

High Refractive Index Wafers

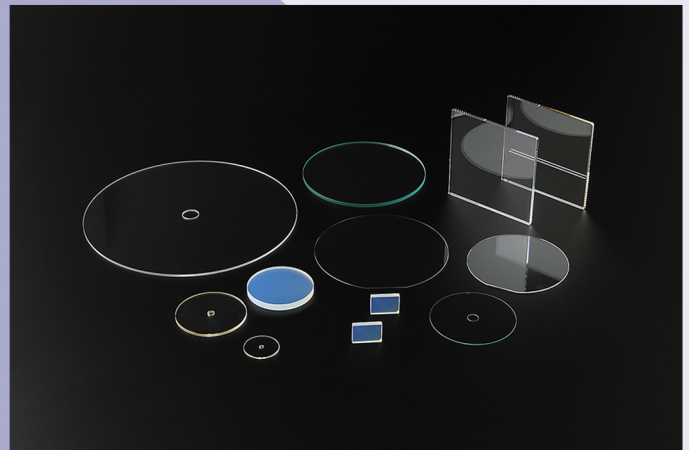
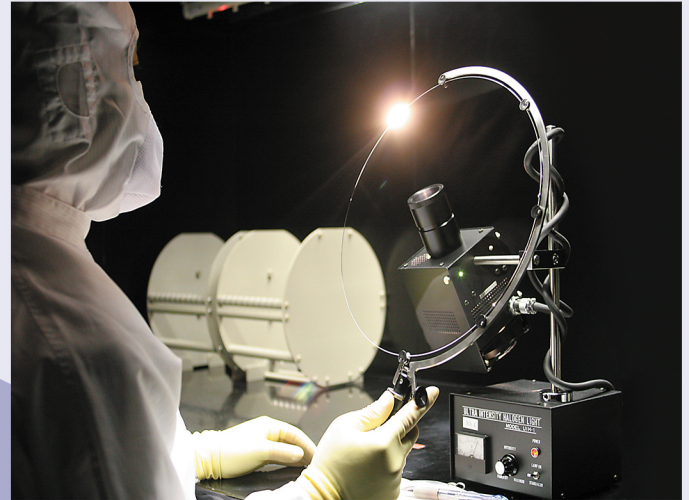
Substrates

Ohara is a world class manufacturer of high quality double-side lapped and polished substrates.

Our high index (nd 1.8-2.001) wafers are ideal for low cost, high performance, consumer applications including AR/VR and other wearable devices.

Advantages

- Sizes up to 12" diameter
- Ultra-thin, can be <200 micron
- Flatness ~ 1 micron
- RMS values ~ 2 Angstroms
- Class 100 clean room
- Megasonic clean line
- Excellent metrology capabilities
- Optical glass, fused silica, sheet glass

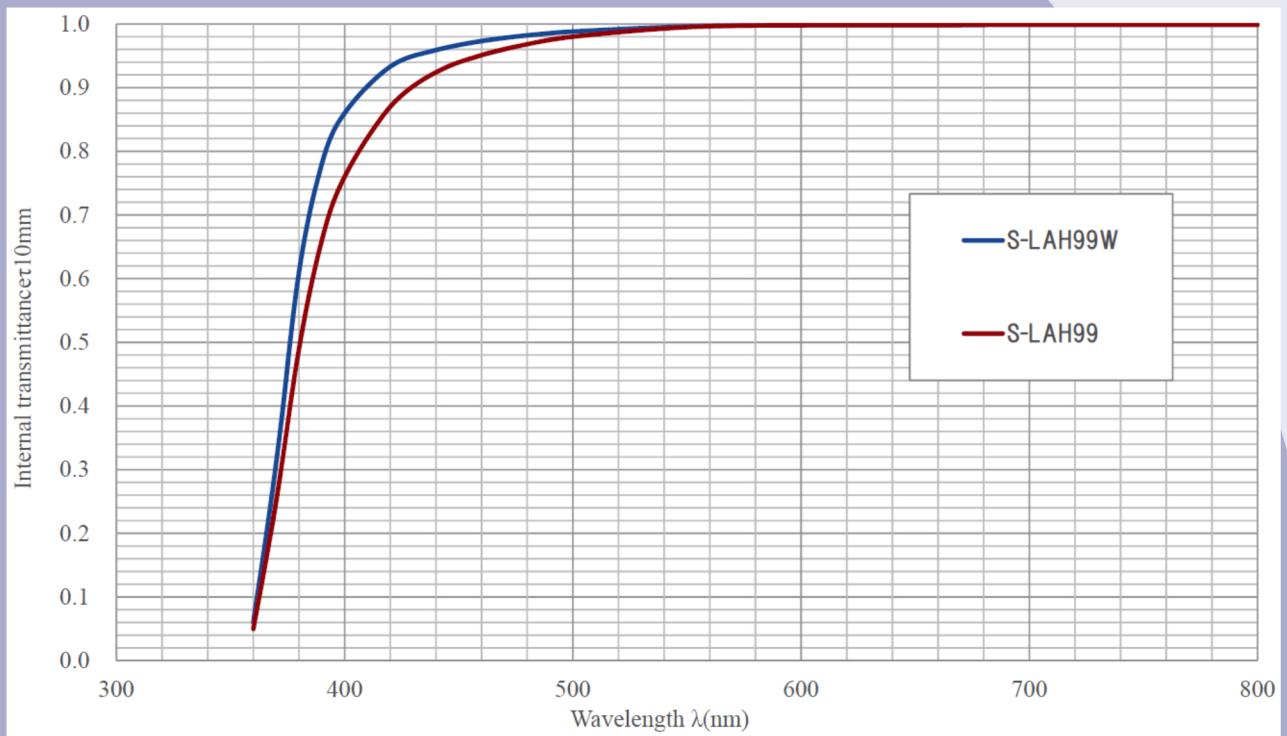


High Refractive Index Wafers

	S-LAH99W	S-LAH99	
Refractive index n_d	2.00100	2.00100	
Abbe number v_d	29.14	29.14	
Partial dispersion ratio $\theta_{g,F}$	0.5997	0.5997	
Deviation of partial dispersion $\Delta\theta_{g,F}$	0.0054	0.0054	
Expansion coefficients $\alpha(10^{-7}K^{-1})$	-30~+70°C	75	75
	+100~+300°C	88	88
Transformation temp T_g (°C)	725	725	
Yield point A_t (°C)	761	761	
Coloring	$\lambda_{80}(\lambda_{70})$	(405)	(425)
	λ_5	360	360
Water resistance $RW_{(p)}$	1	1	
Acid resistance $RA_{(p)}$	1	1	
Weather resistance $W_{(s)}$	1	1	
Acid SR	2.0	2.0	
Phosphate resistance PR	1.0	1.0	
Knoop hardness Hk	720[7]	650[7]	
Abrasion Aa	55	55	

OHARA S-LAH99W

- 2.001 index glass
- Size up to 12" in diameter
- Excellent transmittance
- Low cost for consumer applications
- Outstanding chemical resistance
- Well suited for AR/VR
- High index enables a wider field of view



Internal transmittance of S-LAH99W was improved from S-LAH99