

Documentation of the component
 Thermal transmittance (U-value) according to Digest 465
 Source: **PCC - TERRIX SYSTEMS**
 Component: **old station rd**

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This illustration of inhomogeneous layers is provided only to assist in visualising the arrangement.

Assignment: External wall

	Manufacturer	Name	Thickness [m], number	Lambda [W/(mK)]	Q	R [m ² K/W]
		Rse				0.0400
✓	1 PCC	TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm	0.0015	0.760	E	0.0020
✓	2 PCC	TERRIX AD-BW mineral wool base coat	0.0050	0.060	E	0.0833
✓	3 Rockwool	Frontrock Max E	0.2000	0.036	E	5.5556
✓	4 PCC	TERRIX AD-AF flexible adhesive for frame systems	0.0050	0.080	E	0.0625
✓	5 MGO	MGO	0.0120	0.307	E	0.0391
✓	6 Light steel-frame	consisting of:	0.1000	∅ 0.159		0.6293
	6a Rockwool Ltd	Steel Frame Slab 034	99.75 %	0.034	B	-
		Air gaps	Level 1: dU" = 0.01 W/(m ² K)			
	6b BS EN 12524	Steel	00.25 %	50.000	D	-
✓	7 DuPont UK Ltd	AirGuard Reflective E	0.0003	0.170	D	0.0018
✓	8 British Gypsum Limited	Gyproc FireLine	0.0125	0.240	D	0.0521
✓	9 British Gypsum Limited	Gyproc FireLine	0.0125	0.240	D	0.0521
		Rsi				0.1300
0.3488						

$$R_T = p \cdot R_T' + (1-p) \cdot R_T'' = 7.97 \text{ m}^2\text{K/W}$$

Correction to U-value for	according to	delta U [W/(m ² K)]
Air gaps	BS EN ISO 6946 Annex F	0.0004
<i>Air gaps and fixings corrections need not be applied, as their total effect is less than 3% (Annex D BS 6946:1996).</i>		
		0.0000

$$U = 1/R_T + \Sigma \Delta U = 0.13 \text{ W/(m}^2\text{K)}$$

- Q .. The physical values of the building materials has been graded by their level of quality. These 5 levels are the following
- .. A: Data is entered and validated by the manufacturer or supplier. Data is continuously tested by 3rd party.
 - .. B: Data is entered and validated by the manufacturer or supplier. Data is certified by 3rd party
 - .. C: Data is entered and validated by the manufacturer or supplier.
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 - .. E: Information is entered by the user of the BuildDesk software without special agreement with the manufacturer, supplier or others.

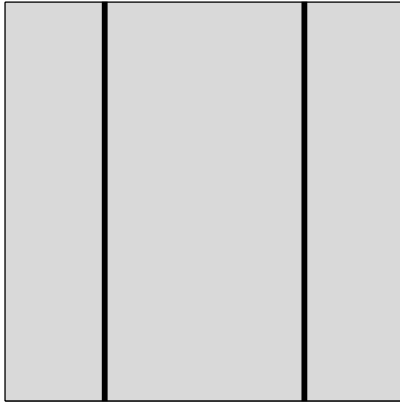
$$U = \boxed{0.13 \text{ W/(m}^2\text{K)}} \quad R_T = \boxed{7.97 \text{ m}^2\text{K/W}}$$



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Steel percentage: 0.25 %

Light steel-frame sections
 The portion is given in %.



A		consisting of material layers: 1, 2, 3, 4, 5, 6a, 7, 8, 9	= 99.75%
B		consisting of material layers: 1, 2, 3, 4, 5, 6b, 7, 8, 9	= 0.25%

