



Crystals Land

*** Welcome To Al₂O₃ Crystal ***

Sapphire (Al₂O₃)

As the hardest of all oxide crystals, Sapphire has a combination of optical and physical properties that makes it the best choice for a variety of demanding applications. Sapphire maintains its strength even at high temperatures. It has good thermal properties, excellent electrical and dielectric properties and is resistant to chemical attack. These properties encourage the use of Sapphire in aggressive environments where reliability, optical transmission and strength are required.

Basic Properties:

Crystal structure	Hexagonal System
Lattice	a=4.785? C=12.991?/font>
Density	3.98g/cm ³
Transmission Range	150-5500nm
Melting Point	2040°C
Specific Heat	0.418 W.s/g/K
Thermal Conductivity	25.12 W/m/K
Thermal Shock Resistance	790 W/m
Thermal Expansion Coefficient	5.8x10 ⁻⁶ /K
dn/dt, @633nm	13x10 ⁻⁶ /K
Mohs Hardness	9
Refractive Index	1.83 @0.26mm, 1.76 @0.63μm, 1.58 @5.57μm

Products

Other high-precision Sapphire windows, AR- and HR-coatings are available upon request. Sapphire boule grown by CZ method and as-cut Sapphire blocks are also available.

Contact us for  information





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