Birefringent Crystals

YVO_4 (Yttrium Orthovanadate)

As an excellent birefringent crystal, YVO4 has the advantages of wide light transmittance range, high transmittance, high birefringence coefficient and easier processing.

It is widely applied in fiber optic isolators and circulators, interleavers, beam dispalcers and other polarizing optics

Technical Parameters

Size Tolerance	(W ± 0.1 mm) x (H ± 0.1 mm) x (L ± 0.2 mm)
Directional Accuracy	±0.5°
Surface Quality	20/10
Clear Aperture	> 90%
Flatness	< λ/4@633nm
Parallelism	< 15 arc sec
Perpendicularity	< 10 arc min
Coating	As per customers' requirements

Please refer to appendix P38 for more information

$LiNbO_3$ (Lithium Niobate)

LiNbO3 crystal has low use loss, good mechanical and physical properties, wide light transmission range, high optical uniformity and easy processing.

LiNbO3 crystals are widely used in passive optical communication devices such as optical isolators, circulators, polarizers, polarizers and so on.

Technical Parameters

Size Tolerance	±0.1 mm
Angle Tolerance	±0.5°
Surface Quality	20/10
Clear Aperture	> 90%
Flatness	< λ/8@633nm
wavefront distortion	< λ/4@633nm
Parallelism	< 20 arc sec
Perpendicularity	< 5 arc min
Coating	As per customers' requirements

Please refer to appendix P39 for more crystal structure

α-BBO (Alpha-Barium Borate)

α-BBO has a broad transparent range of 190 nm-3500 nm and high birefringence, and does not have nonlinear optical properties due to its centrosymmetric crystal structure, so it cannot be used as a nonlinear crystal.

α-BBO is have good internal quality, low absorption, good mechanical properties and high damage threshold, so it is widely used as Glan prisms and polarizing beam splitters for its high extinction ratio and UV transmission.

Technical Parameters

Size Tolerance	±0.1 mm
Directional Accuracy	±0.5°
Surface Quality	20/10
Clear Aperture	> 90%
Flatness	< λ/4@633nm
wavefront distortion	< λ/2@633nm
Parallelism	< 15 arc sec
Beam Steering	< 3 arc min
Coating	As per customers' requirements

Please refer to appendix P38 for more crystal structure