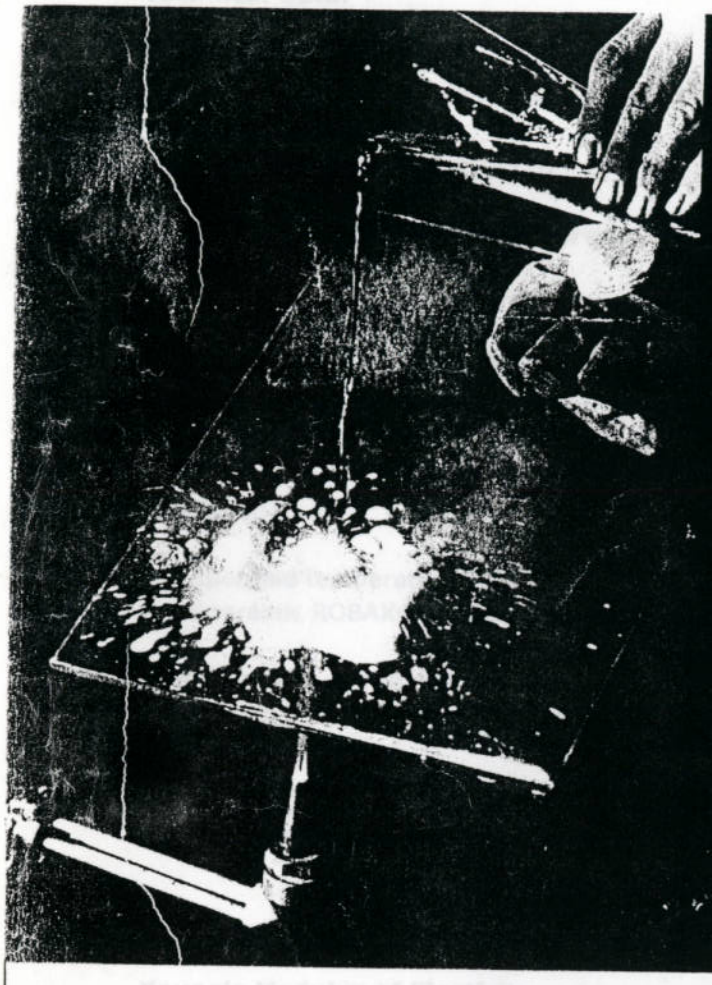


1400° F. RATED SUPER GLASS

PHYSICAL PROPERTIES OF 1400° TRANSPARENT GLASS-CERAMIC

° F. Normal Service	° F. Extreme Service	° F. Thermal Shock	IN/IN/° F. Coefficient of Thermal Expansion
1400	1475	1400	$\pm 1.0 \times 10^{-7}$

NOW . . . one glass can supply all of your high temperature requirements. Unlike tempered glass, 1400° Glass-Ceramic is unstressed. It can easily be cut and finished using standard glass cutting tools.

Easily cut and sanded - even drilled. Will not shatter (like tempered glass). Good strength. Fire to Ice without breaking.

This is an excellent replacement in most applications for any of the following glasses — PYREX®, TEMPEX®, VYCOR®, PYROCERAM®, NEOCERAM®, and ROBAX®. Typical applications include —

Woodstove and Coal Stove Windows. Fireplace Doors. Oven Door Windows. High-intensity Light Covers. Furnace Observation Windows. Barbecue Grill Windows. Grill Covers and Trivets. Spark and Flame Guard Panels.

SCHOTT
glass made of ideas

http://schott-com.dbc-gmbh.com/whitegoods/english/products/robax/facts.html

Technical Data:

Extremely low thermal expansion
Coefficient of mean linear thermal expansion

$\alpha_{(20 - 700\ °C)} = (0,0 +/- 0,3) \times (10^{-6}\ K^{-1})$

Maximum Operating Temperatures

- Short-term usage (< 100 h): T_{max} = 750 °C
- Long-term usage (≥100 h): T_{max} = 680 °C

Remarks:

The specified temperature and time load limits must be observed in glass ceramic ROBAX® applications.

It must be ensured that these temperature and time load limits are not exceeded during use, otherwise tension breakage may result.

Density

- ρ = 2,6 g/cm^3 (bei 25 °C)

Young's Modulus of Elasticity

- E = < 95 x 10^9 Pa

The test is carried out following DIN 13316.
A tensile or compressive load is applied to a rod-shaped test piece to produce a change in length, the amount of which depends on the material and the load. The modulus of elasticity describes the relationship between the tension and the material's change in length.

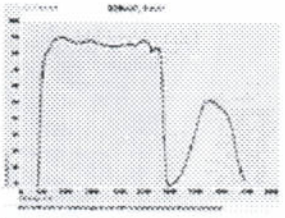
Modulus of Elasticity

Example:
Low modulus of elasticity: High deformation or deformation at low stress
High modulus of elasticity: Low deformation or deformation only under high stress

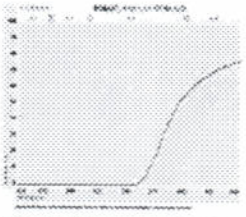
In comparison: Rubber has a modulus of elasticity of 0,05 kN/mm^2, aluminium has 73 kN/mm^2 and glass has 60–90 kN/mm^2.

Transmission for ROBAX® (transparent glass ceramic)

These graphs are based on individual measurements. Therefore, production.related variations may occur.



ROBAX®, 4 mm



ROBAX®, 4 mm, in UV range

If you have any questions, or would you like to request product information?
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