

サファイア基板研磨

Sapphire Polishing



Sapphire is a unique material well suited for many ultra-precision optical applications. It is transparent from the lower UV (142nm) through the mid IR (6.5um). Due to the high tensile strength of the material it is ideally suited for many high G environments. In addition, sapphire is very tolerant of high radiation environments which makes it ideal for space based applications. There are many other attributes of sapphire that lead to its use by optical designers.

Due to its high mechanical strength, sapphire is a very difficult material to polish. Gooch & Housego (formerly General Optics) unique super polishing processes allow us to polish sapphire components to better than 1 Angstrom surface roughness. We are pleased to polish customer supplied blanks or to furnish a complete turn-key component per a print provided. Our typical achievable specifications for sapphire are as follows:

Typical Specifications	
Sizes	Up to 14" diameter*
Thickness	1mm or greater
Surface Figure	Better than 1/20 wave
Transmitted Wave	Better than 1/20 wave
Surface Roughness	Better than 0.6 Å
Optical Coatings	Various reflective and beamsplitter coatings can be provided

Please send us your drawings and specifications for Sapphire components and we will be pleased to provide a quotation. General Optics is a premier supplier of high volume, high quality, ultraprecision components. Please see details on our build to print services, our quality programs, and our OEM Odyssey plan.

*Note: Gooch & Housego can polish larger components depending upon the availability of sapphire in sizes greater than 14" diameter.

