CLS Filter Glass
Sm:Glass

Samarium doped silicate glass can be used as a filter for the pump cavity to prevent color centers from appearing in the laser medium and to reduce thermal effects. Samarium doped silicate glass has strong absorption at the Nd^{3+} emission peak, which helps to reduce the radial ASE and structure for uniform pump distribution and high pumping efficiency, which is very important for good beam quality.

Key Features

- High UV cutoff and infrared cutoff ability
- Effectively prevent the solarization phenomenon
- Reduce the thermal aberration in the gain medium
- Inhibit the parasitic oscillation
- Improve the laser efficiency

Applications

Xenon pumped Nd:YAG lasers

Neodymium glass lasers

Technical Specifications

Optical Specifications	
UV Cutoff (5mm,2% transmission) (nm)	350
IR Cutoff (nm)	2500
Refractive Index (d 589.3nm)	1.563
Refractive Index (1053nm)	1.57
Abbe Value	56.6

Other Specifications	
Density (g/cm^3)	2.87
Dw(H_2O 98℃) ($mg/(cm^2/day)$)	0.109

Thermal Specifications	
Transformation Temp. (℃)	490
Softening Temp. (℃)	540
Coeff.of Linear Thermal Expansion (10^{-7}/K) (30~100℃)	87
Coeff.of Linear Thermal Expansion (10^{-7}/K) (30~300℃)	100
Thermal Conductivity (25 ℃) (W/mK)	1.1

Transmission Curve