

Ilmasil™ PO-0

Opaque fused quartz

Material specification

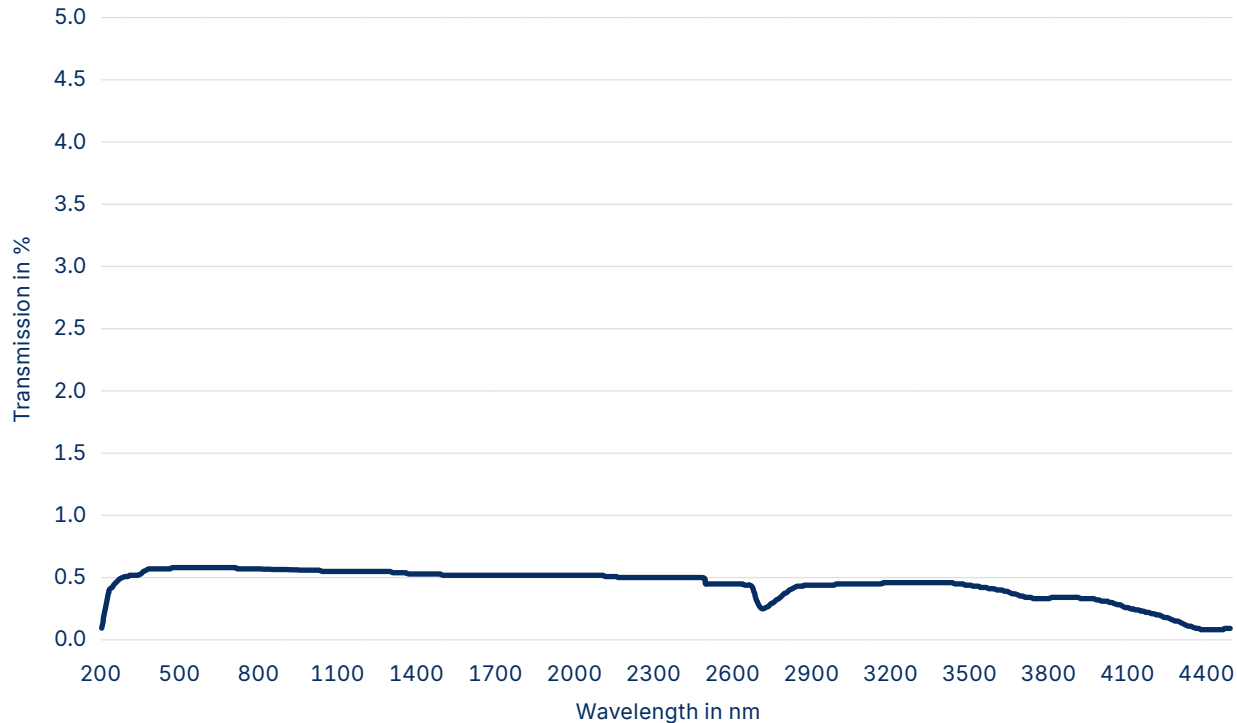
Ilmasil™ PO-0 is an electrically fused, opaque quartz, manufactured by fusing quartz sand using SCHOTT Quartz Glass' propriety plasma melting process. The opacity is achieved by controlled distribution of fine microbubbles. There are no chemical additives used to achieve opacity.

Application

This specification is applicable to all products produced with Ilmasil™ PO-0

Optical properties

Typical transmission



Comment: transmission measured on a plane surface

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Chemical properties

Trace elements

Purity: > 99.9 % SiO₂

Limit: Sum of foreign elements: max. 250 ppm

OH-content

Typical: < 100 ppm*

Tolerance: max. 300 ppm*

* OH-content: values are applicable for non-flameworked material only

Chemical resistances

Hydrolytic resistance per DIN 12111 (1st class)

Acid resistance per DIN 12116 (1st class)

Alkaline resistance per DIN 52322 (1st class)

Thermal properties

Softening point (lg η (in dPas) = 7.6)	ca. 1715 °C
Processing range (lg η (in dPas) = 5 – 8)	1700 – 2100 °C
Max. usable temperature	
Long term	1100 °C
Short term	1300 °C
Coefficient of thermal expansion	
20...300 °C	ca. $5.8 \times 10^{-7} \text{ °K}^{-1}$

Mechanical properties

(at 20 °C)

Density	2.05 ... 2.15 g/cm ³
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