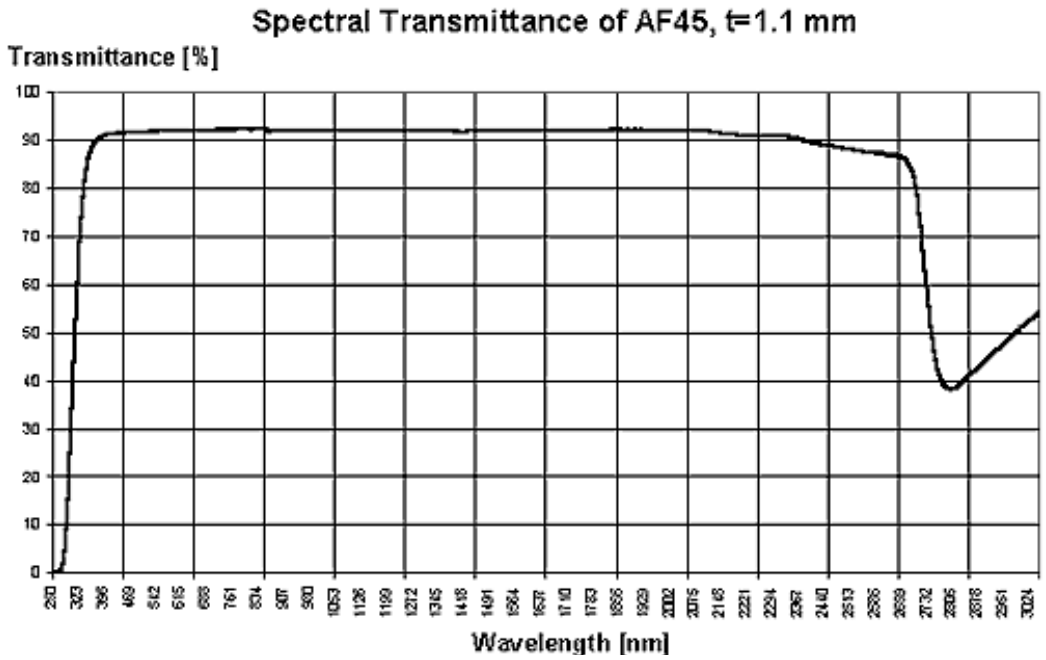
DATA SHEET

SCHOTT® AF45



Optical Properties

Refractive Indices		
Pretreatment of Samples	n_g	1.5359
Condition as supplied [´as drawn´]	$n_{F'}$	1.5318
	n_F	1.5313
	n_e	1.5275
	n_d	1.5255
	n_D	1.5254
	$n_{C'}$	1.5233
	n_C	1.5229

Mechanical Properties

Density ρ in g/cm^3 (annealed at 40°C/h)	2.72
Stress Optical Coefficient C in 1.02 · 10^{-12} m^2/N	3.2
Young´s Modulus E in kN/mm^2	66.0
Poisson´s Ratio μ	0.235
Torsion Modulus G in kN/mm^2	26.7
Knoop Hardness HK_{100}	555
Density ρ in g/cm^3 (annealed at 40°C/h)	2.72

UQG (Optics) Ltd. The Norman Industrial Estate, 99-101 Cambridge Road, Milton, Cambridge CB24 6AT. England.
Tel | **+00 44 (0) 1223 420329** Fax | **+00 44 (0) 1223 420506** Email | info@uqgoptics.com

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Electrical Properties

Dielectric Constant (Permittivity) ε_r at 1 MHz	6.2
Dissipation Factor tan δ at 1 MHz	$9 \cdot 10^{-4}$
Electric Volume Resistivity ρ_D in Ω · cm at the Specified Temperatures ρ_D for Direct Current	
θ = 250 °C	$6.0 \cdot 10^{13}$
θ = 350 °C	$3.2 \cdot 10^{11}$
θ = 500°C	$1.6 \cdot 10^{9}$
Temperature t_{k100} in °C for a Specific Electric	
Volume Resistivity of 10^8 Ω · cm	610

Thermal Properties

Viscosity and Corresponding Temperature		
Designation	Viscosity log η [dPas]	Temperature θ [°C]
Strain Point	14.5	627
Annealing Point	13.0	663
Softening Point	7.6	883
Transformation Temperature T_g in °C	662	
Coefficient of Termal Expansion α		
Coefficient of Mean Linear Thermal Expansion $\alpha_{(20\text{-}300°C)}$ in 10^{-6} K^{-1} (Static Measurement)	4.5	

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