

## Chemical and Physical Properties of Weierhammer OPTIFLOAT

(SODA LIME GLASS)

Typical composition:					
% by Weight	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	RO(CaO+MgO)	R <sub>2</sub> O(Na <sub>2</sub> O+K <sub>2</sub> O)
	72-73 %	0,5-0,7 %	0,10-0,12 %	12,9-13,1 %	13,2-13,5 %
Transmission T <sub>L</sub> (Auge * D65) for glass thicknesses of					
1 mm	T <sub>L</sub> = 91,3 % ± 1 %	5 mm	T <sub>L</sub> = 89,1 % ± 1 %		
1,2 mm	T <sub>L</sub> = 91,2 % ± 1 %	6 mm	T <sub>L</sub> = 88,6 % ± 1 %		
1,6 mm	T <sub>L</sub> = 90,9 % ± 1 %	8 mm	T <sub>L</sub> = 87,6 % ± 1 %		
2 mm	T <sub>L</sub> = 90,7 % ± 1 %	10 mm	T <sub>L</sub> = 86,5 % ± 1 %		
3 mm	T <sub>L</sub> = 90,2 % ± 1 %	12 mm	T <sub>L</sub> = 85,5 % ± 1 %		
4 mm	T <sub>L</sub> = 89,7 % ± 1 %				
Refractive index	n <sub>D</sub> = 1,52				
Density	ρ = 2,5 kg/dm <sup>3</sup>				
Coefficient of thermal expansion	α = 9 · 10 <sup>-6</sup> K <sup>-1</sup>				
Thermal conductivity	1,0 W/mK				
Young's modulus	7,3 · 10 <sup>4</sup> N/mm <sup>2</sup>				
Poissons ratio	0,23				
Strain point	Logη = 13,5; T ~ 526°C				
Transformation temperature	Logη = 12,3; T ~ 552°C				
Annealing point	Logη = 12,0; T ~ 559°C				
Dilatometric start of softening	Logη = 10,3; T ~ 600°C				
Softening point (η = Viscosity in Pa.s)	Logη = 6,6; T ~ 732°C				
Alkaline resistance	class 1 - 2				
Acid resistance	class 1				
Hydrolytic resistance	class 3				