

- Spherical Lenses
- Cylindrical Lenses
- Lens Kits
- Achromatic Doublets
- Multi-Element
- Micro Optics
- Mirrors
- Prisms

Substrates & Windows

- Beamsplitters
- Polarizers
- Filter & Apertures

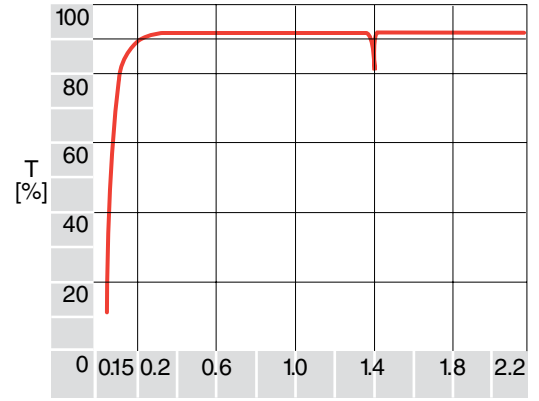
Synthetic fused silica is a manufactured product - and like all other manufactured products is available in a variety of quality levels. Most fused silica is used in the chemical business for containers, and in the electrical industry as insulators.

Fused Silica Windows

- Broad transmission spectrum
- Thermal stability
- Scratch resistant
- Round, square and rectangular sizes available



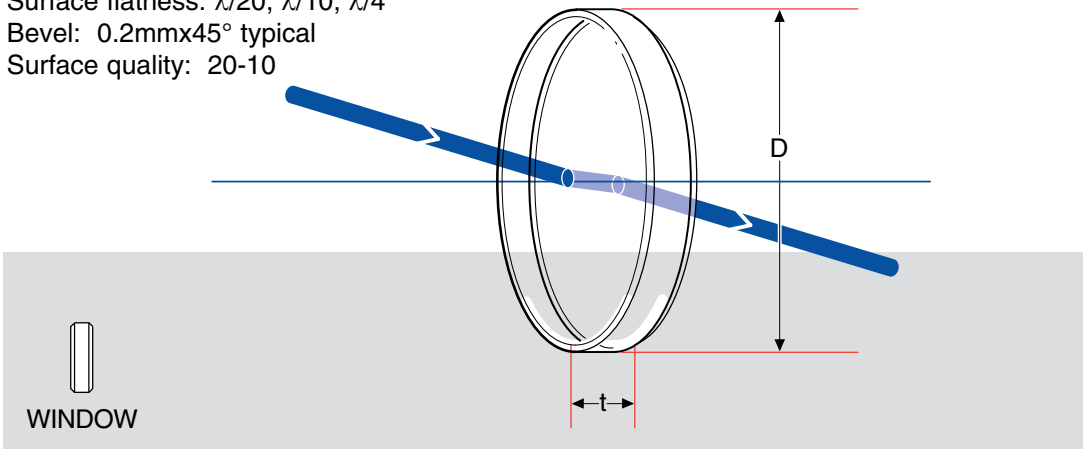
When the broadest transmission spectrum is required (from 185nm to over 2 microns) together with high durability, all for a reasonable cost, these windows are ideal. Fused silica is physically robust and resists chipping and scratches. The coefficient of thermal expansion is quite low, so these windows maybe subjected to higher levels of thermal shock than glass or sapphire can withstand. Circular, square and rectangular shapes available.



