



DATA SHEET

SCHOTT B270 SUPERWITE®

B 270 Superwite® is a clear, high transmission crown glass produced by melting high purity raw materials. B 270 Superwite® is marked by a high transmission in the range of the visible radiation and in the UV and IR ranges. Colour neutrality and outstanding transmission properties are two features of B270 Superwite® that have opened up a wide range of possible applications. Wherever light has to be transferred without undergoing any adverse change, clearly and without obstruction, B270 Superwite® is an important element in solving a problem.

OPTICAL PROPERTIES

Refractive indices (condition annealed 40°C/h)	n_e	1.5251 ± 0.001 (±0.0003 upon request)	
	n_d	1.5230	
Abbe value	v_e	58.3 ± 0.6	
	v_d	58.5	
Luminous transmittance t_v dependent on glass thickness and CIE standard luminant	Thickness [mm]	Standard	Illuminant
		D65	A
		[%]	[%]
	2.0	91.7	91.7
4.0	91.6	91.6	
15.0	91.0	91.0	

THERMAL PROPERTIES

Viscosities and corresponding temperatures Strain point Annealing point Softening point	Viscosity log η [dPas]	Temperature v [°C]
	14.5	511
	13.0	541
	7.6	724
Transformation temperature T_g in °C		533
Coefficient of mean linear thermal expansion in the temperature range of 20 - 300 °C (statistic measurement)	$\alpha(20-300^\circ\text{C})$	$(9.4 \pm 0.1) \cdot 10^{-6\text{K}^{-1}}$

MECHANICAL PROPERTIES

Density ρ in g/cm ³	2.55	
Young's modulus E in kN/mm ²	71.5	
Poisson's ratio μ	0.219	
Torsion Modulus E in kN/mm ²	29.3	
Knoop Hardness HK_{100}	542	

CHEMICAL PROPERTIES

Hydrolytic resistance as per DIN ISO 719 hydrolytic class Basic equivalent Na_2O per each gram glass grit ($\mu\text{g/g}$)	HGB 3 170
Resistance to acids as per DIN 12 116 Alkaline class Surface weight loss after 6 hours in mg/dm^2	2 1.4
Resistance to Alkalis as per DIN ISO 695 Alkaline class Surface weight loss after 3 hours in mg/dm^2	2 140

WHILE EVERY ATTEMPT HAS BEEN MADE TO VERIFY THE SOURCE OF THE INFORMATION, NO RESPONSIBILITY IS ACCEPTED FOR ACCURACY OF DATA.

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