

Cassonetto in PVC, semi-ventilato, con prolunga sul lato basso, pannello frontale da 24mm, isolante interno in EPS da 10mm, veletta esterna in mattone forato da 80mm intonacato

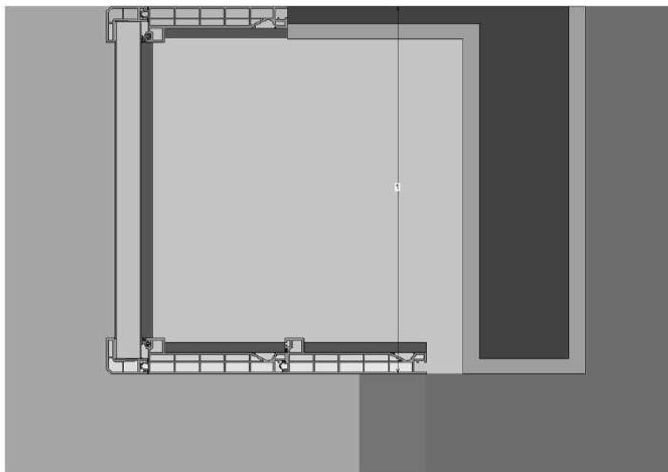
VALORE Usb = 1,3 w/m²K

Thermal transmittance of a shutter box

Profile supplier	Deceuninck
Profile system	
Frame ID	Renovation Box; 24 mm xps panel; 10 mm eps termopor
Standard	EN ISO 10077-2:2018
Software	Bisco v11
Calculator	
Date	05/03/2021

Simulation input data

Model

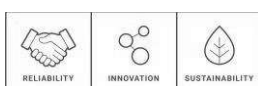


Boundary conditions

Colour ID	Name	Temperature [°C]	Surface resistance [m ² .K/W]
170	exterior	0	0.04
174	interior (normal), horizontal heat flow	20	0.13
191	adiabatic	0	∞
213	slightly ventilated cavity	0	0.3

Materials

Colour ID	Name	Thermal conductivity [W/(m.K)]	Emissivity [-]	EN ISO 10077-2:2018 Annex D
3	PVC rigid	0.17	0.9	x
13	Termopor EPS	0.03	0.9	
36	Brick	0.4	0.9	
60	EPDM	0.25	0.9	x
69	Plaster	0.8	0.9	
86	XPS	0.032	0.9	
253	cavity <1x1 mm2	0.028	0.9	
	unventilated cavities - radiosity method			



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Calculation result

Thermal transmittance of the shutter box, U_{sb}

1.3 W/(m².K)
(1.286)

Total heat flow rate, Φ

9.259 W/m

Temperature difference between environments

20 °C

Thermal conductance, L^{2D}

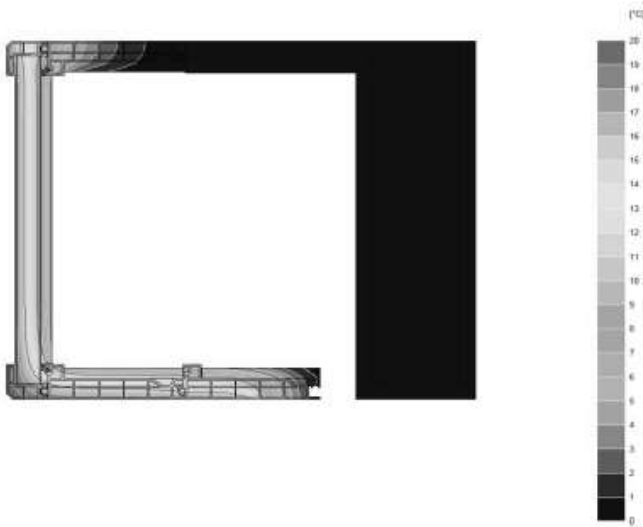
0.463 W/(m.K)

Height of the roller shutter box, b_{sb}

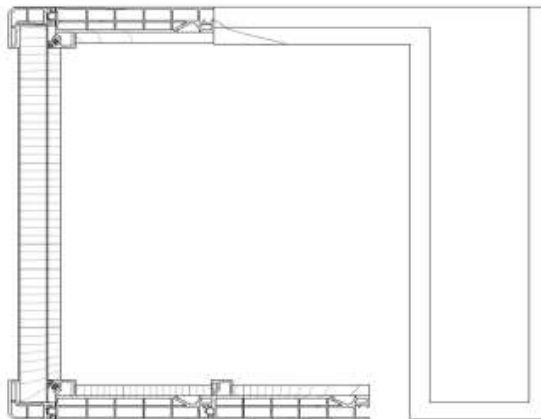
0.3601 m

Graphic output

Isothermal lines



Heat flow lines



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