

THIN AgGaS₂ CRYSTALS FOR DFG → 2.5 – 1.3 μm


Standard specifications

Flatness	$\lambda/6 @ 633 \text{ nm}$
Parallelism	< 20 arcsec
Perpendicularity	< 10 arcmin
Angle tolerance	< 30 arcmin
Aperture tolerance	$\pm 0.1 \text{ mm}$
Surface quality	10 – 5 scratch & dig (MIL-PRF-13830B)
Clear aperture	> 90% of full aperture

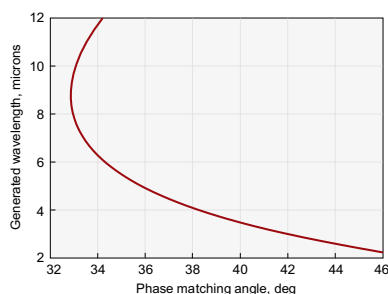
BBAR COATED AgGaS₂ CRYSTALS

BBAR coating – is multilayer dielectric antireflection coating made at specified wavelength range. Standard coating is designed to reduce reflection losses at input side at 1.1 – 2.6 micron range and output side at 2.6 – 11 micron range.

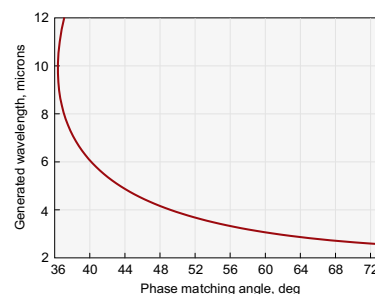
Typical reflection values are $R < 0.5\%$ in the mid range, and up to reflection values of uncoated crystal at the edges of given ranges. BBAR coating is designed to minimise dispersion of ultrashort pulses and also features high damage threshold.

Size, mm			Orientation		Coating	Application	Catalogue number	Price, EUR
W	H	L	θ	ϕ				
5	5	1	39	45	BBAR/BBAR @ 1.1-2.6 / 2.6-11 μm	DFG @ 1.2-2.4 μm → 2.4-11 μm	AGS-401H	1770
6	6	2	50	0	BBAR/BBAR @ 1.1-2.6 / 2.6-11 μm	DFG @ 1.2-2.4 μm → 2.4-11 μm	AGS-402H	2375
5	5	0.4	34	45	BBAR/BBAR @ 3-6 / 1.5-3 μm	SHG @ 3-6 μm, Type 1	AGS-403H	2040
5	5	0.4	39	45	BBAR/BBAR @ 1.1-2.6 / 2.6-11 μm	DFG @ 1.2-2.4 μm → 2.4-11 μm	AGS-404H	2040
8	8	0.4	39	45	BBAR/BBAR @ 1.1-2.6 / 2.6-11 μm	DFG @ 1.2-2.4 μm → 2.4-11 μm	AGS-801H	4080
8	8	1	39	45	BBAR/BBAR @ 1.1-2.6 / 2.6-11 μm	DFG @ 1.2-2.4 μm → 2.4-11 μm	AGS-802H	3670

Crystals are mounted into open ring holders (see page 2.26).



Type 1 DFG (e-o=e) in AGS. DFG of signal and idler generated in BBO pumped at 800 nm



Type 2 DFG (e-o=e) in AGS. DFG of signal and idler generated in BBO pumped at 800 nm

Housing Accessories

Ring Holders
for Nonlinear Crystals

See page 2.26



Positioning Mount
840-0199 for
Nonlinear Crystal
Housing

See page 2.27

