

Spectrosil® synthetic fused silica is manufactured using a patented, environmentally friendly process resulting in a glass of exceptional purity and excellent visual quality. It is a very homogeneous synthetic fused silica glass for deep UV optical applications.

Spectrosil® 2000 is chlorine-free, free of bubbles and inclusions and due to its ultra-high purity, has exceptional optical transmission in the deep ultraviolet and visible, with a useful range from below 180 nm through to 2000 nm.

Optical Properties

Refractive Index Homogeneity¹ ≤ 10 ppm achievable (must be specified if needed)

Striae Class 5 in Functional Direction

ISO 10110-4

Birefringence / Residual Strain¹⁾ ≤ 5 nm/cm

(Typical values)

Bubbles

Bubble class (DIN 58927) 0

Maximum number of inclusions² 0

Fluorescence³ Free

(254 nm excitations)

1) Stress induced birefringence and optical homogeneity are valid for 80 % of the diameter of an ingot or for 90 % diameter of a machined component.

2) Bubbles and Inclusions with $\varnothing \leq 80 \mu\text{m}$ are not counted. Inclusions free down to 10 μm upon request.

3) Excitation by Hg-Lamp @ $\lambda = 254 \text{ nm}$ and UQ 5-filter; Lamp-power: 8W; Detection: adapted eye

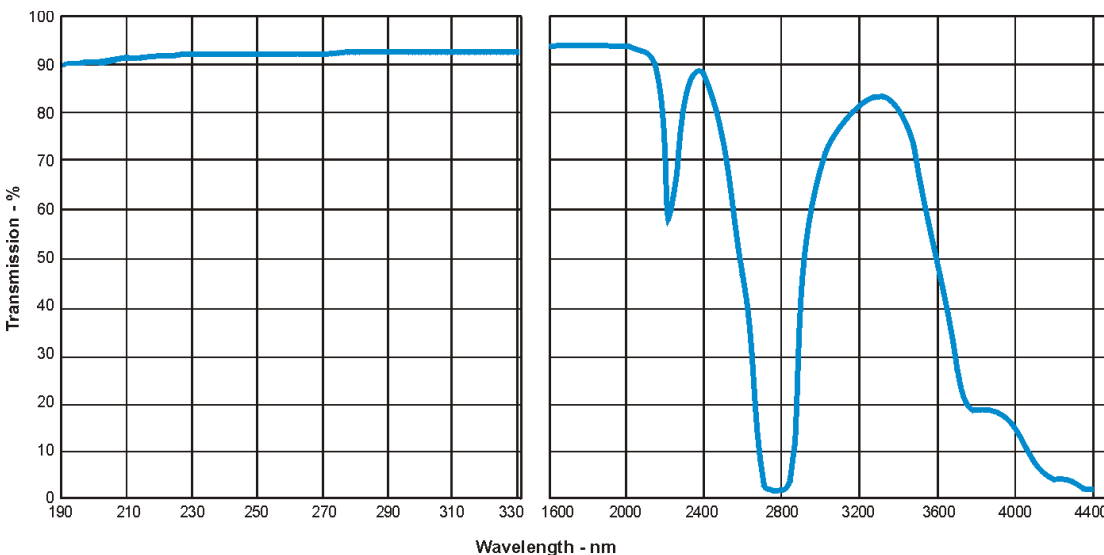
Transmission – Typical Internal Transmission (10 mm path length)

$\lambda = 193.4 \text{ nm}$ $\lambda = 248 \text{ nm}$

Spectrosil® 2000 > 98.5 % > 99.5 %

Typical Transmission Spectrum

Sample thickness 10mm



Typical Trace Elements in ppb
Spectrosil® 2000
(below limits of detection)

Al	Ca	Cr	Cu	Fe	K	Li	Mg	Na	Ti	V	in ppm OH
<10	<15	<1	<3	<5	<10	<1	<5	<10	<5	<5	<1350

WHILE EVERY ATTEMPT HAS BEEN MADE TO VERIFY THE SOURCE OF THE INFORMATION, NO RESPONSIBILITY IS ACCEPTED FOR ACCURACY OF DATA.



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