

# Magneto-Optics Garnet Wafers

**Saint-Gobain Crystals** manufactures Gallium based Garnet Crystals by the Czochralski process, with a high level of crystalline perfection, using computerized pulling machines.

A proprietary process of double side polishing has been developed and allows us to offer polished wafers that exhibit very good flatness and surface quality.

## Products available

We can offer: **GGG, SGGG, NGG**

		GGG	SGGG	NGG
Lattice parameter (at 20°C)	Å	12.383 ± 0.001	12.497 ± 0.003	12.509 ± 0.001
Diameter	mm	Up to 100 ± 0.13	Up to 76.2 ± 0.13	Up to 50.8 ± 0.13
Thickness	µm	457 ± 50	457 ± 50	457 ± 50
Orientation				
Polished surface		(111) ± 0.1°	(111) ± 0.1°	(111) ± 0.1°
Reference flats		perpendicular to $[\bar{1}\bar{1}2]$ and $[\bar{1}10] \pm 2^\circ$		
Flatness	µm	Less than 6µm over 80% of the central area		
Total defect density over central 80% area	cm <sup>-2</sup>	< 1	< 10	< 10

## Special configurations

Special orientations like (100) and (110) may be supplied on request.

Other thicknesses are available on request.

## Standard quality control

Standard polished substrates are core and facet free. Wafer edges are rounded by bevelling and polishing.

Dislocation density measurements are made by visual inspection after a chemical etching process.

## Wafer sizes available

1", 1.5", 2", 3"

4" in development (available on special request)





B.P. 521  
77794 Nemours Cedex, France

Telephone:  
USA: 1-800-830-3594  
Asia: +81(0)3 3263-0559  
Europe: +33 1(0) 64 45 10 15

[www.photonic.saint-gobain.com](http://www.photonic.saint-gobain.com)

*The data presented is believed to be correct but not guaranteed to be so.*

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