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# neoceram

Technical information



# General technical properties

Glass types				Neoceram		
				neoclear®	neowhite	neoblack
Colour				transparent	weiß	transluzent schwarz
Thermal properties	Thermal expansion coefficient	x10 <sup>-7</sup> /K	-50~0°C	-6	0	-4
			0-50°C	-4	4	-3
			30-380°C	-1	10	-1
			30-750°C	1	13	1
	Specific heat	J/kg • K	25°C	800	800	800
	Thermal conductivity	W/m • K	25°C	1,6	1,6	1,7
	Max. application temperature *	°C	Long term	750	800	750
			Short term	800	900	800
Thermal shock resistance **	°C	Plate 100x100x3	800	550	800	
Optical properties	Index of refraction (n <sub>D</sub> )			1,54	-	1,55
	Abbe's Number (v <sub>d</sub> )			57	-	-
	Photoelasticity coefficient	x10 <sup>-6</sup> mm <sup>2</sup> /N	25°C	3,1	-	-

\* Determination of application temperature is based on mechanical deformation of 1 mm (specimen size 100x300x3.8 mm, span 280 mm) after 1.000 h long term or 24 h short term heating.

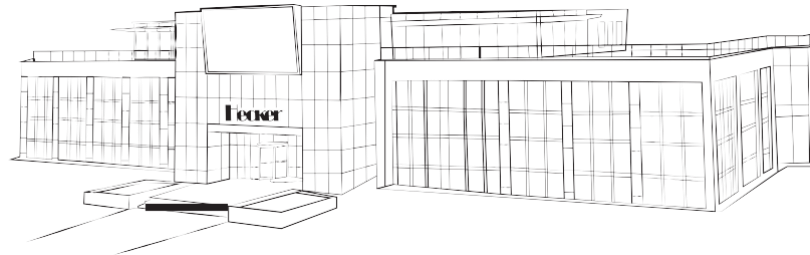
\*\* These figures are only general values. 100 °C temperature shock resistance means: Sheets have been heated up to 110 °C and plunged into water at 10°C without exhibiting cracking.

Mechanical properties	Density	X 10 <sup>3</sup> kg/m <sup>3</sup>		2,5	2,5	2,5
	Bending strength JIS R-1601	Mpa		170	220	160
	Vicker's hardness H <sub>v</sub> (0,2)			700	800	730
	Young's modulus	Gpa		94	86	94
Chemical properties	Acid resistance (5% HCl)	mg/cm <sup>2</sup>	90°C, 24 hrs	0,05	0,1	0,02
	Alkali resistance (5% Na <sub>2</sub> CO <sub>3</sub> )	mg/cm <sup>2</sup>	90°C, 24 hrs	0,3	0,8	0,2
Electrical properties	Volume resistivity Log ρ	Ω • cm	25°C	13	13	13
			250°C	7	7	7
			350°C	5	6	5
	Dielectric constant ε		1MHz, 25°C	8	6	7
			2,45GHz, 25°C	-	6	18
	Dielectric loss tangent tan δ	X 10 <sup>-3</sup>	1MHz, 25°C	19	3	19
2,45GHz, 25°C			-	6	-	

All indicated values and data represent our current state of knowledge and are based on experience, bibliographical reference, measurements or manufacturer information. Not all manufacturers' information has been verified by us respectively not all information is subject to revision. Depending on test and installation conditions and type or model, results can fall below or exceed the indicated values.

All indicated values are for your information. It is not possible to derive from them a legally binding warranty with respect to the suitability of the product for a defined application and no liability can be accepted for potentially occurring damage.

We reserve the right to carry out updates and/or alterations without notification.



Hecker Glaskeramik GmbH & Co. KG

Schleefstraße 5  
44287 Dortmund  
Germany

[www.hecker.de](http://www.hecker.de)



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