GUARDIAN CONFIGURATOR
GLASS PERFORMANCE CALCULATOR

TNO Relations Label
TNO Science and Industry confirms to have verified the calculation engine of the Guardian Configurator 3.0 to be compliant to EN 410 and EN 673

date : 13.09.2012
database version : 08.12.2011 / K
version : 3.0

calculation in accordance to EN 410

Glazing from outside to inside 38.00 mm

pane1	substrate	Guardian Float Glass ExtraClear, 4.00 mm
	coating on pos.2	Guardian ClimaGuard 1.0
spacer/gas1		13 mm / air 10%, argon 90%
pane2	substrate	Guardian Float Glass ExtraClear, 4.00 mm
spacer/gas2		13 mm / air 10%, argon 90%
pane3	coating on pos.5	Guardian ClimaGuard 1.0
	substrate	Guardian Float Glass ExtraClear, 4.00 mm

Results

UV :

transmittance [%] :	τ_{UV}	=	12,3

light :

transmittance for standard illuminant D65 [%] :	τ_V	=	55,2
reflectance for standard illuminant D65 [%] (*):	ρ_V	=	29,8
reflectance for standard illuminant D65 [%] (**):	ρ_V	=	29,8
general colour rendering index [%] :	R_a	=	95,8

energy :

solar direct transmittance [%] :	τ_e	=	30,5
solar direct reflectance [%] (*):	ρ_e	=	46,4
solar direct reflectance [%] (**):	ρ_e	=	46,4
solar direct absorption [%] (*):	a	=	23,1
secondary internal heat transfer factor [%] (*):	q_i	=	6,8
total solar energy transmittance (solar factor) [%] (*):	g	=	37,3
shading coefficient (=g/0,87) (*):	sc	=	0,43

thermal conductance (U-value) [W/m²K] (EN 673):	U_g	=	0,6

slope [°] : α=90,0

(*) incident radiation from the outside

(**) incident radiation from the inside

The calculated values are for orientation only and do not offer any guarantee regarding the fabrication of the un- intended end- product.
Glass configurations do not amount to a guarantee of product availability.