



Nd:YAG Crystals

New Source Technology is a major supplier of this important Crystal for Industrial, Medical, Military and Scientific products. We maintain the highest standards of quality and can deliver products to your exact specifications from our Pleasanton Ca. location. You are assured of the highest possible consistency and precision every time. Contact Customer Service or your Sales representative for more information.

Materials and Specifications:

Dopent Concentration:	Nd 0.6 ~ 1.3at%
Orientation:	(111) or (100) within 5°
Waveform :	see table below
Extinction Ratio:	see table below
Rod Size:	dia. 2 ~ 15mm, length 3~200 mm
Dimensional Tolerance:	dia. +0.000"/-0.002, length ± 0.02"
Barrel Finish:	ground finish 400# grit
Parallelism:	≤10"
Perpendicularity:	≤ 5'
Flatness:	λ /10
Surface Quality:	10 -5(MIL-O-13830A)
Chamfer:	0.006" ± 0.002" @45°± 5°
AR Coating Reflectivity:	≤ 0.25% (@1064nm)

Advantages

High Gain

Low Threshold

High efficiency

High Optical Quality

Low Loss

Good Thermal Conductivity

High Mechanical Strength

Suitable for High Average Power Lasers

Extinction Ratio & Wavefront Distortion

Rod Size (mm)	SIQ Grade	Select Grade	Special Grade
φ 3 - φ 6.5	≤ 0.25 λ / inch	≤ 0.125 λ / inch	≤ 0.05 λ / inch
	≥ 25 dB	≥ 28 dB	≥ 30 dB
φ 7 - φ 10	≤ 0.35 λ / inch	≤ 0.2 λ / inch	≤ 0.08 λ / inch
	≥ 22 dB	≥ 25 dB	≥ 28 dB
φ 11 - φ 13	≤ 0.5 λ / inch	≤ 0.3 λ / inch	≤ 0.1 λ / inch
	≥ 20 dB	≥ 23 dB	≥ 26 dB
φ 14 - φ 16	≤ 0.6 λ / inch	≤ 0.4 λ / inch	≤ 0.125 λ / inch
	≥ 18 dB	≥ 20 dB	≥ 23 dB

Wavefront Distortion

Cross Section (H x W mm)	Standard Grade (λ / inch.)	Select Grade (λ / inch.)	Special Grade (λ / inch.)
3 - 6 x 5 - 9	≤ 0.25	≤ 0.20	≤ 0.10
3 - 6 x 10 - 15	≤ 0.30	≤ 0.25	≤ 0.15
7 - 10 x 10 - 15	≤ 0.35	≤ 0.30	≤ 0.20
7 - 10 x 16 - 20	≤ 0.50	≤ 0.35	≤ 0.25
10 - 15 x 12 - 15	≤ 0.50	≤ 0.35	≤ 0.30
7 - 11 x 21 - 30	≤ 0.75	≤ 0.45	≤ 0.35