

Robax® Thermal characteristics

ROBAX® glass-ceramic panels show a near-zero thermal expansion even under thermal load.

Coefficient of mean linear thermal expansion

 $\alpha_{(20)}$ 700°C / 68 - 1292 °F) (0 ± 0.5) x 10 · 6/K

Resistance to temperature differences (RTD)

The RTD value measures how well a material can resist temperature differences within a defined area. For example, the temperature difference between the hot area in the center of a panel and the cold edge or frame area (room temperature). No breakage caused by thermal stress occurs at a maximum temperature of Tmax ≤ 700 °C (1,292 °F).

Resistance to thermal shock (RTS)

The RTS value measures a hot panel's ability to withstand a sudden thermal shock by cold water (15 °C/59 °F). No breakage caused by thermal stress occurs at a maximum temperature of Tmax ≤ 700 °C (1,292 °F).

Temperature/time loading

The temperature/time loading limits determine the permissible temperature for set usage times at which no breakage caused by thermal stress occurs. The temperature values refer to the hottest points on the outside of the panel.

One must make sure that these temperature/time loading limits are not exceeded. Taking resistance to thermal gradients and thermal shock into account, the following applies:

590 °C (1,094 °F) 1,600 hours Valid for inhomogeneous heating.