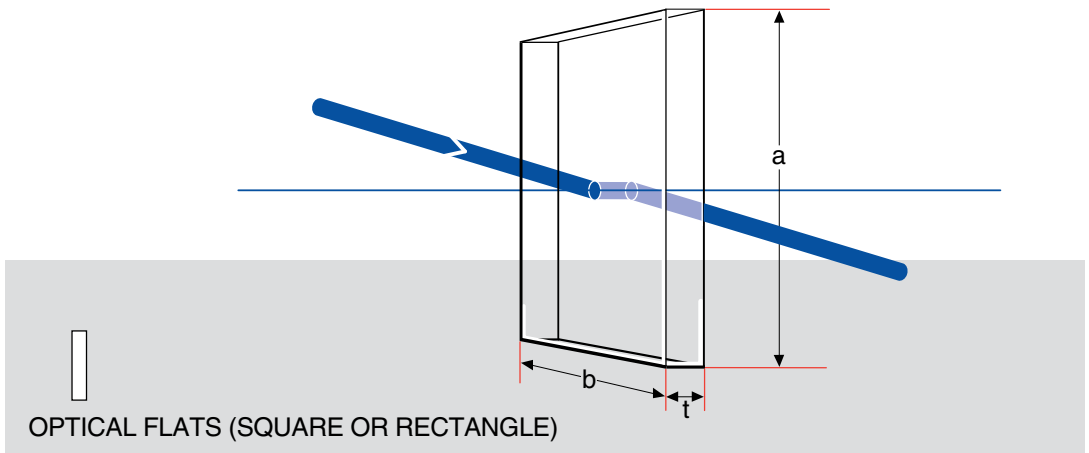
FUSED SILICA TRANSMITTANCE

Specifications & Tolerances

- Material: Ultra-Violet quality synthetic fused silica
- Refractive index: 1.46 @500nm
- Dimension: ≤50.8mm, ≤50x50 +0, -0.1mm
- ≥60mm, ≥60x60 +0, -0.2mm
- Thickness: ≤50.8mm, ≤50x50 ±0.1mm
- ≥60mm, ≥60x60 ±0.2mm
- Surface flatness: λ/20, λ/10, λ/4
- Bevel: 0.2mmx45° typical
- Surface quality: 20-10



WINDOW



OPTICAL FLATS (SQUARE OR RECTANGLE)

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Fused Silica Windows, Square and Rectangular

Size, a x b (mm)	Thickness, t (mm)	Surface Flatness	Parallelism (arcsec)	Price	PART NUMBER
10 x 10	2.0	$\lambda/20$	≤ 2		045-1711
10 x 10	3.0	$\lambda/20$	≤ 2		045-1712
10 x 10	5.0	$\lambda/20$	≤ 2		045-1714
15 x 15	3.0	$\lambda/20$	≤ 2		045-1722
15 x 15	5.0	$\lambda/20$	≤ 2		045-1724
20 x 20	3.0	$\lambda/20$	≤ 2		045-1732
20 x 20	5.0	$\lambda/20$	≤ 2		045-1734
25 x 25	5.0	$\lambda/20$	≤ 2		045-1744
30 x 30	5.0	$\lambda/20$	≤ 2		045-1764
40 x 40	6.0	$\lambda/20$	≤ 2		045-1775
50 x 50	8.0	$\lambda/20$	≤ 2		045-1777
10 x 10	1.0	$\lambda/10$	≤ 5		045-1510
10 x 10	2.0	$\lambda/10$	≤ 5		045-1511
10 x 10	3.0	$\lambda/10$	≤ 5		045-1512
10 x 10	5.0	$\lambda/10$	≤ 5		045-1514
10 x 20	5.0	$\lambda/10$	≤ 5		045-0470
15 x 15	2.0	$\lambda/10$	≤ 5		045-1521
15 x 15	3.0	$\lambda/10$	≤ 5		045-1522
15 x 15	5.0	$\lambda/10$	≤ 5		045-1524
15 x 30	5.0	$\lambda/10$	≤ 5		045-0480
20 x 20	2.0	$\lambda/10$	≤ 5		045-1531
20 x 20	3.0	$\lambda/10$	≤ 5		045-1532
20 x 20	5.0	$\lambda/10$	≤ 5		045-1534
20 x 35	5.0	$\lambda/10$	≤ 5		045-0490
25 x 25	3.0	$\lambda/10$	≤ 5		045-1542
25 x 25	5.0	$\lambda/10$	≤ 5		045-0440
25 x 40	6.0	$\lambda/10$	≤ 5		045-0550
30 x 30	3.0	$\lambda/10$	≤ 5		045-1562
30 x 30	5.0	$\lambda/10$	≤ 5		045-1564
30 x 50	8.0	$\lambda/10$	≤ 5		045-0560
40 x 40	4.0	$\lambda/10$	≤ 5		045-1573
40 x 40	6.0	$\lambda/10$	≤ 5		045-1575
50 x 50	5.0	$\lambda/10$	≤ 5		045-0447
50 x 50	8.0	$\lambda/10$	≤ 5		045-0450
10 x 10	1.0	$\lambda/4$	≤ 5		045-1610
10 x 10	2.0	$\lambda/4$	≤ 5		045-1611
10 x 10	3.0	$\lambda/4$	≤ 5		045-1612
10 x 10	5.0	$\lambda/4$	≤ 5		045-1614
15 x 15	2.0	$\lambda/4$	≤ 5		045-1621
15 x 15	3.0	$\lambda/4$	≤ 5		045-1622
15 x 15	5.0	$\lambda/4$	≤ 5		045-1624
20 x 20	2.0	$\lambda/4$	≤ 5		045-1631
20 x 20	3.0	$\lambda/4$	≤ 5		045-1632

