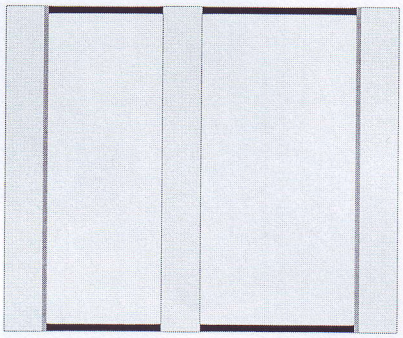
SAINT-GOBAIN
GLASS

13 September 2011

Glazing design



Outdoor Indoor

	First glazing	Second glazing	Third glazing
Gas		Argon 90% 12mm	Argon 90% 16mm
Coating			PLANITHERM ULTRA N
First glass	PLANILUX 4mm	PLANILUX 4mm	PLANILUX 4mm
Coating	PLANITHERM ULTRA N		
Layer			
Coating			
Second glass			
Coating			

Manufacturing sizes

Nominal thickness :	**40.0**	**mm**
Weight :	**30.0**	**kg/m²**

Luminous factors

Transmittance :	**71**	**%**
Outdoor reflectance :	**15**	**%**
Indoor reflectance :	**15**	**%**

Energy factors EN 410

Transmittance :	**42**	**%**
Outdoor reflectance :	**31**	**%**
Indoor reflectance :	**31**	**%**
Absorptance A1 :	**16**	**%**
Absorptance A2 :	**5**	**%**
Absorptance A3 :	**6**	**%**
Solar factor g :	**0.50**	
Shading coefficient :	**0.58**	

Thermal transmission - 0° related to vertical position

Ug :	**0.6**	**W/(m²/K)**

Calumen II

CALUMEN® II is a simulation software to calculate key performance of glass such as light transmission, solar factor or thermal insulation coefficient. Computed values are indicative and subject to change. They can not be used to guarantee performance of the products. These values are calculated according to EN410 and EN673 standards. Tolerances are defined according to EN 1096-4 standard.
Nevertheless, user must check the feasibility of the associated products, in particular in terms of thickness and colour. Furthermore, it is his responsibility to check that the resulting combination of glazing meets regulatory requirements at national, local or regional level.

Calculation rules and functionnal output of Calumen II have been validated by TÜV Rheinland Quality / TNO quality – Report 10190R-10.26687