Upper limit of the thermal transfer resistance R

$$U_A [W/(m^2K)] = \frac{1}{(\sum R_{i,A}) + R_{si} + R_{se}} = \frac{1}{8.79 + 0.13 + 0.04} = 0.11$$

$$U_B [W/(m^2K)] = \frac{1}{(\sum R_{i,B}) + R_{si} + R_{se}} = \frac{1}{5.85 + 0.13 + 0.04} = 0.17$$

$$R_T' = \frac{1}{A * U_A + B * U_B} = 8.95 \text{ m}^2\text{K/W}$$

Lower limit of the thermal transfer resistance R

$R_{se} [m^2K/W]$		= 0.04
$R_1'' [m^2K/W] = d_1 / \lambda_{1=}$	0.0015 / 0.760	= 0.00
$R_2'' [m^2K/W] = d_2 / \lambda_{2=}$	0.0050 / 0.060	= 0.08
$R_3'' [m^2K/W] = d_3 / \lambda_{3=}$	0.2000 / 0.036	= 5.56
$R_4'' [m^2K/W] = d_4 / \lambda_{4=}$	0.0050 / 0.080	= 0.06
$R_5'' [m^2K/W] = d_5 / \lambda_{5=}$	0.0120 / 0.307	= 0.04
$R_6'' [m^2K/W] = d_6 / (\lambda_{6a} * A + \lambda_{6b} * B) =$	0.1000 / (0.034 * 99.75% + 50.000 * 0.25%)	= 0.63
$R_7'' [m^2K/W] = d_7 / \lambda_{7=}$	0.0003 / 0.170	= 0.00
$R_8'' [m^2K/W] = d_8 / \lambda_{8=}$	0.0125 / 0.240	= 0.05
$R_9'' [m^2K/W] = d_9 / \lambda_{9=}$	0.0125 / 0.240	= 0.05
$R_{si} [m^2K/W]$		= 0.13

$$R_T'' = \sum R_i'' + R_{si} + R_{se} = 6.65 \text{ m}^2\text{K/W}$$



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Kind of frame:	Hybrid frame
Flange width:	known not to exceed 50 mm
Stud spacing s [m]:	0.400
Stud depth d [m]:	0.100
Web thickness t [m]:	0.00100
Steel percentage [%]:	0.25

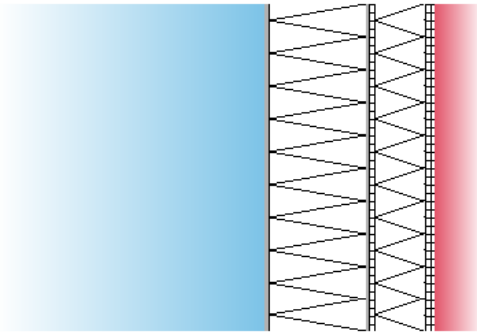
Weight factor p

Formula: $p = 0,8 * (R_T''/R_T') + 0,32 - 0,2 * (0,6/s) - 0,04 * (d/0,1) = 0.574$

$$R_T = p * R_T' + (1-p) * R_T'' = 7.97 \text{ m}^2\text{K/W}$$

OUTSIDE

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The list of material layers shown below may differ from those in the U-value calculation printout. Only material layers which are used in the Condensation Risk Analysis are listed.

This calculation of the Condensation risk analysis according to BS EN ISO 13788 has been performed on a construction containing inhomogeneous layers. This calculation is only valid through the selected section. It is advisable that you should also select the alternative position and recalculate the Condensation Risk Analysis for a more complete assessment of the construction. For further information the user is advised to follow the guidance in BS 5250:2021 Management of moisture in buildings


Assignment: External wall

Name	Thickn. [m]	lambda [W/(mK)]	Q	μ	Q	sd [m]	R [m²K/W]
TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm	0.0015	0.760	E	47.00	E	0.07	0.0020
TERRIX AD-BW mineral wool base coat	0.0050	0.060	E	10.00	E	0.05	0.0833
Frontrock Max E	0.2000	0.036	E	1.00	E	0.20	5.5556
TERRIX AD-AF flexible adhesive for frame systems	0.0050	0.080	E	10.00	E	0.05	0.0625
MGO	0.0120	0.307	E	3700.00	E	44.40	0.0391
Steel Frame Slab 034	0.1000	0.034	B	1.00	C	0.10	2.9412
AirGuard Reflective E	0.0003	0.170	D	4838710.00	D	1500.00	0.0018
Gyproc FireLine	0.0125	0.240	D	10.00	D	0.13	0.0521
Gyproc FireLine	0.0125	0.240	D	10.00	D	0.13	0.0521

