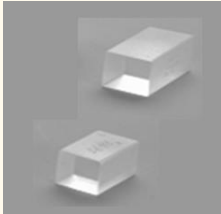


BBO Crystal (Beta Barium Borate)

BBO or beta-BaB₂O₄ is a nonlinear optical crystal which provides an attractive solutions for various nonlinear optical applications, such as second, third and fourth harmonic generation of Nd:YAG and Nd:YLF laser, frequency-doubling, tripling and mixing of Dye lasers, second, third and fourth harmonic generation of Ti:Sapphire and Alexandrite laser, optical parametric amplifier (OPA), optical parametric oscillators (OPO), and more.



Properties:

| Physical properties | | BBO | | |
|--|--|---|---------|--|
| Hardness (Mohs) | | 3.5-4.5 | | |
| Density, g/cm 3 | | 3.85 | | |
| Thermal conductivity, w/m/k | | 1.2 – 1.6 | | |
| Dielectric Constants | | $\epsilon_{11} = 6.7$ $\epsilon_{33} = 8.1$ | | |
| Resistivity ($\times 10^6 \Omega m$) | | $\rho_{11} = 10.15$ $\rho_{33} = 16.31$ | | |
| Optical properties | | BBO | | |
| Optical Homogeneity (cm^{-1}) | | $\delta_n < 10^{-6}$ | | |
| Transparency range, nm | | 190-3500 | | |
| Absorption coefficient at 1064nm | | <0.1% | | |
| Refractive indices | | n_o | n_e | |
| Refractive Indices at 0.213μm | | 1.8465 | 1.6742 | |
| Refractive Indices at 0.266μm | | 1.7571 | 1.61391 | |
| Refractive Indices at 0.355μm | | 1.7055 | 1.5775 | |
| Refractive Indices at 0.532μm | | 1.6750 | 1.5555 | |
| Refractive Indices at 1.064μm | | 1.6551 | 1.5426 | |

For any other material property, please send your specific request.