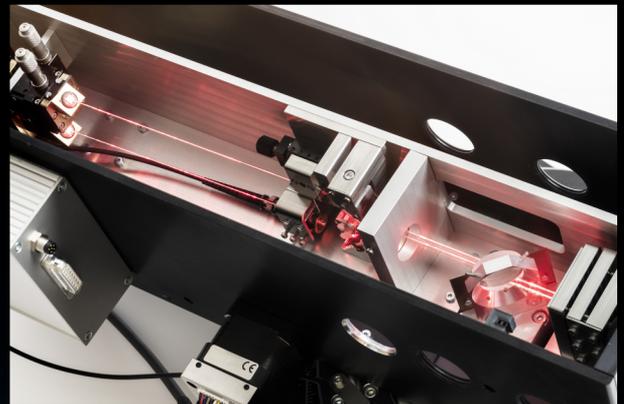
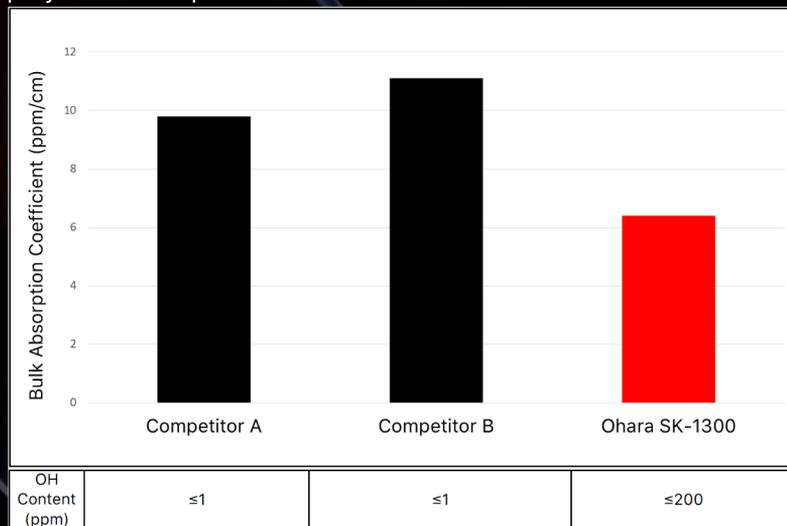


FUSED SILICA

For **HIGH ENERGY LASERS**

Absorption at 1070nm

For laser applications at 1070 nm, the metallic impurities play a more important role than OH content



Photograph courtesy Fraunhofer Institute for Applied Optics

Testing performed by Fraunhofer Institute for Applied Optics

Test parameters

97W (1070nm) Continuous Wave Laser

Sample sizes: 50mm diameter x 12mm thickness

Introducing SK-1300 fused silica for high energy laser applications

- Lowest bulk absorption at 1070 nm due to exceptionally low number of metallic impurities
- Bulk absorption at 1070 nm is superior to our competitors' leading brands of fused silica
- Outstanding heat resistance
- Excellent homogeneity and stress birefringence
- Internal quality – Free of bubbles, inclusions and striae
- No laser damage at 1070 nm in independent lab testing*

*Laser damage threshold measured as 3.2 GW/cm, peak irradiance, by Spica Technologies, Inc.

Ohara SK-1300 showed no laser damage in 10 sites and no observation of heating using a thermal camera

The Future Made Clear

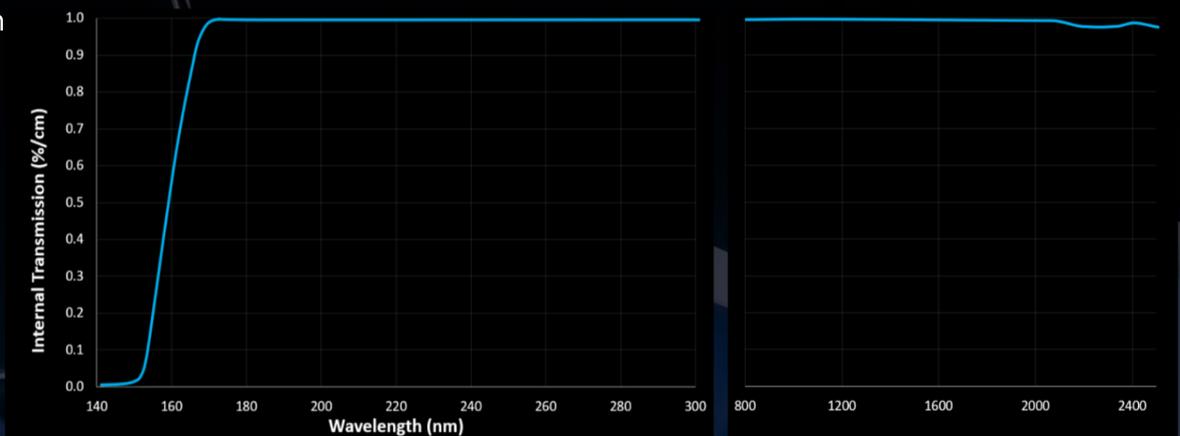
OHARA

SK-1300 Fused Silica

Typical Impurity Analysis

Element	Amount (ppb)	Element	Amount (ppb)
Al	<0.2	Co	<0.01
Fe	<0.5	Ni	<1.0
Ti	<0.1	P	<1.0
Ca	<0.5	B	<0.01
Mg	<0.1	Na	<0.5
Mn	<0.1	K	<0.2
Cr	<0.2	Li	<0.1
Cu	<0.2	Zr	<0.1
<hr/>			
OH	<200 (ppm)		

Internal Transmission (10mm thick sample)



Optical Properties

Property	Value
Refractive Index (nd)	1.45857
Bubbles	0~0.03mm ² /100cm ³
Striae	Grade A per Mil-G-174
Stress Birefringence	10nm/cm or less
Fluorescence	None

The Future Made Clear

OHARA