For **broadband visible Anti-Reflection coatings** on both faces **append -A55** to part number and add \$30 for sizes up to 55mm, \$65 for up to 100mm and \$140 for larger sizes. Special shapes can be produced on request.

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Fused Silica Windows, Square and Rectangular (continued)

Size, a x b (mm)	Thickness, t (mm)	Surface Flatness	Parallelism (arcsec)	Price	PART NUMBER
20 x 20	5.0	$\lambda/4$	≤ 5		045-1634
25 x 25	3.0	$\lambda/4$	≤ 5		045-1642
25 x 25	5.0	$\lambda/4$	≤ 5		045-1644
30 x 30	3.0	$\lambda/4$	≤ 5		045-1662
30 x 30	5.0	$\lambda/4$	≤ 5		045-1664
40 x 40	4.0	$\lambda/4$	≤ 5		045-1673
40 x 40	6.0	$\lambda/4$	≤ 5		045-1675
50 x 50	5.0	$\lambda/4$	≤ 5		045-1684
50 x 50	8.0	$\lambda/4$	≤ 5		045-1687

Fused Silica Windows, Circular

Size, D (mm)	Thickness, t (mm)	Surface Flatness	Parallelism (arcsec)	Price	PART NUMBER
10.0	2.0	$\lambda/20$	≤ 2		045-0810
10.0	3.0	$\lambda/20$	≤ 2		045-0811
10.0	5.0	$\lambda/20$	≤ 2		045-0813
15.0	3.0	$\lambda/20$	≤ 2		045-0820
15.0	5.0	$\lambda/20$	≤ 2		045-0825
20.0	3.0	$\lambda/20$	≤ 2		045-0830
30.0	5.0	$\lambda/20$	≤ 2		045-0840
40.0	6.0	$\lambda/20$	≤ 2		045-0850
50.0	8.0	$\lambda/20$	≤ 2		045-0860
60.0	10.0	$\lambda/20$	≤ 2		045-0870
80.0	12.0	$\lambda/20$	≤ 2		045-0880
100.0	15.0	$\lambda/20$	≤ 2		045-0890
10.0	1.0	$\lambda/10$	≤ 5		045-0305
10.0	2.0	$\lambda/10$	≤ 5		045-0306
10.0	3.0	$\lambda/10$	≤ 5		045-0310
10.0	5.0	$\lambda/10$	≤ 5		045-0315
12.7	3.0	$\lambda/10$	≤ 5		045-0320
12.7	5.0	$\lambda/10$	≤ 5		045-0325
15.0	2.0	$\lambda/10$	≤ 5		045-0329
15.0	3.0	$\lambda/10$	≤ 5		045-0330
15.0	5.0	$\lambda/10$	≤ 5		045-0335
19.1	3.0	$\lambda/10$	≤ 5		045-0340
19.1	5.0	$\lambda/10$	≤ 5		045-0345
20.0	2.0	$\lambda/10$	≤ 5		045-0349
20.0	3.0	$\lambda/10$	≤ 5		045-0350
20.0	5.0	$\lambda/10$	≤ 5		045-0355
25.0	2.0	$\lambda/10$	≤ 5		045-0359
25.0	3.0	$\lambda/10$	≤ 5		045-0360
25.0	5.0	$\lambda/10$	≤ 5		045-0365
25.4	3.0	$\lambda/10$	≤ 5		045-0370
25.4	5.0	$\lambda/10$	≤ 5		045-0375
30.0	2.0	$\lambda/10$	≤ 5		045-0379
30.0	3.0	$\lambda/10$	≤ 5		045-0380
30.0	5.0	$\lambda/10$	≤ 5		045-0385

