

Faraday Glass



DESCRIPTION

Faraday rotating glass is a magneto-optical glass with good transmittance in the visible and infrared range (520-1400nm). It can rotate the polarization plane of a beam of polarized light passing parallel to the magnetic field direction and is a glass functional material with a strong Faraday effect. Because of its "non-reciprocity", it can rotate the polarization plane of both forward- and reverse-incident light of the same wavelength in the same direction by the same angle, regardless of the direction of light beam propagation. This material is widely used to make Faraday rotators based on these properties. TG20 has been widely used in switches, modulators, sensors, and magneto-optical isolators.

FEATURES

- Verdet constant high
- Good chemical durability
- Excellent transparency

APPLICATIONS

- Magneto optic switch
- Magneto optic isolator
- Extinction ratio tester
- Raman fiber amplifier

PHYSICOCHEMICAL PROPERTIES

TG20	TG28
74	-
105	_
520-1400	520-1400
51.3	69
760	759
800	800
4.32	4.99
108	
0.22	
	TG20 74 105 520-1400 51.3 760 800 4.32 108 0.22





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MATERIALS AND SPECIFICATIONS

Diameter tolerance	< λ/8 @ 633nm	
Length tolerance	±0.05mm	
Flatness	<λ/8 @ 633nm	
Surface quality	10/5 s scratches / dents	
Parallelism	< 5 ''	
Luminous aperture	>90%	
Chamfer	0.1mm x 45°	

OPTICAL CHARACTERISTICS

Material	TG20	TG28
Refractive index (1064nm)	1.6721	1.736
Refractive index (@589.3nm)	1.6888	1.75
Nonlinear refractive index (10 ⁻¹³ e.s.u)	2.46	2.42
Abbe number	53.14	50.98

SPECTROGRAM

