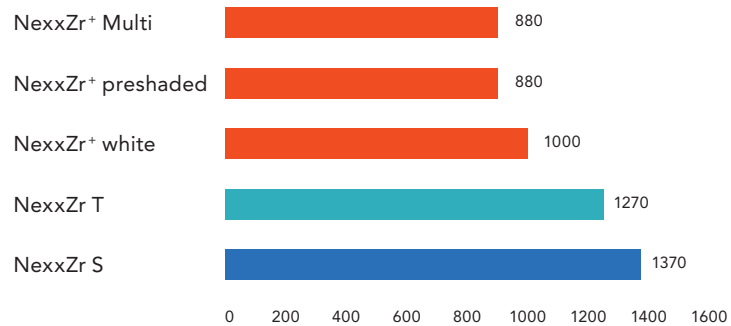
<sup>1</sup> Typical values acc. to EN ISO 6872 (polished specimen)

<sup>2</sup> Preshaded discs show lower values

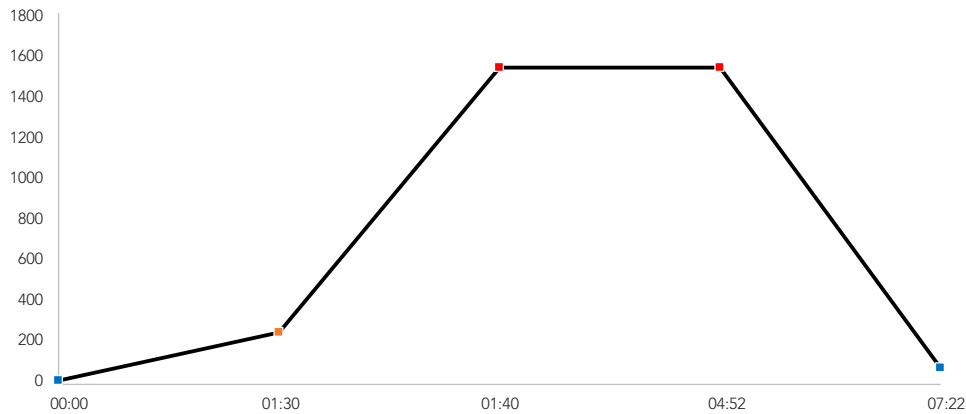
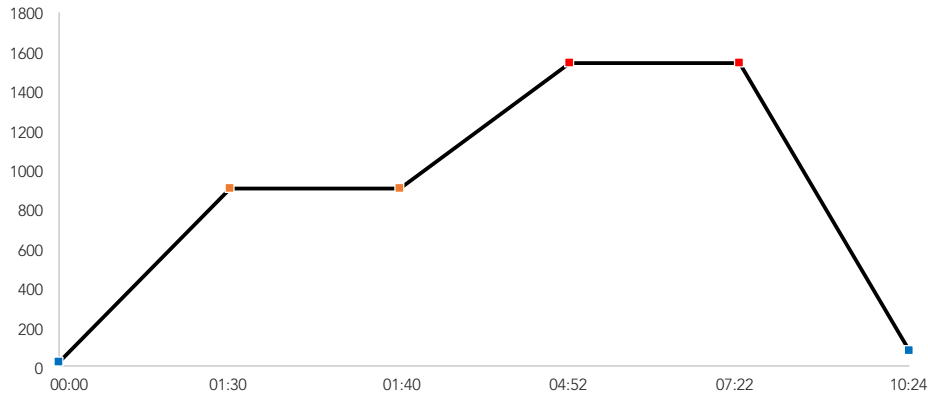
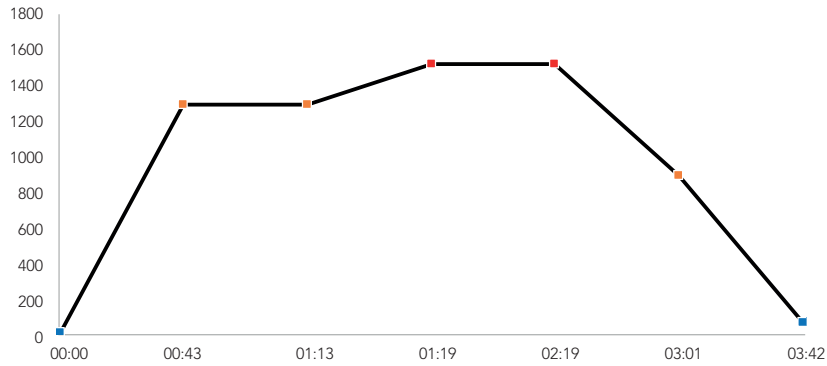
## TRANSLUCENCY [1-CR]\*100



