

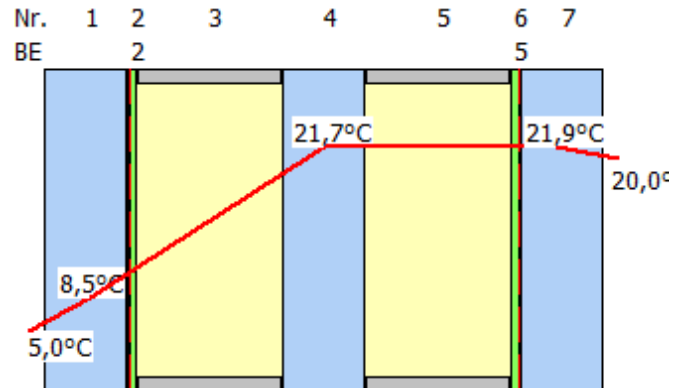
Calculation SommerGlobal

Project: Therma.Dura

Position: 01

Layer assembly (external to internal)

No.	CL	Name	mm
1		Float ExtraClear	8,00
2	2	ClimaGuard Premium2 (εn=3%)	
3		90% Argon	14,00
4		Float ExtraClear	8,00
5		90% Argon	14,00
6	5	ClimaGuard Premium2 (εn=3%)	
7		Float ExtraClear	8,00
			52,00



Rw (C;Ctr) dB = npd

Transmittance, reflectance, absorption

$\rho_v = 0,1543$ (external light reflectance)

$\rho'_v = 0,1543$ (internal light reflectance)

$\rho_e = 0,2824$ (external solar direct reflectance)

$\rho'_e = 0,2824$ (internal solar direct reflectance)

$\alpha_e 1 = 0,1806$; 3 = 0,0638; 5 = 0,0543 (solar direct absorptance)

$T_{UV} = 0,1869$ (ultraviolet transmittance)

$T_v = 0,7192$ (light transmittance)

$T_e = 0,4189$ (solar direct transmittance)

$R_a = 95,86$ (general colour rendering index)

EN 410

SC = 0,5786 (Shading Coefficient, g/0,87)

b-Factor = 0,6292 (VDI 2078, g/0,80)

$q_i = 0,0845$ (secondary internal heat transfer factor)

$g = 0,5034$ (total solar energy transmittance (solar factor))

EN 673 Installation angle = 90° vertical

$U_g = 0,6355 \text{ W/m}^2\text{K}$ (heat flow coefficient)

EN 13363-2 $T_e = 5,00 \text{ }^\circ\text{C}$ $T_i = 20,00 \text{ }^\circ\text{C}$ $E_s = 300,0 \text{ W/m}^2$ Height of installation = 1,50 m

$g_{th} = 0,0503$ (thermal radiation factor)

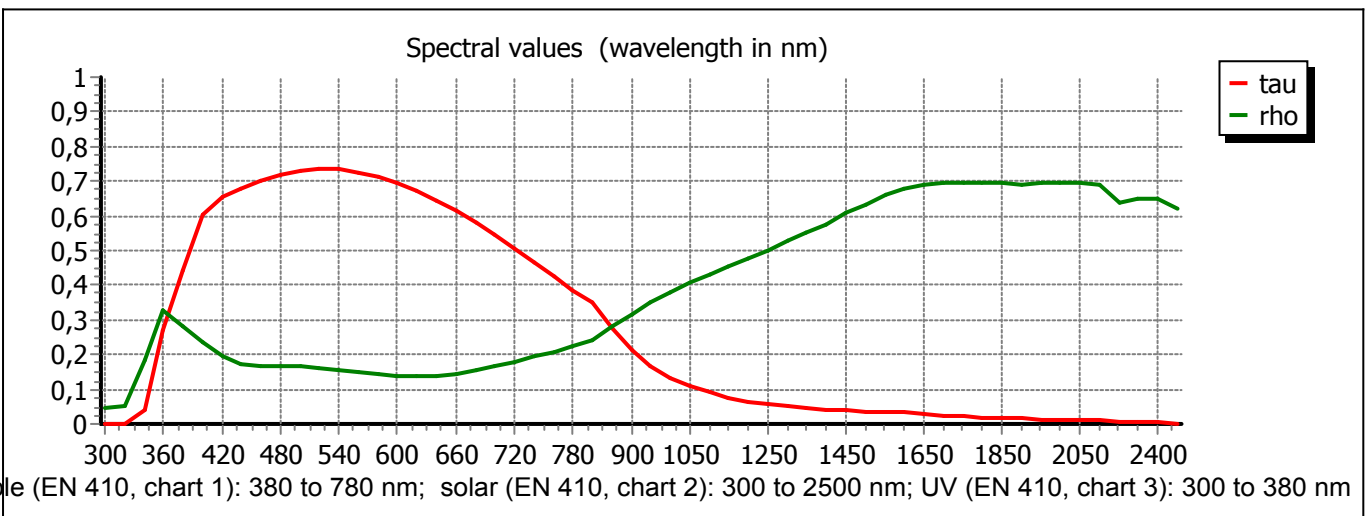
$h_{c,e} = 18 \text{ W/m}^2\text{K}$ $h_{c,i} = 3,6 \text{ W/m}^2\text{K}$

$g_c = 0,0377$ (convection factor)

$q_i = 0,0880$ (secondary internal heat transfer factor)

$g_v = 0,0000$ (ventilation factor)

$g = 0,5069$ (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