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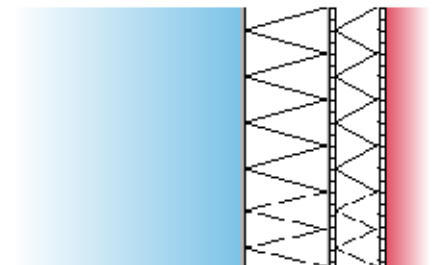
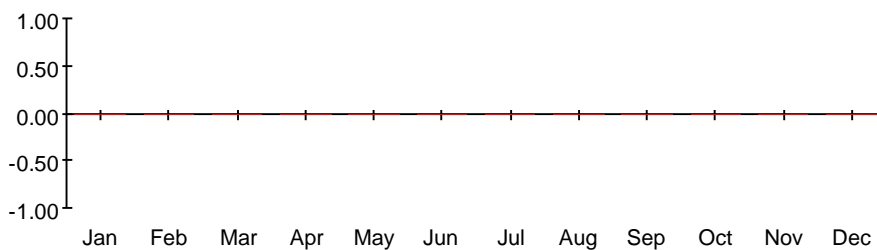
Documentation of the component
Calculation according BS EN ISO 13788
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Condensation risk analysis - summary of main results Calculation according BS EN ISO 13788

 **Surface temperature to avoid critical surface moisture:
No danger of mould growth is expected.**

 **Interstitial condensation:
No condensation is predicted at any interface in any month.**

Interstitial condensation and
evaporation per month g_c [g/m^2]



Component, condensation range

Condensation Risk Analysis calculations according to BS EN ISO 13788 are used as a guide in predicting interstitial condensation. This methodology uses some simplifications of the dynamic processes involved and subsequently does have some limitations. For further information the user is advised to follow the prescriptive guidance in BS 5250:2021 Management of moisture in buildings – Code of practice & BRE Information Paper:IP2/O5 (Feb. 2005) 'Modelling and controlling interstitial condensation'

Documentation of the component
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Surface temperature to avoid critical surface humidity Calculation according BS EN ISO 13788

Location: Cardiff, Wales; Humidity class according BS EN ISO 13788 annex A: 3 Buildings with unknown occupancy; Return period according BS 5250:2021 Once in 10 years (-1°C Ext Temp, +4% Ext RH)

	1	2	3	4	5	6	7	8	9	10	11	12
Month	Te [°C]	phi_e ---	Ti [°C]	phi_i ---	pe [Pa]	delta p [Pa]	pi [Pa]	ps(Tsi) [Pa]	Tsi,min [°C]	fRsi ---	Tsi [°C]	Tse [°C]
January	3.8	0.910	20.0	0.601	748	656	1404	1756	15.5	0.701	19.6	4.9
February	3.4	0.880	20.0	0.588	702	673	1375	1719	15.1	0.688	19.6	4.5
March	5.2	0.860	20.0	0.593	777	609	1386	1732	15.3	0.656	19.6	6.3
April	6.9	0.800	20.0	0.582	809	551	1361	1701	15.0	0.584	19.7	8.0
May	10.2	0.800	20.0	0.617	1010	433	1443	1804	15.9	0.532	19.8	11.2
June	12.9	0.820	20.0	0.672	1238	333	1572	1964	17.2	0.545	19.8	13.9
July	15.1	0.820	20.0	0.719	1427	254	1681	2101	18.3	0.562	19.9	16.1
August	15.0	0.820	20.0	0.717	1417	258	1675	2094	18.2	0.559	19.9	16.0
September	12.8	0.850	20.0	0.690	1277	334	1611	2014	17.6	0.616	19.8	13.8
October	9.7	0.890	20.0	0.657	1093	443	1536	1920	16.9	0.663	19.7	10.7
November	6.6	0.890	20.0	0.617	887	556	1443	1803	15.9	0.668	19.7	7.7
December	5.0	0.910	20.0	0.610	813	613	1426	1782	15.7	0.693	19.6	6.1

- The critical month is January with $f_{Rsi,max} = 0.701$
 $f_{Rsi} = 0.972$

$f_{Rsi} > f_{Rsi,max}$, the component complies.

