

General Description

ROBAX® is a highly transparent glass-ceramic having virtually zero thermal expansion. It is produced in flat, rolled sheets. ROBAX® is excellent for blocking UV while passing IR.

Applications

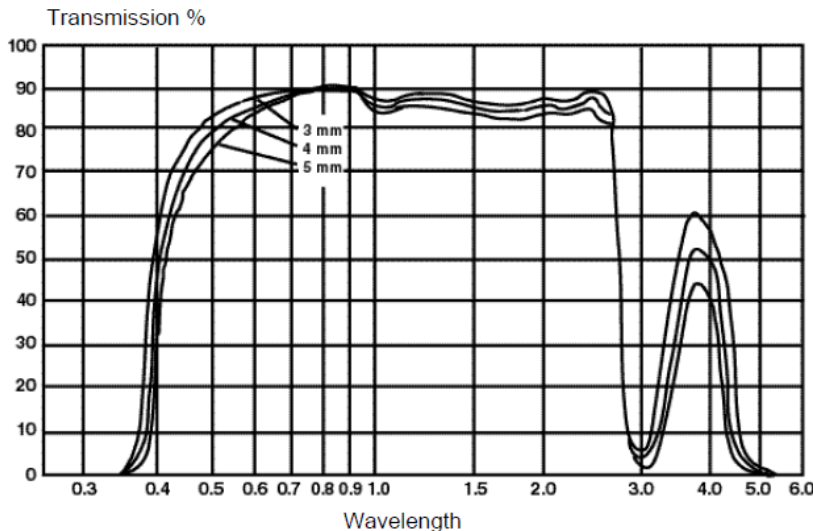
Applications includes: chemical process sight glass, high temperature vision windows, heat insulators, commercial ovens/broilers, architectural and outdoor lighting, electronics and UV lightwave blocking applications.

Dimensions

Flat Panels/Stock Size Sheets

Thickness mm (in)	Sheet Size Minimum usable area mm x mm ± 20 mm (in x in)
3.0 ± 0.2 (0.118 ± 0.008)	790 x 590 (31.1 x 23.2)
5.0 ± 0.2 (0.197 ± 0.008)	1580 x 800 (62.2 x 31.5)

Optical Data



Thermal Data

- Linear Thermal Coefficient of Expansion (symbol) (20 - 700°C) = $(0.0 \pm 0.3) \times 10^{-6} \text{K}^{-1}$
- Thermal Conductivity at 90°C (194°F) 1.6 W/(m°K)

Temperature Shock Resistance (TSR)

The temperature shock resistance (TSR) of glass-ceramic characterizes the ability of a panel to withstand a temperature shock in which cold water is poured onto a hot panel.

As a result of the fact that the thermal linear expansion of ROBAX® is practically zero, the temperature shock caused by sudden cooling with cold water leads to only minor stresses. The shock resistance of ROBAX® is, therefore, normally limited only by the maximum operation temperature.

Maximum Operating Temperature

- Short Term Usage: 760°C/1400°F
- Long Term Usage: 680°C/1256°F

Mechanical Data

- Density at 25° C = 2.58 g/cm²
- Young's Modulus + 92 GPa/13.3 Msi
- Poisson's Ratio + 0.25