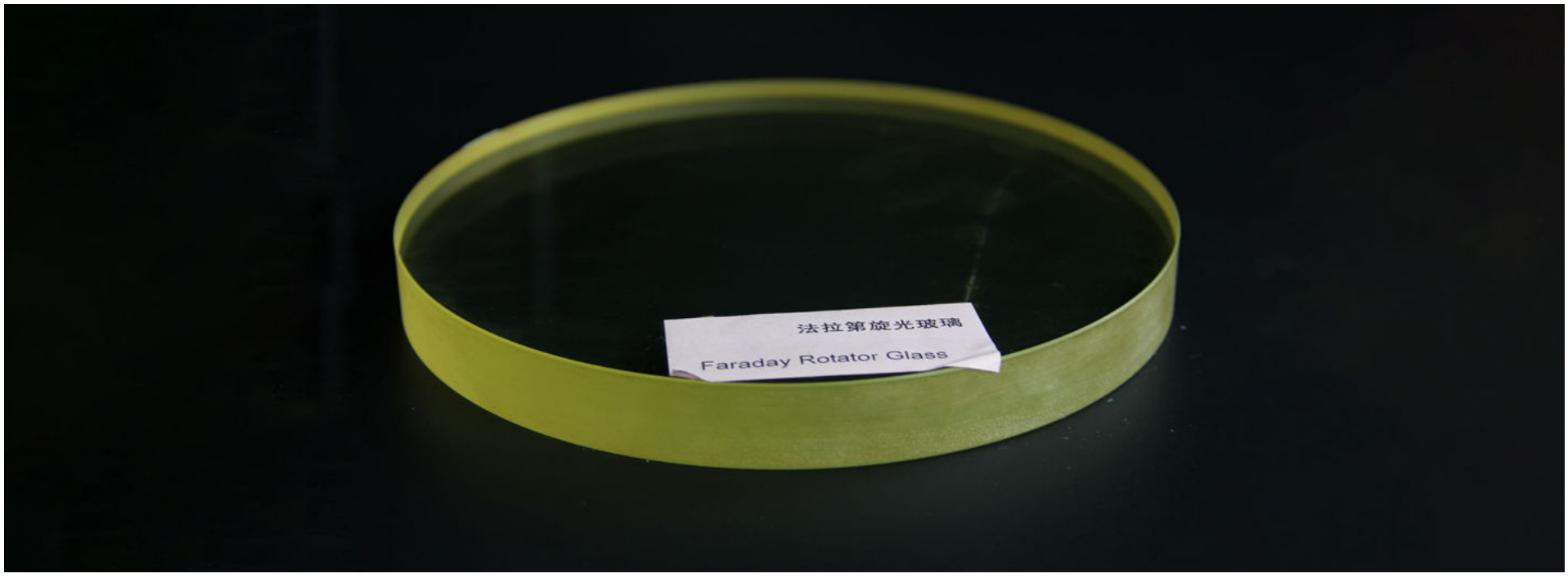
Faraday Rotator Glass



DESCRIPTION

Faraday rotator glass is a kind of magneto-optical glasses with good transmittance in the visible and infrared range（520～1400nm）. Faraday rotator glass is more suitable for medium and low power level lasers, and is cheaper compared with the other magneto-optic crystals such as TGG,TSAG. TG20 has been used widely in switch, modulator, sensor, magneto-optical isolator.

PARAMETER

Physical and Chemical Properties

Materials	TG20	TG28
Thermal Coefficient of Refractive Index (10-7 /℃)	74	–
Thermal Coefficient of Optical Path (10-7 /℃)	105	–
Transmission Window (nm)	520-1400	520-1400
Coefficient of Thermal Expansion (10-7 /℃)	51.3	69
Transition Temperature (℃)	760	759
Sag Temperature (℃)	800	800
Density (g/cm 3)	4.32	4.99
Young’s Modulus GPa)	108	
Poisson’s Ratio	0.22	
Knoop Hardness (Kg/cm2)	760	

Optical and Spectral Properties

Materials	TG20	TG28
Refractive Index (1064nm)	1.6721	1.736
Refractive Index (d 589.3nm)	1.6888	1.75
Nonlinear Refractive Index (10-13 e.s.u .)	2.46	2.42
Abbe Number	53.14	50.98

Verdet Constant

Verdet Constant		
Materials	TG20	TG28
Verdet Constant V (min/Oe.cm): 632.8nm	-0.258	-0.361
Verdet Constant V (min/Oe.cm): 1064nm	-0.075	-0.106

www.laser-crylink.com
sales@crylink.com
+86-021-66566068
Building 7, No.718 Baoqi Road, Baoshan District, Shanghai, China