3.1. PASSIVE - U=0.122 с външна мазилка

Exterior wall
created on 31.3.2021

Moisture proofing

For the calculation of the amount of condensation water, the component was exposed to the following constant climate for 90 days: inside: 20°C und 60% Humidity; outside: -20°C und 80% Humidity (Climate according to user input).

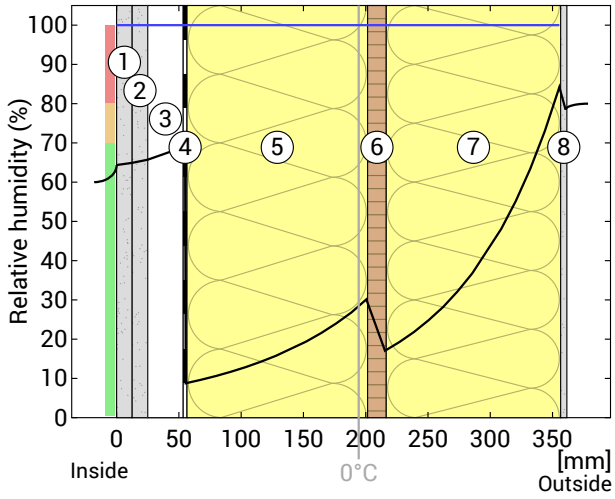
This component is free of condensate under the given climate conditions.

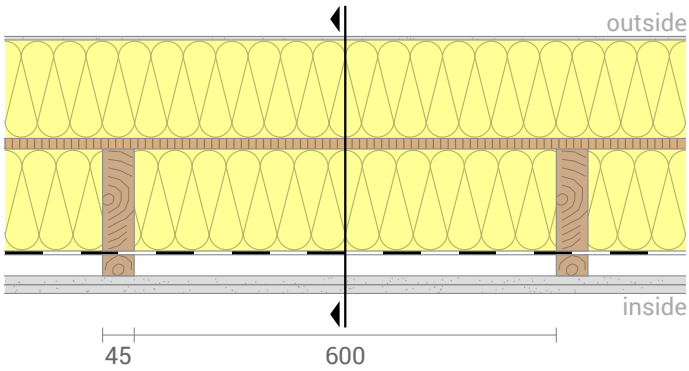
Drying reserve according to Ubakus 2D-FE method: 310 g/(m²a)
At least required by DIN 68800-2: 100 g/(m²a)

#		Material	sd-value [m]	Condensate [kg/m²]	Condensate [Gew.-%]	Weight [kg/m²]
1	1,25 cm	Gypsum Fibreboard	0,05	-		14,4
2	1,25 cm	Gypsum board	0,05	-		8,5
3	3 cm	Stationary air (unventilated)	0,01	-		0,0
	3 cm	Spruce (7,0%)	0,60	-	-	0,9
4	0,05 cm	Vapor barrier sd=35m	35,00	-		0,1
5	14,5 cm	mineral wool 035	0,15	-		2,7
	14,5 cm	Spruce (7,0%)	2,90	-	-	4,6
6	1,5 cm	OSB/3	2,25	-	-	9,3
7	14 cm	Stone wool façade insulation	0,14	-		14,0
8	0,5 cm	Cement plaster	0,18	-		10,0
	36,05 cm	Whole component	37,99			64,5

Humidity

The temperature of the inside surface is 18,5 °C leading to a relative humidity on the surface of 66%.Mould formation is not expected under these conditions.
The following figure shows the relative humidity inside the component.





① Gypsum Fibreboard (12,5 mm)
② Gypsum board (12,5 mm)
③ Stationary air (30 mm)
④ Vapor barrier sd=35m
⑤ mineral wool 035 (145 mm)
⑥ OSB/3 (15 mm)
⑦ Stone wool façade insulation (140 mm)
⑧ Cement plaster (5 mm)

Notes: Calculation using the Ubakus 2D-FE method. Convection and the capillarity of the building materials were not considered. The drying time may take longer under unfavorable conditions (shading, damp / cool summers) than calculated here.