Nr Explanation

- External temperature
- External rel. humidity
- Internal temperature
- Internal relative humidity
- External partial pressure $p_e = \phi_e * p_{sat}(T_e)$; $p_{sat}(T_e)$ according formula E.7 and E.8 of BS EN ISO 13788
- Partial pressure difference. The security factor of 1.10 according to BS EN ISO 13788, ch.4.2.4 is already included.
- Internal partial pressure $p_i = \phi_i * p_{sat}(T_i)$; $p_{sat}(T_i)$ according formula E.7 and E.8 of BS EN ISO 13788
- Minimum saturation pressure on the surface obtained by $p_{sat}(T_{si}) = p_i / \phi_{si}$,
 where $\phi_{si} = 0.8$ (critical surface humidity)
- Minimum surface temperature as function of $p_{sat}(T_{si})$, formula E.9 and E.10 of BS EN ISO 13788
- Design temperature factor according 3.1.2 of BS EN ISO 13788
- Internal surface temperature, obtained from $T_{si} = T_i - R_{si} * U * (T_i - T_e)$
- External surface temperature, obtained from $T_{se} = T_e + R_{se} * U * (T_i - T_e)$

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Interstitial condensation - main results Calculation according BS EN ISO 13788

No condensation is predicted at any interface in any month.

Climatic conditions

Location: Cardiff, Wales; Humidity class according BS EN ISO 13788 annex A: 3 Buildings with unknown occupancy; Return period according BS 5250:2021 Once in 10 years (-1°C Ext Temp, +4% Ext RH)

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Internal temperature [°C]	Ti	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Internal rel. humidity [%]	phi_i	60.1	58.8	59.3	58.2	61.7	67.2	71.9	71.7	69.0	65.7	61.7	61.0
External temperature [°C]	Te	3.8	3.4	5.2	6.9	10.2	12.9	15.1	15.0	12.8	9.7	6.6	5.0
External rel. humidity [%]	phi_e	91.0	88.0	86.0	80.0	80.0	82.0	82.0	82.0	85.0	89.0	89.0	91.0

Vapour pressure distribution

Calculation according BS EN ISO 13788

1. Month of balance: January Ti [°C] 20.0 phi_i [-] 0.601 Te [°C] 3.8 phi_e [-] 0.910

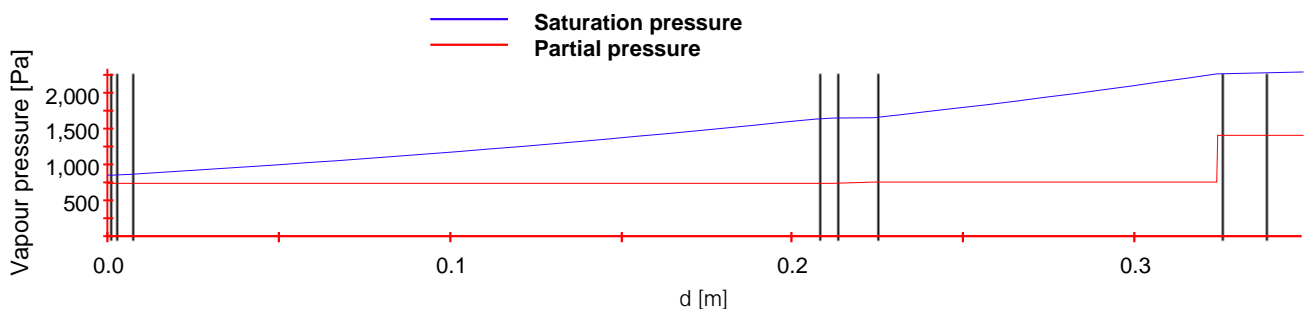
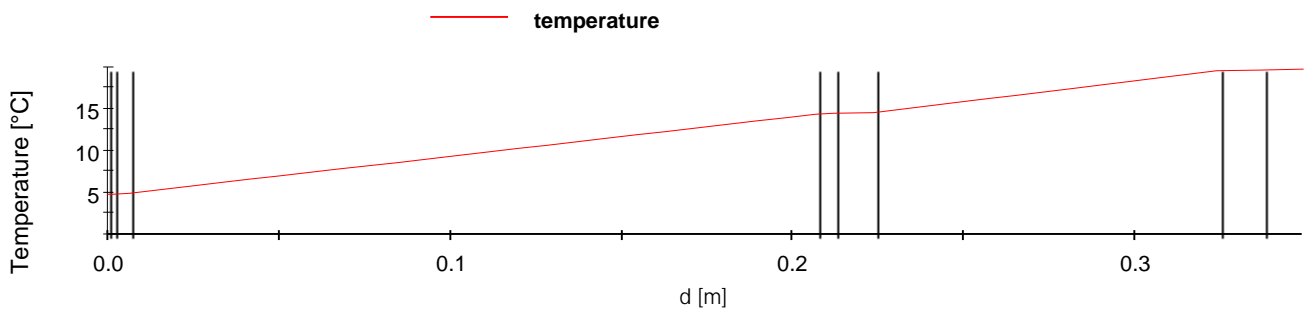
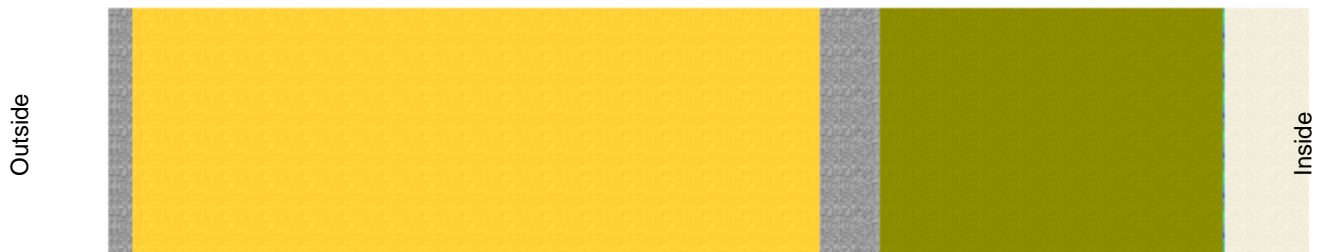


