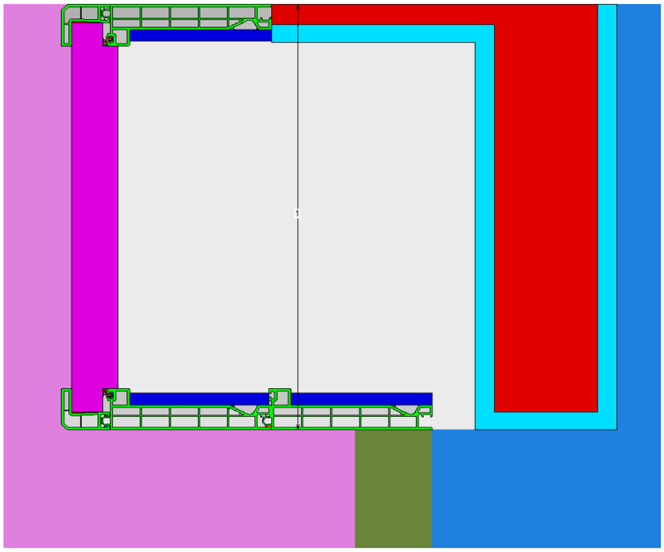
CALCULATION REPORT

Thermal transmittance of a shutter box

Profile supplier	Deceuninck
Profile system	ITALINFISSI S.r.l.
Frame ID	
Standard	UNI EN ISO 10077-2:2018
Software	Bisco v11
Calculator	
Date	21/11/2022

Simulation input data

Model



Boundary conditions

Colour ID	Name	Temperature [°C]	Surface resistance [m².K/W]
170	exterior	0	0.04
174	interior (normal), horizontal heat flow	20	0.13
191	adiabatic	0	∞
251	cavity slightly ventilated outdoors side	0	0.3

Materials

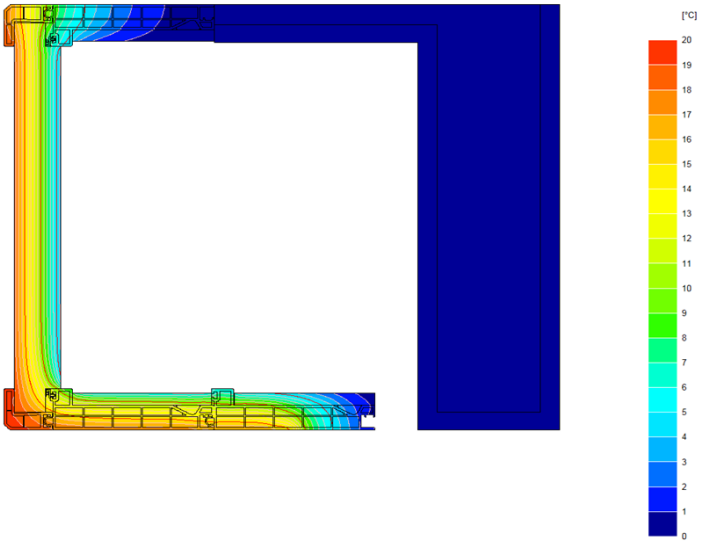
Colour ID	Name	Thermal conductivity [W/(m.K)]	Emissivity [-]	UNI EN ISO 10077-2:2018 Annex D
3	PVC rigid	0.17	0.9	x
36	Brick	0.4	0.9	
60	EPDM	0.25	0.9	x
69	Plaster	0.8	0.9	
98	PE foam	0.036	0.9	
166	Termopor EPS	0.030	0.9	
253	cavity <1x1 mm2	0.028	0.9	
	unventilated air cavities - radiosity method			

Calculation result

Thermal transmittance of the shutter box, U_{sb}	1.2 (1.230)	W/(m².K)
Total heat flow rate, Φ	8.856	W/m
Temperature difference between environments	20	°C
Thermal conductance, L^{2D}	0.443	W/(m.K)
Height of the roller shutter box, b_{sb}	0.3599	m

Graphic output

Isothermal lines



Heat flow lines