

CRYSTAL WINDOWS FOR WHITE LIGHT (CONTINUUM) GENERATION

The interaction of intense laser pulses with transparent media (the crystals with cubic structure are more effective) can result in vast spectral broadening, ranging from the infrared to the ultraviolet spectral region. This continuum or white-light generation is a well-established phenomenon. Femtosecond

laser induced white light has been the source of ultrashort coherent radiation for numerous applications: time-resolved broadband pump–probe spectroscopy, optical pulse compression, and optical parametric amplification.



Specifications

Material	undoped YAG, orientation [111]
Clear aperture	>90% of diameter
Diameter tolerance	+0.00 / -0.13 mm
Thickness tolerance	±0.2 mm
Surface quality	20 – 10 scratch & dig
Transmitted wavefront distortion	$\lambda/4 - \lambda/10$ @ 633 nm
Parallelism	<30 arcsec
Coating	uncoated

Standard YAG windows

Material	Diameter, mm	Thickness, mm	Transmitted wavefront distortion	Catalogue number	Price, EUR
YAG	12.7	1.0	$\lambda/4$	555-7121	204
YAG	12.7	2.0	$\lambda/4$	555-7122	204
YAG	12.7	3.0	$\lambda/10$	555-7123	215
YAG	12.7	4.0	$\lambda/10$	555-7124	215
YAG	12.7	5.0	$\lambda/10$	555-7125	226
YAG	12.7	6.0	$\lambda/10$	555-7126	237
YAG	12.7	8.0	$\lambda/10$	555-7128	253
YAG	12.7	10.0	$\lambda/10$	555-7129	264
YAG	25.4	1.0	$\lambda/4$	555-7251	248
YAG	25.4	2.0	$\lambda/4$	555-7252	248
YAG	25.4	3.0	$\lambda/10$	555-7253	270
YAG	25.4	4.0	$\lambda/10$	555-7254	270

Specifications

Material	sapphire, orientation c-cut [111]
Clear aperture	>90% of diameter
Diameter tolerance	+0.00 / -0.13 mm
Thickness tolerance	±0.2 mm
Surface quality	60 – 40 scratch & dig
Transmitted wavefront distortion	<1 λ @ 633 nm
Parallelism	<3 arcmin
Coating	uncoated

Standard Sapphire windows

Material	Diameter, mm	Thickness, mm	Transmitted wavefront distortion	Catalogue number	Price, EUR
Sapphire	12.7	0.5	1 λ	550-7120	29
Sapphire	12.7	1.0	1 λ	550-7121	28
Sapphire	12.7	2.0	1 λ	550-7122	28
Sapphire	12.7	3.0	1 λ	550-7123	28
Sapphire	12.7	4.0	1 λ	550-7124	30
Sapphire	12.7	5.0	1 λ	550-7125	32
Sapphire	12.7	6.0	1 λ	550-7126	33
Sapphire	12.7	8.0	1 λ	550-7128	55
Sapphire	20.0	0.5	1 λ	550-7200	39
Sapphire	20.0	1.0	1 λ	550-7201	39
Sapphire	20.0	1.5	1 λ	550-7215	39
Sapphire	20.0	2.0	1 λ	550-7202	39
Sapphire	25.4	0.5	1 λ	550-7250	50
Sapphire	25.4	1.0	1 λ	550-7251	50
Sapphire	25.4	2.0	1 λ	550-7252	50
Sapphire	25.4	3.0	1 λ	550-7253	50
Sapphire	25.4	4.0	1 λ	550-7254	50
Sapphire	25.4	5.0	1 λ	550-7255	55
Sapphire	25.4	6.0	1 λ	550-7256	77
Sapphire	25.4	8.0	1 λ	550-7258	88

Specifications

Material	single crystal CaF ₂ , orientation [001]
Clear aperture	>90% of diameter
Diameter tolerance	+0.00 / -0.13 mm
Thickness tolerance	±0.2 mm
Surface quality	40 – 20 scratch & dig
Transmitted wavefront distortion	$\lambda/4$ @ 633 nm
Parallelism	<1 arcmin
Coating	uncoated

Standard CaF₂ windows

Material	Diameter, mm	Thickness, mm	Transmitted wavefront distortion	Catalogue number	Price, EUR
CaF ₂	12.7	3.0	$\lambda/4$	531-5123	120
CaF ₂	12.7	4.0	$\lambda/4$	531-5124	140
CaF ₂	25.4	1.0	$\lambda/4$	531-5251	160
CaF ₂	25.4	2.0	$\lambda/4$	531-5252	160
CaF ₂	25.4	3.0	$\lambda/4$	531-5253	160
CaF ₂	25.4	4.0	$\lambda/4$	531-5254	180
CaF ₂	25.4	5.0	$\lambda/4$	531-5255	180