Table of month January:

Name	T[°C]	d[m]	psat[Pa]	p[Pa]
External / TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm	4.9	0.349	864	748
TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm / TERRIX AD-BW mineral wool base coat	4.9	0.347	864	748
TERRIX AD-BW mineral wool base coat / Frontrock Max E	5.0	0.342	872	748
Frontrock Max E / TERRIX AD-AF flexible adhesive for frame systems	14.3	0.142	1630	748
TERRIX AD-AF flexible adhesive for frame systems / MGO	14.4	0.137	1641	748
MGO / Steel Frame Slab 034	14.5	0.125	1648	767
Steel Frame Slab 034 / AirGuard Reflective E	19.4	0.025	2252	767
AirGuard Reflective E / Gyproc FireLine	19.4	0.025	2253	1404



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Name	T[°C]	d[m]	psat[Pa]	p[Pa]
Gyproc FireLine / Gyproc FireLine	19.5	0.013	2265	1404
Gyproc FireLine / Internal	19.6	0.000	2277	1404

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Vapour pressure distribution Calculation according BS EN ISO 13788

2. Month of balance: February Ti [°C] 20.0 phi_i [-] 0.588 Te [°C] 3.4 phi_e [-] 0.880

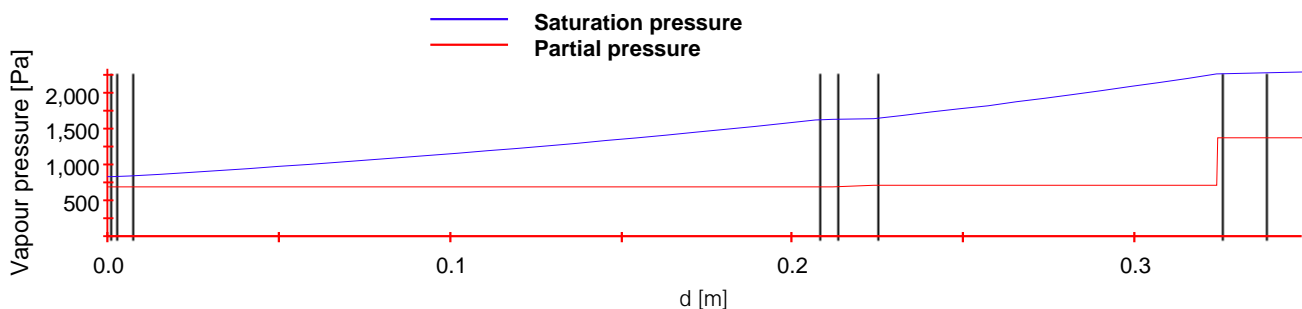
