THz Windows

We offer THz windows made of polymer and crystal materials.

1. Crystals

1.1 HRFZ-Si windows



Common specification:

Material	HRFZ-Si
Туре	plano-plano
Available sizes, mm	to 150
Diameter or cross-cut tolerance, mm	+0.0 / -0.1
Thickness tolerance, mm	+/-0.1
Clear aperture, %	>=90
Parallelism, arc. min	3
Surface quality (two-sided polishing),	60/40
scr/dig	
Surface accuracy, mm	+/-0.01 deviation
	from ideal plane
Coatings	AR coatings upon
	request

The following windows are available from stock:

No.	Diameter		Thickness
	mm	inches	mm
1	25.4	1.0	1.0
2	38.1	1.5	1.0
3	50.8	2.0	1.0
4	76.2	3.0	1.0
5	101.6	4.0	1.0

Custom sizes are manufactured upon request.

1.2 THz grade crystal quartz and THz grade sapphire windows



Common specification:

Material	THz grade crystal quartz (z-cut) and THz grade sapphire
Туре	plano-plano
Dimensions tolerance, mm	+/-0.1
Clear aperture, %	>=90
Parallelism, arc. min	5
Surface quality (two-sided	60/40
polishing), scr/dig	
Surface accuracy, mm	+/-0.01 deviation from ideal plane
Coating (for crystal	AR coatings upon request
quartz)	

The following THz grade crystal quartz windows are available from stock:

No.	Diameter		Thickness
	mm	inches	mm
1	25.4	1.0	1.0, 2.0, and 3.0
2	38.1	1.5	1.0, 2.0, and 3.0
3	50.8	2.0	1.0, 2.0, and 3.0

Alternate sizes and custom designs are manufactured upon request. The following sizes of THz grade crystal quartz are available:

- for crystals grown along Z-axis: X>=100 mm, Y>=150 mm, and Z up to 35 mm;
- for crystals grown along Z-axis: X up to 30 mm, Y \geq =100 mm, and Z \geq = 125 mm;

THz grade sapphire windows are manufactured upon request.

2. Polymers



Common specification:

Material	TPX and HDPE
Туре	plano-plano, wedged (wedge is 6
	mrad)
Available diameters, mm	to 100
Dimensions tolerance, mm	+ /-0.25
Clear aperture, %	>=90
S	80/50 scr/dig (2-sided polishing)
Surface quality	fine-ground (only HDPE)
	Rz 0.025 (TPX)
Surface roughness	Rz 0.05 (polished HDPE)
	Rz 0.1 (fine-ground HDPE)
Surface accuracy, mm	+/-0.01 deviation from ideal plane

2.1 TPX windows

The following windows are available from stock:

No.	Diameter		Thickness
	mm	inches	mm
1	25.4	1.0	2.0
2	38.1	1.5	3.0
3	50.8	2.0	3.5

Custom sizes (max thickness $30\ \mathrm{mm}$) are manufactured upon request.

2.2 HDPE windows

The following windows are available from stock:

No.	Diameter		Thickness
	mm	inches	mm
1	25.4	1.0	2.0
2	38.1	1.5	3.0
3	50.8	2.0	4.0

Custom sizes are manufactured upon request.

The finished parts of different dimensions are available from stock and supplied within a week.

Please check the Optics stock at our website.

For price quotation and delivery please fax or e-mail us.

