

Calculation SommerGlobal

Project: 2018_04_11

Position: 01

Layer assembly (external to internal)

No.	CL	Name	mm
1		Float ExtraClear	8,00
2		90% Argon	18,00
3	3	ClimaGuard Premium2 (εn=3%)	
4		Float ExtraClear	8,00
			34,00

Rw (C;Ctr) dB = npd

Transmittance, reflectance, absorption

$\rho_V = 0,1200$ (external light reflectance)

$\rho'_V = 0,1224$ (internal light reflectance)

$\rho_e = 0,2449$ (external solar direct reflectance)

$\rho'_e = 0,2449$ (internal solar direct reflectance)

$\alpha_e 1 = 0,1357$; $3 = 0,0833$ (solar direct absorptance)

EN 410

SC = 0,7049 (Shading Coefficient, g/0,87)

b-Factor = 0,7666 (VDI 2078, g/0,80)

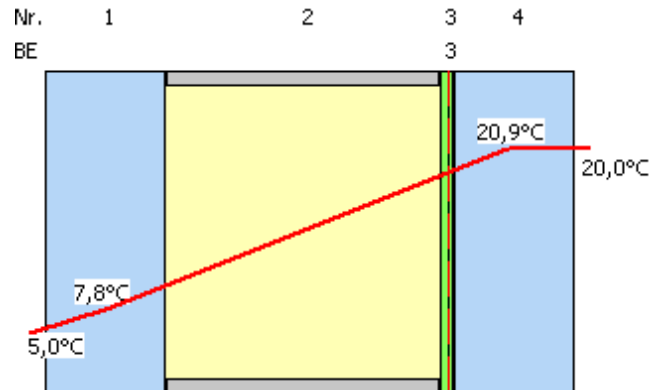
EN 673 Installation angle = 90° vertical

EN 13363-2 $T_e = 5,00\text{ °C}$ $T_i = 20,00\text{ °C}$

$g_{th} = 0,0446$ (thermal radiation factor)

$g_c = 0,0335$ (convection factor)

$g_v = 0,0000$ (ventilation factor)



$T_{UV} = 0,3176$ (ultraviolet transmittance)

$T_V = 0,8016$ (light transmittance)

$T_e = 0,5361$ (solar direct transmittance)

$R_a = 96,97$ (general colour rendering index)

$q_i = 0,0772$ (secondary internal heat transfer factor)

$g = 0,6133$ (total solar energy transmittance (solar factor))

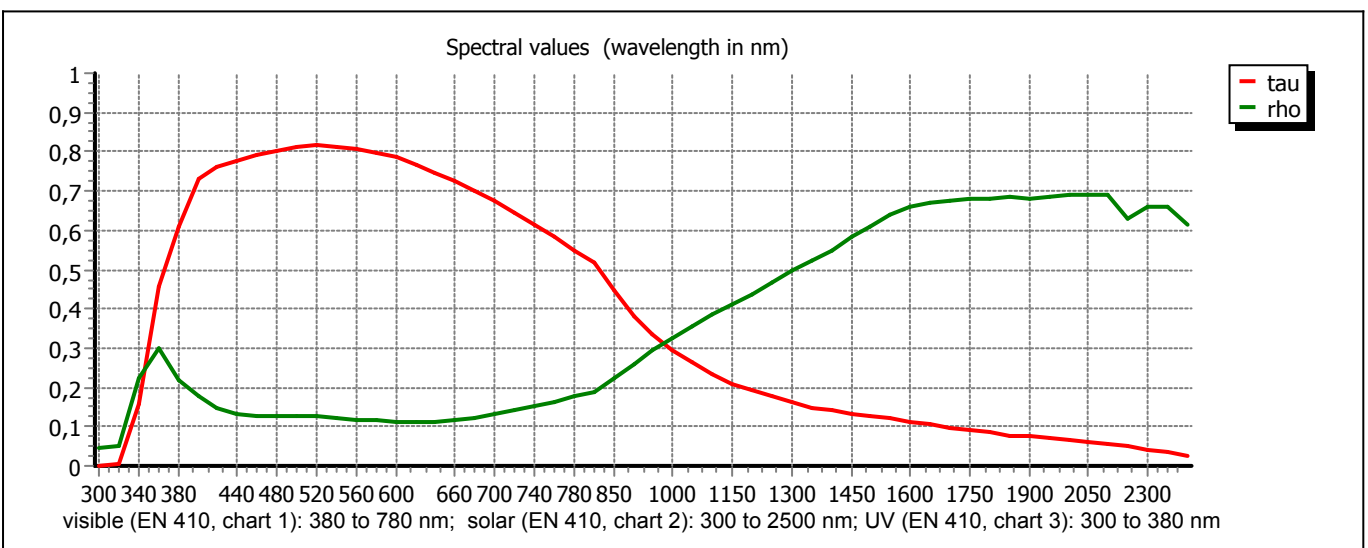
$U_g = 1,1277\text{ W/m}^2\text{K}$ (heat flow coefficient)

$E_s = 300,00\text{ W/m}^2$ Height of installation = 1,50 m

$h_{c,e} = 18,00\text{ W/m}^2\text{K}$ $h_{c,i} = 3,60\text{ W/m}^2\text{K}$

$q_i = 0,0781$ (secondary internal heat transfer factor)

$g = 0,6142$ (total solar energy transmittance (solar factor))



Variations of the light and radiation characteristics are possible caused by the chemical composition of glass and the production process. The specified values consider accredited tolerances of the finished product, the basic glass and the coating in accordance to the respective product standards. The result is no information about the technical feasibility.

EN 410. EN 673. EN 13363-2