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

THERMAL PROPERTIES

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

MECHANICAL PROPERTIES

Density p in g/cm³	2.55	
Young's modulus E in kN/mm²	71.5	
Poissonn's ratio µ	0.219	
Torsion Modulus E in kN/mm²	29.3	
Knoop Hardness HK_{100}	542	

CHEMICAL PROPERTIES

Hydrolytic resistance as per DIN ISO 719 hydrolytic class Basic equivalent Na2O per each gram glass grit (µg/g)	 HGB 3 170
Resistance to acids as per DIN 12 116 Alkaline class Surface weight loss after 6 hours in mg/dm²	 2 1.4
Resistance to Alkalis as per DIN ISO 695 Alkaline class Surface weight loss after 3 hours in mg/dm²	 2 140

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