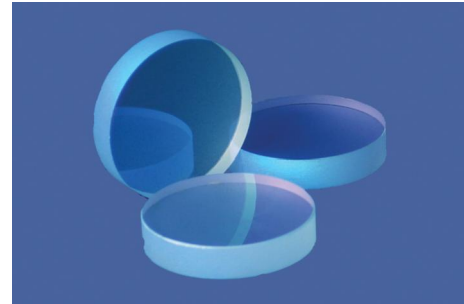


Windows are applied to isolate different physical environments while allowing light to pass. When selecting windows you should consider materials, transmission, scattering, wavefront distortion, parallelism and resistance to certain environment. Tempotec offers a wide range of different materials and different degree of precision windows.



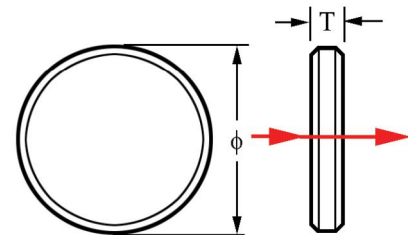
Material: BK7 and Fused Silica typically. Other glasses are available upon request.

## Commercial Quality Flat Windows

Non-precision windows commonly used for sight glasses, instrument windows, beamsplitter substrates, vacuum windows, etc.

### Specifications:

Dimension Tolerance:..... +0.0, -0.1mm  
 Thickness Tolerance: .....  $\pm$  0.2mm  
 Clear Aperture:..... >85%  
 Parallelism:..... < 20"  
 Surface Quality: ..... 60-40 scratch and dig  
 Wavefront Distortion:..... /4 per inch  
 Protective Bevel

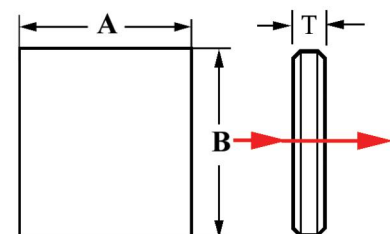


Circle Window

## Precision Flat Windows

Ideal for interferometer flats, laser windows, beam-splitter substrates, or parallel plates.

Dimension Tolerance:..... +0.0, -0.1mm  
 Thickness Tolerance: .....  $\pm$  0.2mm  
 Clear Aperture:..... >85%  
 Parallelism:..... up to 5"  
 Surface Quality: ..... 10-5 scratch and dig  
 Wavefront Distortion:..... /10 per inch  
 Protective Bevel



Rectangle Window

### Sapphire Window

Sapphire has extreme surface hardness, highly thermal conductivity, high dielectric constant and resistance to common chemical acids and alkalis. Windows made from sapphire are ideal for demanding applications. Tempotec supplies double sides fine polished sapphire windows. AR coating is available by request.

**Specifications:**

Material:.....Sapphire crystal ( $Al_2O_3$ )  
 Orientation:.....Random  
 Dimension:..... 2mm~150mm  
 Surface Quality: .....60-40 scratch and dig  
 Flatness:.....  $\lambda/2@632.8nm$   
 Parallelism:.....< 3 arc minutes  
 Protective Bevel

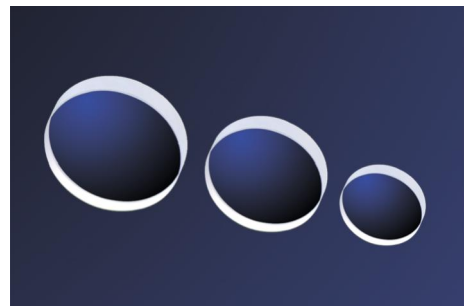


### Magnesium Fluoride ( $MgF_2$ ) Window

$MgF_2$  material can be used for wide spectrum range from 120 to 7000nm. It is commonly used in thermal imaging and excimer laser applications.

**Specifications:**

Material:.....Magnesium Fluoride Single crystal  
 Dimension:dia.25.4(+0/-0.2)x3(+/-0.2)mm (typical)  
 Surface Quality: .....40-20 scratch and dig  
 Flatness:.....  $\lambda/2@632.8nm$   
 Parallelism:.....< 3 arc minutes  
 Protective Bevel



### Silicon Window

Silicon (Si) is a popular and useful IR material. It has good transmission from 3um to 5um. It is widely used in IR sensors, thermal image, medical, and optical measurement systems

**Specifications:**

Material:.....Optical grade single crystal silicon  
 Dimension:dia.25.4(+0/-0.2)x3(+/-0.2)mm (typical)  
 Surface Quality: .....40-20 scratch and dig  
 Flatness:.....  $\lambda/2@632.8nm$   
 Parallelism:.....< 3 arc minutes  
 Protective Bevel



**Other window materials: Calcium Fluoride ( $CaF_2$ ), Germanium (Ge), Float glass, B270, Borofloat, etc.**