

5.2.5 Resistance to thermal shock (RTS)

The resistance to thermal shock is a measure of a panel's ability to withstand a sudden thermal shock (e.g. splashing water on a hot room heater window).

Measurement method:

Test panels with defined surface damage (with SiC 220 grade sandpaper) are heated up and then 50 ml of cold water (room temperature) is poured on them in the centre. The RTS value as quoted is the difference between the temperature of the hot panel and the temperature of the cold water, where $\leq 5\%$ of the test pieces are rejected due to breakage.

As the linear thermal expansion is virtually zero the thermal shock produced by quenching with cold water only sets up minor stress. The thermal shock resistance of ROBAX® is only limited by its maximum operating temperature.

5.2.6 Maximum operating temperatures (taking into account 5.3 and 5.4)

For short-term usage (total < 100 h): $T_{\max} = 750$ °C *)

For long-term usage (total 100 h to 10 000 h): $T_{\max} = 680$ °C *)

The maximum operating temperatures indicated only apply if the RTG values quoted above are also observed.

*) Note: Other temperatures apply to ROBAX® IR (see point 4.5.2).