

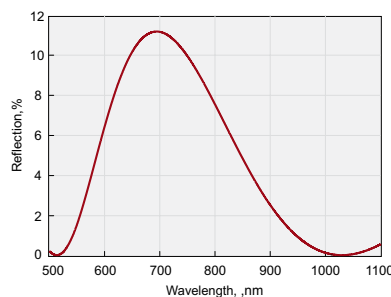
BBO AND LBO CRYSTALS FOR SHG OF Yb:KGW/KYW FREQUENCY CONVERSION

EKSMA OPTICS recommends the following thickness BBO and LBO crystals for Type 1 SHG at 1030 nm depending on fundamental wavelength pulse duration, assuming it is spectrum limited Gaussian pulse.

SHG@1030 nm	BBO crystal thickness	LBO crystal thickness
50 fs	0.5 mm	0.9 mm
100 fs	1 mm	1.9 mm
150 fs	1.5 mm	2.8 mm
200 fs	2 mm	3.7 mm

NOTE

LBO crystals can be supplied with Clear Aperture up to 35 mm diameter.



Typical AR@1030+515 nm coating for LBO or BBO SHG@1030 nm application

SHG LBO crystals

SHG LBO crystals, Type 1, Thickness = 0.9 mm

Code	Aperture, mm	θ , deg	ϕ , deg	Coating	Price, EUR
LBO-601	6×6	90	13.8	AR/AR@515+1030 nm	515
LBO-801	8×8	90	13.8	AR/AR@515+1030 nm	620
LBO-1001	10×10	90	13.8	AR/AR@515+1030 nm	650
LBO-1201	12×12	90	13.8	AR/AR@515+1030 nm	–
LBO-1501	15×15	90	13.8	AR/AR@515+1030 nm	–
LBO-2001	20×20	90	13.8	AR/AR@515+1030 nm	–
LBO-2201	22×22	90	13.8	AR/AR@515+1030 nm	–

SHG LBO crystals, Type 1, Thickness = 1.9 mm

Code	Aperture, mm	θ , deg	ϕ , deg	Coating	Price, EUR
LBO-602	6×6	90	13.8	AR/AR@515+1030 nm	460
LBO-802	8×8	90	13.8	AR/AR@515+1030 nm	610
LBO-1002	10×10	90	13.8	AR/AR@515+1030 nm	815
LBO-1202	12×12	90	13.8	AR/AR@515+1030 nm	–
LBO-1502	15×15	90	13.8	AR/AR@515+1030 nm	–
LBO-2002	20×20	90	13.8	AR/AR@515+1030 nm	–
LBO-2202	22×22	90	13.8	AR/AR@515+1030 nm	–

SHG LBO crystals, Type 1, Thickness = 2.8 mm

Code	Aperture, mm	θ , deg	ϕ , deg	Coating	Price, EUR
LBO-603	6×6	90	13.8	AR/AR@515+1030 nm	545
LBO-803	8×8	90	13.8	AR/AR@515+1030 nm	790
LBO-1003	10×10	90	13.8	AR/AR@515+1030 nm	1035
LBO-1203	12×12	90	13.8	AR/AR@515+1030 nm	–
LBO-1503	15×15	90	13.8	AR/AR@515+1030 nm	–
LBO-2003	20×20	90	13.8	AR/AR@515+1030 nm	–
LBO-2203	22×22	90	13.8	AR/AR@515+1030 nm	–

SHG LBO crystals, Type 1, Thickness = 3.7 mm

Code	Aperture, mm	θ , deg	ϕ , deg	Coating	Price, EUR
LBO-604	6×6	90	13.8	AR/AR@515+1030 nm	465
LBO-804	8×8	90	13.8	AR/AR@515+1030 nm	660
LBO-1004	10×10	90	13.8	AR/AR@515+1030 nm	895
LBO-1204	12×12	90	13.8	AR/AR@515+1030 nm	–
LBO-1504	15×15	90	13.8	AR/AR@515+1030 nm	–
LBO-2004	20×20	90	13.8	AR/AR@515+1030 nm	–
LBO-2204	22×22	90	13.8	AR/AR@515+1030 nm	–

SHG BBO crystals

SHG BBO crystals, Type 1, Thickness = 0.5 mm

Code	Aperture, mm	θ , deg	ϕ , deg	Coating	Price, EUR
BBO-651	6×6	23.4	90	AR/AR@515+1030 nm	490
BBO-851	8×8	23.4	90	AR/AR@515+1030 nm	625
BBO-1051	10×10	23.4	90	AR/AR@515+1030 nm	650
BBO-1251	12×12	23.4	90	AR/AR@515+1030 nm	–
BBO-1551	15×15	23.4	90	AR/AR@515+1030 nm	–
BBO-2051	20×20	23.4	90	AR/AR@515+1030 nm	–
BBO-2251	22×22	23.4	90	AR/AR@515+1030 nm	–

SHG BBO crystals, Type 1, Thickness = 1 mm

Code	Aperture, mm	θ , deg	ϕ , deg	Coating	Price, EUR
BBO-652	6×6	23.4	90	AR/AR@515+1030 nm	420
BBO-852	8×8	23.4	90	AR/AR@515+1030 nm	550
BBO-1052	10×10	23.4	90	AR/AR@515+1030 nm	610
BBO-1252	12×12	23.4	90	AR/AR@515+1030 nm	–
BBO-1552	15×15	23.4	90	AR/AR@515+1030 nm	–
BBO-2052	20×20	23.4	90	AR/AR@515+1030 nm	–
BBO-2252	22×22	23.4	90	AR/AR@515+1030 nm	–

SHG BBO crystals, Type 1, Thickness = 1.5 mm

Code	Aperture, mm	θ , deg	ϕ , deg	Coating	Price, EUR
BBO-653	6×6	23.4	90	AR/AR@515+1030 nm	465
BBO-853	8×8	23.4	90	AR/AR@515+1030 nm	585
BBO-1053	10×10	23.4	90	AR/AR@515+1030 nm	695
BBO-1253	12×12	23.4	90	AR/AR@515+1030 nm	–
BBO-1553	15×15	23.4	90	AR/AR@515+1030 nm	–
BBO-2053	20×20	23.4	90	AR/AR@515+1030 nm	–
BBO-2253	22×22	23.4	90	AR/AR@515+1030 nm	–

SHG BBO crystals, Type 1, Thickness = 2 mm

Code	Aperture, mm	θ , deg	ϕ , deg	Coating	Price, EUR
BBO-654	6×6	23.4	90	AR/AR@515+1030 nm	470
BBO-854	8×8	23.4	90	AR/AR@515+1030 nm	615
BBO-1054	10×10	23.4	90	AR/AR@515+1030 nm	820
BBO-1254	12×12	23.4	90	AR/AR@515+1030 nm	–
BBO-1554	15×15	23.4	90	AR/AR@515+1030 nm	–
BBO-2054	20×20	23.4	90	AR/AR@515+1030 nm	–
BBO-2254	22×22	23.4	90	AR/AR@515+1030 nm	–