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Fused Silica Windows, Circular (continued)

Size, D (mm)	Thickness, t (mm)	Surface Flatness	Parallelism (arcsec)	Price	PART NUMBER
38.1	4.0	$\lambda/10$	≤ 5		045-0390
38.1	6.0	$\lambda/10$	≤ 5		045-0395
40.0	4.0	$\lambda/10$	≤ 5		045-0400
40.0	6.0	$\lambda/10$	≤ 5		045-0405
50.0	5.0	$\lambda/10$	≤ 5		045-0410
50.0	8.0	$\lambda/10$	≤ 5		045-0415
50.8	5.0	$\lambda/10$	≤ 5		045-0420
50.8	8.0	$\lambda/10$	≤ 5		045-0425
60.0	6.0	$\lambda/10$	≤ 5		045-0432
60.0	10.0	$\lambda/10$	≤ 5		045-0433
76.2	12.0	$\lambda/10$	≤ 5		045-0427
80.0	8.0	$\lambda/10$	≤ 5		045-0429
80.0	12.0	$\lambda/10$	≤ 5		045-0430
100.0	10.0	$\lambda/10$	≤ 5		045-0434
100.0	15.0	$\lambda/10$	≤ 5		045-0435
130.0	13.0	$\lambda/10$	≤ 5		045-0436
130.0	18.0	$\lambda/10$	≤ 5		045-0437
150.0	15.0	$\lambda/10$	≤ 5		045-0438
150.0	20.0	$\lambda/10$	≤ 5		045-0439
10.0	1.0	$\lambda/4$	≤ 5		045-0608
10.0	2.0	$\lambda/4$	≤ 5		045-0609
10.0	3.0	$\lambda/4$	≤ 5		045-0610
10.0	5.0	$\lambda/4$	≤ 5		045-0612
12.7	3.0	$\lambda/4$	≤ 5		045-0620
15.0	2.0	$\lambda/4$	≤ 5		045-0629
15.0	3.0	$\lambda/4$	≤ 5		045-0630
15.0	5.0	$\lambda/4$	≤ 5		045-0632
19.1	3.0	$\lambda/4$	≤ 5		045-0640
20.0	2.0	$\lambda/4$	≤ 5		045-0649
20.0	3.0	$\lambda/4$	≤ 5		045-0650
20.0	5.0	$\lambda/4$	≤ 5		045-0652
25.0	2.0	$\lambda/4$	≤ 5		045-0659
25.0	3.0	$\lambda/4$	≤ 5		045-0660
25.0	5.0	$\lambda/4$	≤ 5		045-0662
25.4	3.0	$\lambda/4$	≤ 5		045-0670
30.0	2.0	$\lambda/4$	≤ 5		045-0679
30.0	3.0	$\lambda/4$	≤ 5		045-0680
30.0	5.0	$\lambda/4$	≤ 5		045-0690
38.1	4.0	$\lambda/4$	≤ 5		045-0700
40.0	3.0	$\lambda/4$	≤ 5		045-0709
40.0	4.0	$\lambda/4$	≤ 5		045-0710
40.0	6.0	$\lambda/4$	≤ 5		045-0712
50.0	3.0	$\lambda/4$	≤ 5		045-0719
50.0	5.0	$\lambda/4$	≤ 5		045-0720
50.0	8.0	$\lambda/4$	≤ 5		045-0723
50.8	5.0	$\lambda/4$	≤ 5		045-0730
60.0	6.0	$\lambda/4$	≤ 5		045-0740
60.0	10.0	$\lambda/4$	≤ 5		045-0745
80.0	8.0	$\lambda/4$	≤ 5		045-0750
80.0	12.0	$\lambda/4$	≤ 5		045-0755
100.0	10.0	$\lambda/4$	≤ 5		045-0760
100.0	15.0	$\lambda/4$	≤ 5		045-0765
130.0	13.0	$\lambda/4$	≤ 5		045-0770
130.0	18.0	$\lambda/4$	≤ 5		045-0775
150.0	15.0	$\lambda/4$	≤ 5		045-0780
150.0	20.0	$\lambda/4$	≤ 5		045-0785

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