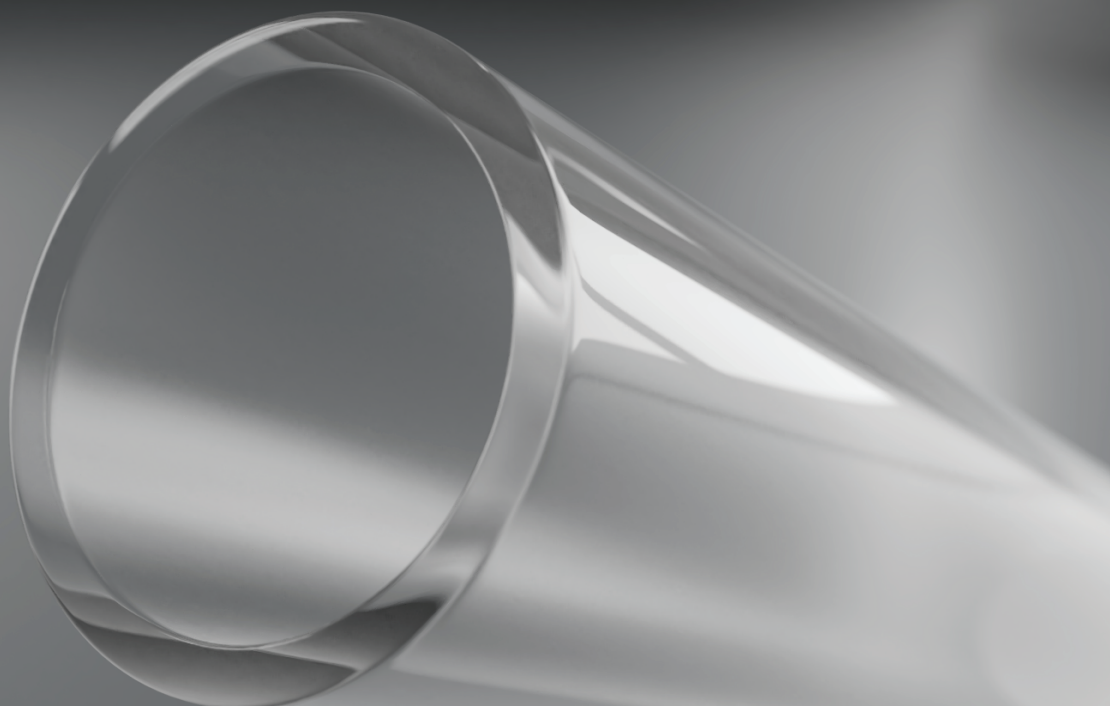


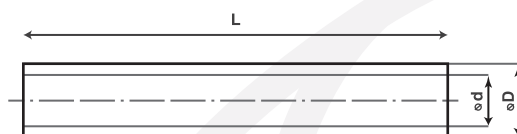


BASIC PROPERTIES

- High chemical purity
- Very low coefficient of thermal expansion
- Very high thermal choc resistance
- 1050°C working condition, 1200°C in peak.
- Shaped when molten, which allows complex shapes.
- Can be welded
- Very good optical properties. UV transmission

SCERAM stocks significant quantities of tubes, allowing great responsiveness and quick delivery.

- Standard length on stock: 1000 to 1500 mm (Longer tubes on demand: up to 4000 mm, depending on outer diameter)
- Dimensions not included in the table can be custom made upon request.
- General tolerances are in compliance with DIN 40680 norm.



SCERAM provides tubes machining services :

- Cutting to requested length
- Hole drilling
- Outer and inner diameter extremities threading
- Extremities outer and inner diameter grinding
- Half tube longitudinal cutting (on limited length)
- Extremities fire polishing
- Customized tolerances upon request

MATERIAL		QUARTZ (GE124)
Chemical Formula		SiO ₂
Aspect / color		White / transparent
Porosity		Impervious
Mechanical		Measuring unit
Poisson's ratio	-	0,17
Hardness Mohs	Mohs	7
Hardness Knoop		>600
Young modulus	GPa	70
Compression resistance	MPa	650-1100
Compression resistance	N/mm ²	1100
Tensile resistance	MPa	48
Flexion resistance	MPa	80
Tensile strength	N/mm ²	48
Tensile strength in usage	N/mm ²	6,9
Torsion modulus	N/mm ²	3,1 x 10 ³
Physical		
Maximum temperature use in neutral atmosphere	°C	1200
Absolute density	g/cm ³	2,2
Electrical resistivity at 20°	Ohm, m	10 ¹⁸
Electrical resistivity	Wcm	6 x 10 ¹⁰
Dielectric strength	kV/mm	25-40
Dielectric constant at 25°C and 1 MHz	Hz	3,8
Thermal		
Softening temperature	°K	1943
Specific heat at 25°	cal/g.°C	0,16
Expansion coefficient	x 10 ⁻⁶ K°	0,58
Linear expansion coefficient 20-500°	x 10 ⁻⁶ /°C	0,45
Thermal conductivity at 20°	W/m.°K	1,40
Thermal shock resistance	Δ T°C	>1400
Optical		
Refractive index		1,4585

**These values are for informational purposes only and do not bind company's responsibility.*

Outer Diam. (in mm)	Thick (in mm)
3	0,5
3	1
4	0,5
4	1
4	1,5
5	1
5	1,5
5	2
6	1
6	1,5
6	2
7	1
7	1,5
7	2
7	2,5
8	1
8	1,5
8	2
9	1
9	1,5
9	2
10	1
10	1,5
10	2
11	1
11	1,5
11	2
12	1
12	1,5
12	2

Outer Diam. (in mm)	Thick (in mm)
13	1
13	1,5
13	2
14	1
14	1,5
14	2
15	1
15	1,5
15	2
16	1
19	2
20	1
20	1,5
20	2
21	1
21	1,5
21	2
22	1
22	1,5
22	2
23	1
23	1,5
23	2
24	1
24	1,5
24	2
25	1
25	1,5
25	2
26	1,5

Outer Diam. (in mm)	Thick (in mm)
26	2
26	2,5
27	1,5
27	2
27	2,5
28	1,5
28	2
28	2,5
29	1,5
29	2
29	2,5
30	1,5
30	2
30	2,5
31	1,5
31	2
31	2,5
32	1,5
32	2
32	2,5
35	2
35	2,5
36	1,5
36	2
36	2,5
37	1,5
37	2
37	2,5
38	1,5
38	2

Outer Diam. (in mm)	Thick (in mm)
38	2,5
39	1,5
39	2
39	2,5
40	1,5
40	2
40	2,5
41	1,5
41	2
41	2,5
42	1,5
42	2
42	2,5
43	1,5
43	2
43	2,5
44	1,5
44	2
44	2,5
45	1,5
45	2
45	2,5
46	1,5
46	2
46	2,5
47	1,5
47	2
47	2,5
50	1,5
50	2