## BIAXIAL FLEXURAL STRENGTH [MPa]<sup>1</sup>



# NexxZr S, NexxZr T, NexxZr +



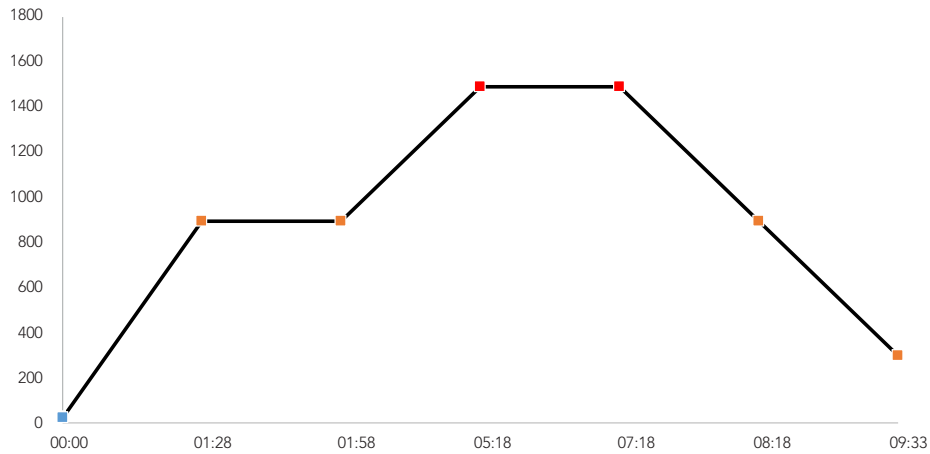
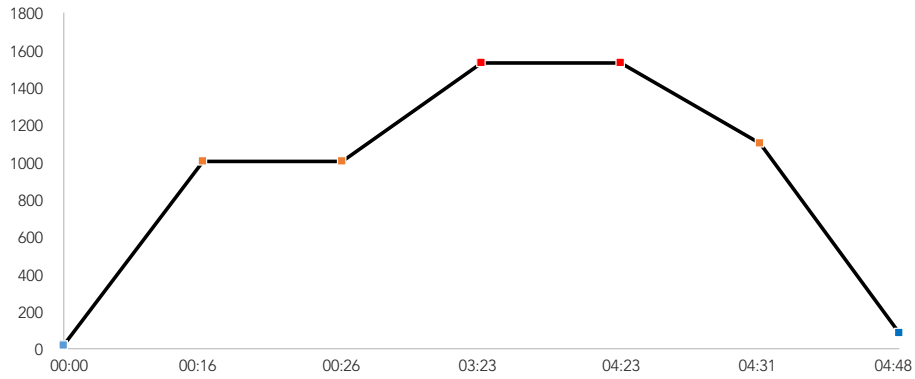
	Number of units	Duration in h	Phase	Temperature in °C	Temperature in °F	Heating/cooling rate in °C/(min)	Heating/cooling rate in °F/(min)	Holding time (min)
			<b>STANDARD</b>					
1 - 5	~ 3,7	Phase 1	20 - 1300	68 - 2372	30	54	30	
		Phase 2	1300 - 1530	2372 - 2786	40	72	60	
		Phase 3	1530 - 900	2786 - 1652	15	27	-	
		Phase 4	900 - 80	1652 - 176	20	36	-	
5 - 10	~ 5,2	Phase 1	20 - 1300	68 - 2372	30	54	60	
		Phase 2	1300 - 1530	2372 - 2786	40	72	120	
		Phase 3	1530 - 900	2786 - 1652	15	27	-	
		Phase 4	900 - 80	1652 - 172	20	36	-	

	Number of units	Duration in h	Phase	Temperature in °C	Temperature in °F	Heating/cooling rate in °C/(min)	Heating/cooling rate in °F/(min)	Holding time (min)
			<b>LONG</b>					
1 - 20	~ 10,8	Phase 1	20 - 900	68 - 1652	10	18	10	
		Phase 2	900 - 1540	1652 - 2804	3	5.4	150	
		Phase 3	1540 - 80	2804 - 176	8	14.4	-	
>21	~ 12,8	Phase 1	20 - 900	68 - 1652	10	18	10	
		Phase 2	900 - 1540	1652 - 2804	3	5.4	210	
		Phase 3	1540 - 80	2804 - 176	8	14.4	-	

	Number of units	Duration in h	Phase	Temperature in °C	Temperature in °F	Heating/cooling rate in °C/(min)	Heating/cooling rate in °F/(min)	Holding time (min)
			<b>OVER NIGHT</b>					
unlimited	~ 14,3	Phase 1	20 - 250	68 - 482	2	3.6	-	
		Phase 2	250 - 1530	482 - 2786	4	7.2	240	
		Phase 3	1530 - 80	2786 - 176	8	14.4	-	



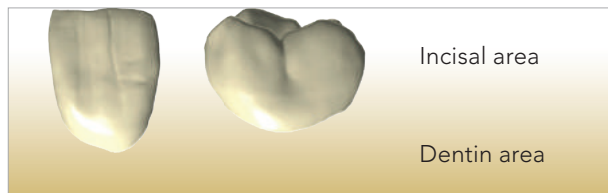
# NexxZr + Multi



SPEED	Number of units	Duration in h	Phase	Temperature in °C	Temperature in °F	Heating/cooling rate in °C/(min)	Heating/cooling rate in °F/(min)	Holding time (min)
	1-5	~ 3,6	Phase 1	20 - 1000	68 - 1832	60	108	10
			Phase 2	1000 -1530	1832 - 2732	3	5.4	60
			Phase 3	1530 - 1100	2732 - 1832	50	90	-
			Phase 4	1100 - 80	1100 - 176	60	108	-

LONG	Number of units	Duration in h	Phase	Temperature in °C	Temperature in °F	Heating/cooling rate in °C/(min)	Heating/cooling rate in °F/(min)	Holding time (min)
	unlimited	~ 9,5	Phase 1	20 - 900	68 - 1652	10	18	30
			Phase 2	900 -1500	1652 - 2732	3	5.4	120
			Phase 3	1500 - 900	2732 - 1652	10	18	-
			Phase 4	900 - 300	1652 - 572	8	14.4	-

## CAM Positioning:



For an optimal color gradient the incisal / occlusal positioning of the restoration is recommended




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