KAVALIER

TECHNICAL DATA

Issuer´s name/ producer: **KAVALIERGLASS, a.s.**
Issuer´s address/Producer: **Křížová 1018/6, Prague 5**
office: Sklářská 359, 285 06 Sázava, Czech Republic

Glass type: **Borosilicate glass 3.3. acc. to ISO 3585, glass with high thermal and chemical resistence**

Purpose of use: Technical and laboratory glass products, industrial equipment, household glassware

Chemical properties:

• Hydrolytic resistance	water at 98 °C	ISO 719	**HGB1**
	water at 121 °C	ISO 720	**HGA1**
	glass grains, test B	Ph. Eur., chap. 3.2.1	**HGA1**
• Acid resistance		ISO 1776	**1**
• Alkali resistance		ISO 695	**A2**

The heavy metal content for the elements lead, cadmium, mercury and hexavalent chromium **below 100 ppm**

Physical Properties:

Coefficient of mean linear thermal expansion α	(20/300°C)	ISO 7991	(3,3 ± 0,1) x10^{-6} K^{-1}
Density ρ			(2,23 ± 0,02) g.cm^{-3}
Thermal conductivity	at 100°C		1,2 W.m^{-1}.K^{-1}
Temperatures at viscosity of *η* in *dPa.s*	10^4 working point	ISO 7884	1260 °C
	$10^{7,6}$ softening point	ISO 7884	820 °C
	$10^{13,2}$ annealing point	ISO 7884	558 °C
Transformation temperature T_g		ISO 7884-8	525 °C
Modulus of elasticity /Young's modulus (E)			63x10^3 MPa
Poisson's ratio			0,19

Optical Properties:

Simax glass refractive index (λ = 589.30 nm) n_d	1,472
Photoelastic constant	3,6.10-6 MPa^{-1}
Solar transmittance	≥ 91,8% λ = (300 – 2500)nm

Electrical Properties:

At current temperatures, SIMAX glass mass is non-conducting material – it is an insulant.

Specific electric resistance in a moisture-free medium (20 °C)	greater than 1013 – 1015 W×cm
Permittivity ε (20 °C, 1 MHz)	4,6
Loss angle tg δ	4,9 . 10^{-3}

21.01.2021, Sázava
Date and place

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Project Quality Engineer

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