

Dome windows

Knight Optical offer extensive custom options for dome windows.

Dome windows are hemispheres. The two optical surfaces are an equal thickness apart. This lends itself to a naturally strong shape under high pressure and makes dome windows ideal for viewport applications such as underwater cameras and submersibles. Typically, the material used will depend on the working wavelength of the application with BK7, UV fused silica (Spectrosil) and sapphire being commonly used. Sapphire transmits well in the visible and IR spectrum and has the added benefit of being exceptionally hard. BK7 offers a cost effective solution for visible applications and UV fused silica is ideal for operating wavelengths below 400nm.



Custom capabilities

Diameter (mm)	5mm to 300mm+
Thickness (mm)	Dependant on diameter
Dimensional tolerances (mm)	+/-0.05
Max. strength variation* (diopters)	+/-0.2
Surface figure (fr.)	< 10(5)
Concentricity (mm)	< 0.05
Scratch/Dig	< 20:10
Polish	< P3
Material	Please discuss requirements

*Strength variation relative to strength at peak of dome

All products are tested in our state of the art metrology laboratory by our highly trained technicians to ensure compliance with the specification. Parts are then sent to our QA team to be cleaned and checked for surface imperfections before dispatch.

Please contact our technical sales team on (+44) 1622 849 444 to discuss your custom dome window requirements and discover how Knight Optical can help improve your supply chain experience. Alternatively, email us your requirements by clicking on the links below.