

# SCHOTT® DentalGlass | New additions

## Product Information

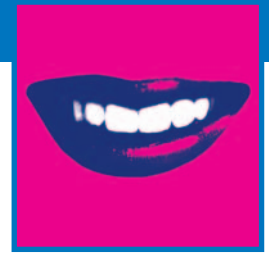
It is our constant concern to offer you the most comprehensive range of inorganic fillers. Therefore we want to present you with our new Zirconium containing glasses.

## Advantages

- Greater variety of compositions and refractive indices
- Outstanding transparency
- Best radiopacities

Glass	Refractive index $n_d$											RO (digital method)					Remarks	Application							
	value	1.47	1.48	1.49	1.50	1.51	1.52	1.53	1.54	1.55	1.56	1.57	1.58	1.59	1.60	...1.83			value	0	400	800	1200	1600	2000
G018-307	1.50				●	<b>NEW</b>											340	■						Zr-containing, very low refractive index	Composite
G018-163	1.50				●												260	■						Sr- and F-containing, very low refractive glass	Composite
G018-093	1.51					●											330	■						Sr- and F-containing, low refractive glass	Composite
GM39923	1.52						●										560	■						Ba- and F-containing, low refractive glass	Composite
GM32087	1.52					●											370	■						Sr-containing, low refractive glass	Composite
G018-308	1.53				<b>NEW</b>		●										560	■						Zr-containing, low refractive glass	Composite
GM27884	1.53						●										560	■						Ba-containing, low refractive glass	Composite
GM31685	1.53						●										170	■						Low refractive index glass ceramic	Composite
G018-053	1.53						●										700	■						Ba- and F-containing, low refractive glass	Composite
G018-309	1.55								●								700	■						Zr-containing, high refractive glass	Composite
8235	1.55								●								760	■						Ba-containing, without F	Composite
G018-186	1.55								●								800	■						Ba- and F-containing, high refractive glass	Composite
GM31684	1.58																410	■						High refractive index glass ceramic	Composite
G018-310	1.60																780	■						Zr-containing, high refractive index	Composite
G018-159	1.61																840	■						Sr- and Zr-containing, high refractive index	Composite
G018-161	1.83																2150	■						Extremely high radiopacity, Zr containing	Composite
GM35429	1.47	●															90	■						High fluoride containing Ca-glass	Glass ionomer cement
G018-090	1.51					●											460	■						High fluoride and Zn-containing Sr-glass	Glass ionomer cement, Compomer
G018-117	1.52					●											490	■						High fluoride and Zn-containing Sr-glass	Glass ionomer cement, Compomer

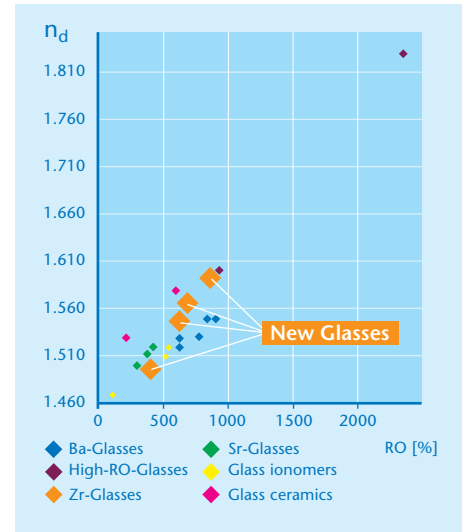
Range of glasses



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## Materials Data:

		GO18-307	GO18-308	GO18-309	GO18-310
Index of refraction $n_d$	10 <sup>-6</sup>	1.50	1.53	1.55	1.60
Expansion coefficient (-30/+70 °C)	10 <sup>-6</sup> /K	4	7	6	5
Density	g/cm <sup>3</sup>	2.5	2.7	2.9	3.1
Transformation temperature (ISO7884-8)	°C	550	633	630	680
Radiopacity measured on the basis of ISO 4049 (digital measurement)	mm	Approx. (350%)	Approx. (560%)	Approx. (700%)	Approx. (780%)
Hydrolytical resistance (DIN ISO 719)		1	1	1	1
Composition (approx. values) [weight-%]	SiO <sub>2</sub>	65	55	55	45
	ZrO <sub>2</sub>	< 5	< 5	< 5	5
	CaO	-	-	< 10	-
	ZnO	-	-	-	< 5
	SnO	-	< 5	< 5	-
	B <sub>2</sub> O <sub>3</sub>	15	10	< 10	-
	Al <sub>2</sub> O <sub>3</sub>	< 5	< 10	< 5	20
	La <sub>2</sub> O <sub>3</sub>	5	10	< 10	20
	Ta <sub>2</sub> O <sub>5</sub>	-	-	-	< 5
	Li <sub>2</sub> O	-	-	-	< 5
	Na <sub>2</sub> O	-	-	< 5	-
	K <sub>2</sub> O	5	15	< 5	-
	Cs <sub>2</sub> O	10	10	15	< 5
Young's Modulus	GPa	-	-	77	92



RO (digital measurement)

## Grain sizes available:

Type	Description	Size	Grain size		Approx. Surface [m <sup>2</sup> /g]
			d <sub>50</sub> [μm]	d <sub>99</sub> [μm]	
K	Standard grind	K1	30 ± 10	≤ 150	-
		K2	16 ± 4	≤ 100	-
		K3	10 ± 2	≤ 63	-
		K4	7 ± 1	≤ 40	-
		K5	5 ± 1	≤ 40	0.5
		K6	3 ± 1	≤ 40	0.6
SM	Special grind with narrow distribution	SM3.5	3.5 ± 1	≤ 13	2
UF	Special grind with narrow distribution and extremely low abrasion level	UF2.0	2.0 ± 0.25	≤ 12	3
		UF1.5	1.5 ± 0.25	≤ 5	5
		UF1.2	1.2 ± 0.2	≤ 5	7
		UF1.0	1.0 ± 0.2	≤ 4	8
		UF0.7	0.7 ± 0.2	≤ 3	13
		UF0.4	0.4 ± 0.1	≤ 3	23

Grain size description d<sub>50</sub> (d<sub>99</sub>): Equivalent diameter, for which the distribution sum has the value of 50% (99%).

## For more information:

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