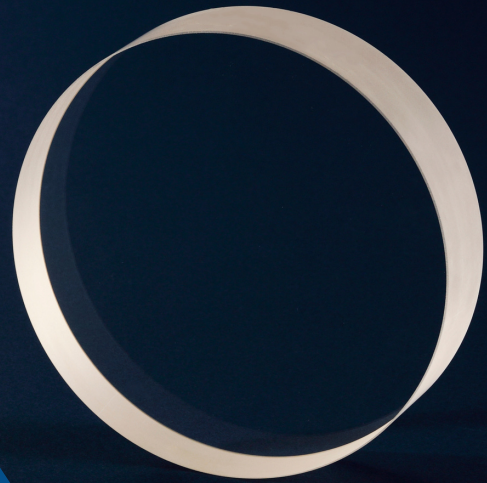


The Future Made Clear

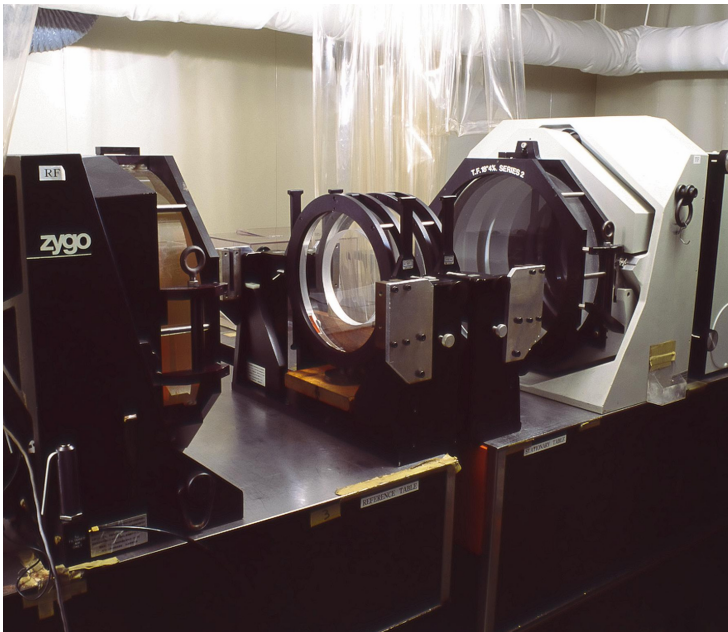


# I-LINE HIGH HOMOGENEITY GLASSES



## i-Line Glasses

Ohara is producing 13 glass types which have excellent internal transmittance in the near UV (>98% at i-line, 365 nm) and are solarization resistant. They can be produced in large sizes with outstanding homogeneity values ( $\pm 0.5 \times 10^{-6}$ ). These glasses are ideally suited for use in microlithography optics (stepper cameras and illumination systems) and astronomical optics (spectrograph camera).



## Advantages

- High transmission at i-line (> 98% at 365 nm for 10 mm thick)
- Excellent homogeneity values ( $\pm 0.5 \times 10^{-6}$ )
- Low birefringence/strain
- Solarization resistant
- 14 i-Line glass types
- Available in blanks up to 300 mm diameter
- For use in Microlithography Optics (Stepper Cameras )
- Suitable for near UV Systems

## GET IN TOUCH

[www.oharacorp.com](http://www.oharacorp.com)

50 Columbia Road  
Branchburg, NJ 08876  
Tel: (908) 218-0100  
Fax: (908) 218-1685

23141 Arroyo Vista #200  
Rancho Santa Margarita, CA 92688  
Tel: (949) 858-5700  
Fax: (949) 858-5455



## OHARA i-Line Glass Types

Glass Type	Internal Transmittance 10 mm thickness (365 nm)	Solarization Resistance	Optical Homogeneity Guaranteed (x 10 <sup>-6</sup> )			Deviation of ni within a single lot (x 10 <sup>-3</sup> )	Tolerance of Refractive Index (x 10 <sup>-5</sup> )
			160m DIA or less	210mm DIA or less	260mm DIA or less		
S-FPL51Y	0.997	Good	2	—	—	±2	+20±20
S-FSL5Y	0.999	Good	1	1.6	2	±2	+15±20
BSL7Y	0.998	Good	1	1.6	2	±1	+20±20
BAL15Y	0.994	Good	1	1.6	2	±2	+10±20
BAL35Y	0.996	Good	1	1.6	2	±2	+20±20
BSM51Y	0.995	Good	1	1.6	2	±2	+30±20
PBL1Y	0.997	Good	1	1.6	2	±2	+10±20
PBL6Y	0.998	Good	1	1.6	2	±2	+10±20
PBL25Y	0.995	Good	1	1.6	2	±2	+10±20
PBL26Y	0.996	Good	1	1.6	2	±2	+10±20
PBL35Y	0.997	Good	1	1.6	2	±2	+10±20
PBM2Y	0.986	Good	1	1.6	2	±2	+10±20
PBM8Y	0.991	Good	1	1.6	2	±2	+10±20
PBM18Y	0.993	Good	1	1.6	2	±2	+10±20

## Features

### 1. Internal Transmittance

Internal transmittance of the glass is indicated as guaranteed minimum transmittance at 365nm (10 and 25 mm sample thickness). Reflection losses are not included.

### 4. Refractive Index (ni) Variation within one Lot (Sn Standard)

The indicated Sn value is the refractive index variation after annealing within a single batch (same melt, same annealing run).

### 2. Solarization

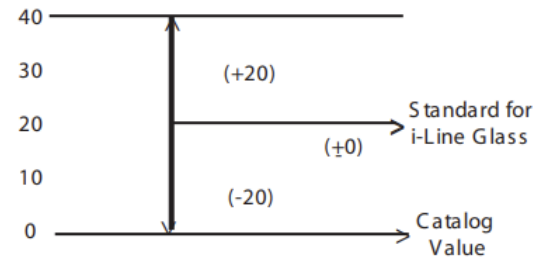
The degree of solarization is indicated as a decrease in transmittance caused by radiation from a super high pressure mercury-vapor lamp. The detailed measurement method is described in the Japanese Optical Glass Industrial Standard (JOGIS ).

### 5. Refractive Index Tolerance

The standard refractive index (ni) of our i-line glasses is higher than our catalogue nominal values. This is due to the longer annealing times which are necessary to obtain the desired homogeneity levels.

### 3. Optical Homogeneity

Ohara is capable of achieving the optical homogeneity listed above using our He-Ne laser interferometer. Please be sure to specify the homogeneity required at time of order.



Refractive Index Example: +20 ± 20 x 10<sup>-5</sup>

Please contact us to discuss your specific requirements.

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