

SCHOTT® DentalGlass | New additions

Product Information

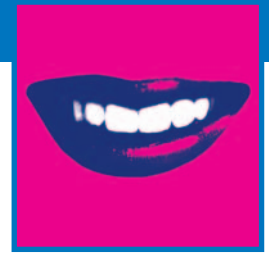
It is our constant concern to offer you the most comprehensive range of inorganic fillers. Therefore we want to present you with our new Zirconium containing glasses.

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				●		NEW										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						NEW	●									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

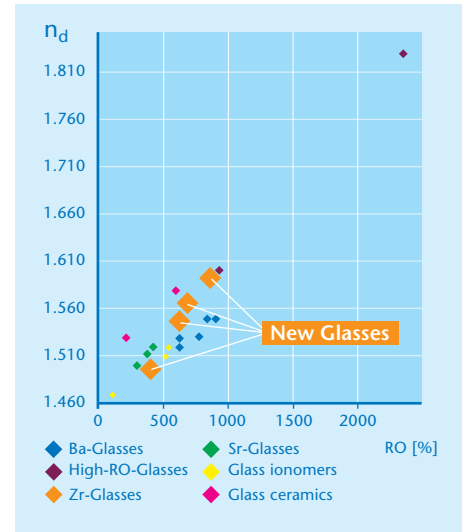
Range of glasses



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Materials Data:

		GO18-307	GO18-308	GO18-309	GO18-310
Index of refraction n_d	10 ⁻⁶	1.50	1.53	1.55	1.60
Expansion coefficient (-30/+70 °C)	10 ⁻⁶ /K	4	7	6	5
Density	g/cm ³	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 ₂	65	55	55	45
	ZrO ₂	< 5	< 5	< 5	5
	CaO	-	-	< 10	-
	ZnO	-	-	-	< 5
	SnO	-	< 5	< 5	-
	B ₂ O ₃	15	10	< 10	-
	Al ₂ O ₃	< 5	< 10	< 5	20
	La ₂ O ₃	5	10	< 10	20
	Ta ₂ O ₅	-	-	-	< 5
	Li ₂ O	-	-	-	< 5
	Na ₂ O	-	-	< 5	-
	K ₂ O	5	15	< 5	-
	Cs ₂ 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 ² /g]
			d ₅₀ [μm]	d ₉₉ [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 d₅₀ (d₉₉): Equivalent diameter, for which the distribution sum has the value of 50% (99%).

For more information:

SCHOTT Electronic Packaging

A Division of SCHOTT North America, Inc.
122 Charlton Street
Southbridge, MA 01550
USA

Phone: +1 508 765-3370
Fax: +1 508 765-3377
epackaging@us.schott.com
www.us.schott.com/dentalglass

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