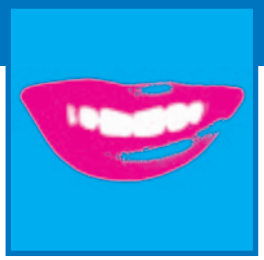


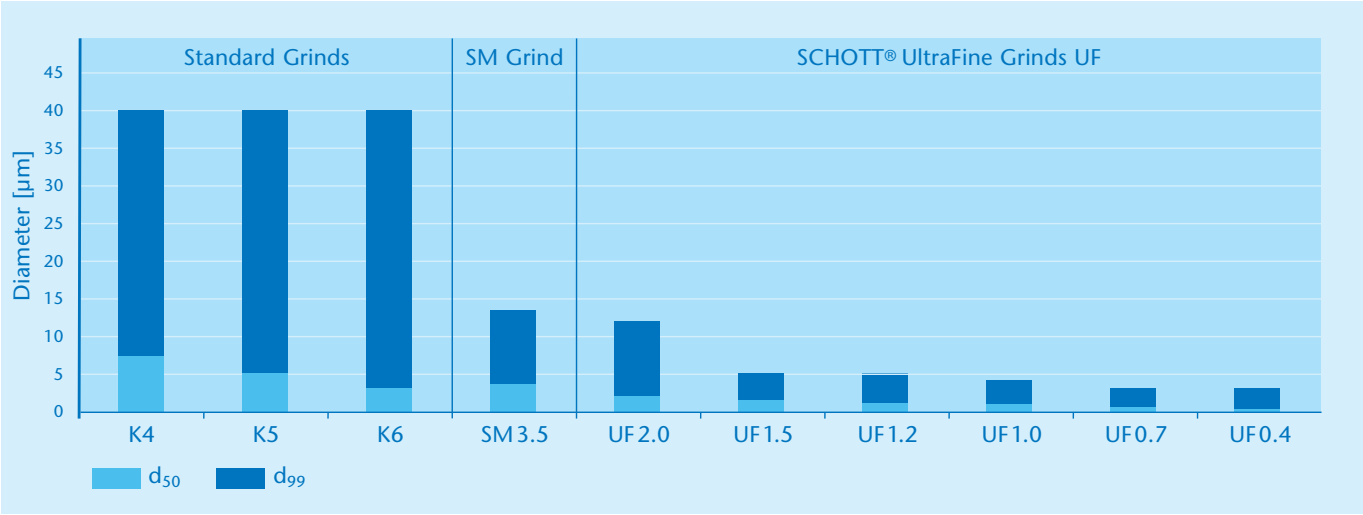
SCHOTT® DentalGlass | Inert

Grain Sizes

To allow you to create the perfect filler mix for your material we offer our glasses in a variety of grain sizes. All our inert dental glasses can be supplied to you in grain sizes down to 0.4 µm (d_{50}).

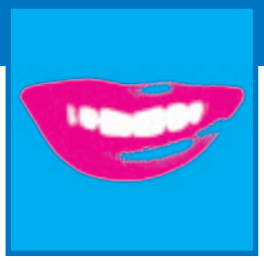
Type	Description	Size	Grain size		Approx. Surface [m²/g]
			d_{50} [µm]	d_{99} [µm]	
K	Standard grind	K1	30 ± 10	≤ 150	-
		K2	16 ± 4	≤ 100	-
		K3	10 ± 2	≤ 63	-
		K4	7 ± 1	≤ 40	-
		K5	5 ± 1	≤ 40	0.5
		K6	3 ± 1	≤ 40	0.6
SM	Special grind with narrow distribution	SM3.5	3.5 ± 1	≤ 13	2
UF	Special grind with narrow distribution and extremly 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_{50} (d_{99}): Equivalent diameter, for which the distribution sum has the value of 50% (99%).



Graphical display of d_{50} and d_{99}

SCHOTT
glass made of ideas



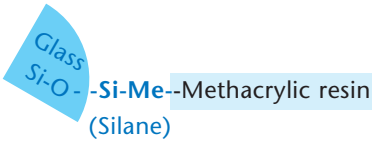
SCHOTT® DentalGlass | Inert

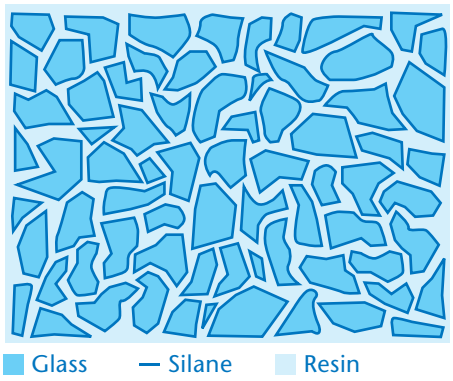
Grain Sizes

Silanation – Our additional service for you:

As an additional service for you we offer to supply our inert dental glasses silanated. A silane layer will allow the bonding of the non-reactive dental glass to the resin components of your material.

Silane: Organic compound that chemically reacts with hydrophilic glass surface and makes it hydrophobic. The other end of the silane can chemically react with the hydrophobic resin.





Grain sizes for Silanated Inert Dental Glasses

Type	Description	Size	Grain size		Silane addition [weight-%]
			d_{50} [µm]	d_{99} [µm]	
K sil	Standard grind	K5 0.5% Silane	5 ± 1	≤ 40	0.5
		K6 0.6% Silane	3 ± 1	≤ 40	0.6
SM sil	Special grind with narrow distribution, silanated	SM3.5 1.0% Silane	3.5 ± 1	≤ 13	1.0
UF sil	Special grind with narrow distribution and extremly low abrasion level, silanated	UF2.0 1.0% Silane	2.0 ± 0.25	≤ 12	1.0
		UF2.0 1.4% Silane	2.0 ± 0.25	≤ 12	1.4
		UF1.5 1.6% Silane	1.5 ± 0.25	≤ 5	1.6
		UF1.5 2.3% Silane	1.5 ± 0.25	≤ 5	2.3
		UF1.2 2.6% Silane	1.2 ± 0.2	≤ 5	2.6
		UF1.2 3.0% Silane	1.2 ± 0.2	≤ 5	3.0
		UF1.0 3.2% Silane	1.0 ± 0.2	≤ 4	3.2
		UF1.0 4.6% Silane	1.0 ± 0.2	≤ 4	4.6
		UF0.7 4.2% Silane	0.7 ± 0.2	≤ 3	4.2
		UF0.7 6.0% Silane	0.7 ± 0.2	≤ 3	6.0
		UF0.4 9.4% Silane	0.4 ± 0.1	≤ 3	9.4

The coupling agent used is γ-Methacryloxypropyl-tri-methoxy-Silane. Stated percentage of silane addition: x wt % of unhydrolised silane + (100-x) wt % of powder = 100 wt % of batch.

For more information:

Special Glass Division of
SCHOTT Electronic Packaging GmbH
Christoph-Dorner-Strasse 29
84028 Landshut
Germany

Phone: +49 (0)871/826-702
Fax: +49 (0)3641/28889-096
Sandra.Blomer@schott.com
www.schott.com/epackaging

SCHOTT
glass made of ideas