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Lighting

	Type	Grades	Sizes - OD mm	Type Description	OH Content
Lighting	A	SG25	2-40	Mercury, tungsten-halogen	<5 ppm
	B	SG25	4-40	Metal-halide, speciality	<1 ppm
	N	SG25	4-40	High (OH), unbaked	<100 ppm
	BZ	SG26	10-40	Ozone-free (UV absorbing)	<1 ppm
Mid range sizes			41-89	General use	<30 ppm
Semiconductor	SC	SG25	4-40	1.0-3.0 wall	<30 ppm
	SC	SG25, SG27	90-100	Direct draw, 2.5-4.5 wall	<30 ppm
	SCH	SG25, SG27	125-210	Direct draw, 5.0-6.5 wall	<30 ppm
	SCR	SG25, SG27	150-500	Resize, 3.0-7.0 wall	<35 ppm
	SCR	SG28, SG29	150-500	Resize, 3.0-7.0 wall	<10 ppm
	Baked	SG25, SG27	-----	-----	<10 ppm

All materials can be used for general glassblowing fabrication.
 At Multi-lab large stocks are held across the complete range of materials.

Dimensional Tolerances

Type	Size range, OD mm	ID ±	OD ±	Oval max	Wall ±	Siding max
A,B,BZ,SC	4-40	2.5%	---	2%	10%	10%
SC,SCH	95-216	---	2mm	1.0%	10%	15%
SCR(*)	150-350	---	2mm	0.5%	20%	20%
SCR	351-500	---	2mm	0.5%	25%	25%

Mid range fused quartz tubes (41-80) dimensional tolerance given on request.
 Tighter tolerances can be supplied on request.

Chemical Analysis, ppm (typical)

Quartz grade	Al	Fe	Na	K	Li	Ca	Mg	Cu	Mn	Cr	B	Zr	Ti
SG25	15	0.3	0.7	0.6	0.7	0.6	0.2	<0.2	<0.1	<0.1	<1.0	1.0	0.9
SG26	15	0.3	0.7	0.6	0.7	0.6	0.2	<0.2	<0.1	<0.1	<1.0	1.0	100.0
SG27	9	0.3	0.2	0.2	0.2	0.5	<0.2	<0.2	<0.1	<0.1	<1.0	0.5	1.2
SG28	15	0.3	0.1	0.6	<0.1	0.6	0.2	<0.2	<0.1	<0.1	<1.0	1.0	0.9
SG29	9	0.3	0.1	0.2	0.1	0.5	<0.2	<0.2	<0.1	<0.1	<1.0	0.5	1.2

Fused Quartz Sintered Discs

Dia	Thick mm	Code Ref	Dia	Thick mm	Code Ref
10	2-3	QDS010	50	4-6	QDS050
15	2-3	QDS015	55	4-6	QDS050
20	3-5	QDS020	60	4-6	QDS060
25	3-5	QDS025	70	4-6	QDS070
30	3-5	QDS030	80	4-6	QDS080
35	3-5	QDS035	90	4-6	QDS090
40	3-5	QDS040	100	6-10	QDS0100
45	3-5	QDS040	100	6-10	QDS0110

Porosity specification

Porosity grade	00	0	1	2	3	4
Average pore size - microns	300-200	200-150	150-90	90-40	40-15	15-4

Quartz Sockets

These joints conform to ISO R383: 1965 and BS 572/60

Socket size	Approx. tube bore mm	Approx. tube dia. mm	Overall length mm		Cat No
10/19	10	12	100	B/10	QJS/10
14/23	14	16	100	B/14	QJS/14
19/26	19	22	100	B/19	QJS/19
24/29	24	27	100	B/24	QJS/24
29/32	29	32	120	B/29	QJS/29
34/35	34	37	120	B/34	QJS/34
40/38	40	43	120	B/40	QJS/40
45/40	45	49	120	B/45	QJS/45
50/42	50	54	120	B/50	QJS/50
55/44	55	59	120	B/55	QJS/55
60/46	60	64	120	B/60	QJS/60
65/48	65	69	160	B/65	QJS/65
75/52	75	79	160	B/75	QJS/75
80/54	80	84	160	B/80	QJS/80
85/56	85	89	160	B/85	QJS/85
90/58	90	94	160	B/90	QJS/90
95/60	95	99	160	B/95	QJS/95
100/62	100	104	160	B/100	QJS/100

Larger sizes available on request up to B150 size.

Quartz Cones

These joints conform to ISO R383: 1965 and BS 572/60

Cone size	Approx. tube bore mm	Approx. tube dia. mm	Overall length mm		Cat No
10/19	6	8	100	B/10	QJC/10
14/23	10	12	100	B/14	QJC/14
19/26	14	17	100	B/19	QJC/19
24/29	19	22	100	B/24	QJC/24
29/32	23	26	120	B/29	QJC/29
34/35	27	30	120	B/34	QJC/34
40/38	33	37	120	B/43	QJC/40
45/40	37	41	120	B/45	QJC/45
50/42	41	45	120	B/50	QJC/50
55/44	46	50	120	B/55	QJC/55
60/46	51	55	120	B/60	QJC/60
65/48	56	60	160	B/65	QJC/65
75/52	60	64	160	B/75	QJC/75
70/50	65	69	160	B/75	QJC/75
80/54	70	74	160	B/80	QJC/80
85/56	75	79	160	B/85	QJC/85
90/58	80	84	160	B/90	QJC/90
95/60	85	89	160	B/95	QJC/95
100/62	90	94	160	B/100	QJC/100

Extended cones

Cone size	10 to 19	10 to 34	40 to 85
Extension (mm)	7	10	20

Cup & Ball Joints

Spherical Ground Ball/Cup Joints (BS2761)

Joint size	Nominal spherical dia. (mm)	Nominal tubing dia. (mm)	Nominal length dia. (mm)	Overall length dia. (mm)	Cat no Ball	Cat no Cup
S13/C	12.700	4	8	100	QJB/13C	QJP/13C
S13	12.700	5	7	100	QJB/13	QJP/13
S19	19.050	10	12.5	100	QJB/19	QJP/19
S29	28.575	16	19	100	QJB/29	QJP/19
S35	34.925	23	26	100	QJB/35	QJP/35
S41	41.275	27	30	110	QJB/41	QJP/41
S51	50.800	33	37	110	QJB/51	QJP/51

Quartz Seals

Quartz to Pyrex

Nominal tubing bore mm	Nominal tubing dia. mm	Nominal length of quartz mm	Nominal overall length mm
4	6	50	150
6	8	50	150
8	10	50	100
10	12	50	150
15	18	50	150
20	23	75	160
25	28	75	160
30	33	75	160
35	38	75	160
40	44	75	160
45	49	100	200
50	54	100	200
55	59	100	200
65	69	100	200
75	79	100	200

Intermediate diameters are charged to next size up. Optical windows can be sealed to the ends of graded seals if required.

Available on request: Metal to Pyrex/Quartz - Stainless steel ends - Flexible stainless steel bellows.

Metal type: 54% Fe, 29% Ni, 17% Co.

Quartz Screwthreads

O/D (mm)	13	18	22	28	42
Wall (mm)	1.2	1.5	1.5	1.6	2.0