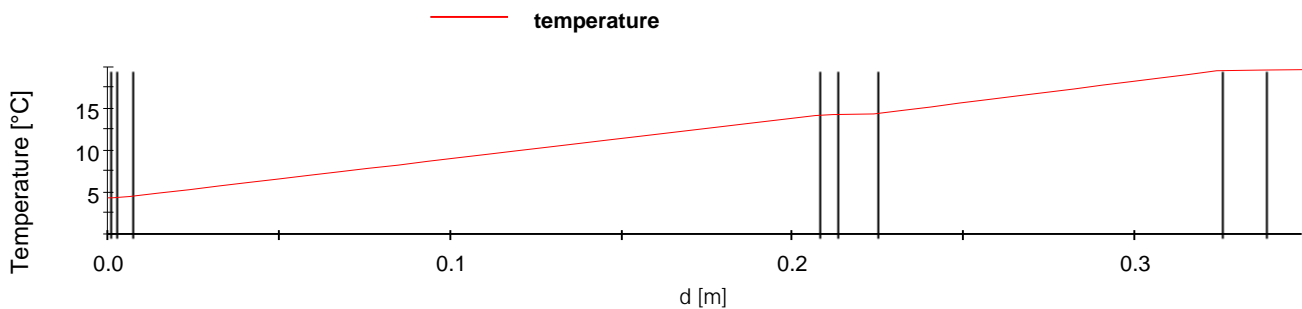
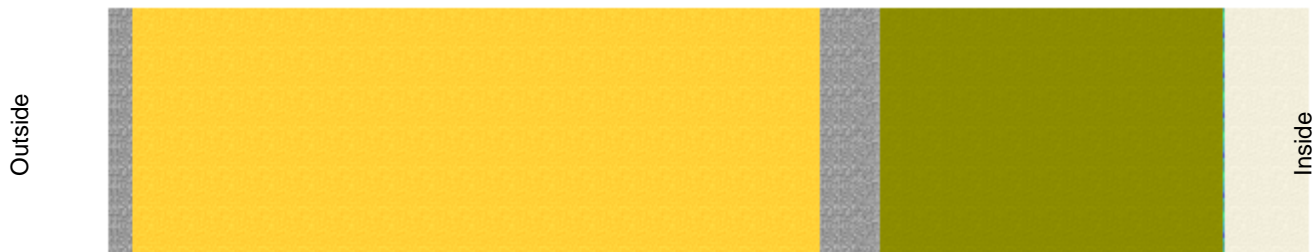


Table of month February:

Name	T[°C]	d[m]	psat[Pa]	p[Pa]
External / TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm	4.5	0.349	840	702
TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm / TERRIX AD-BW mineral wool base coat	4.5	0.347	840	702
TERRIX AD-BW mineral wool base coat / Frontrock Max E	4.6	0.342	849	702
Frontrock Max E / TERRIX AD-AF flexible adhesive for frame systems	14.2	0.142	1614	702
TERRIX AD-AF flexible adhesive for frame systems / MGO	14.3	0.137	1626	702
MGO / Steel Frame Slab 034	14.3	0.125	1633	722
Steel Frame Slab 034 / AirGuard Reflective E	19.4	0.025	2250	722
AirGuard Reflective E / Gyproc FireLine	19.4	0.025	2250	1375



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Name	T[°C]	d[m]	psat[Pa]	p[Pa]
Gyproc FireLine / Gyproc FireLine	19.5	0.013	2263	1375
Gyproc FireLine / Internal	19.6	0.000	2276	1375

Vapour pressure distribution

Calculation according BS EN ISO 13788

3. Month of balance: March Ti [°C] 20.0 phi_i [-] 0.593 Te [°C] 5.2 phi_e [-] 0.860

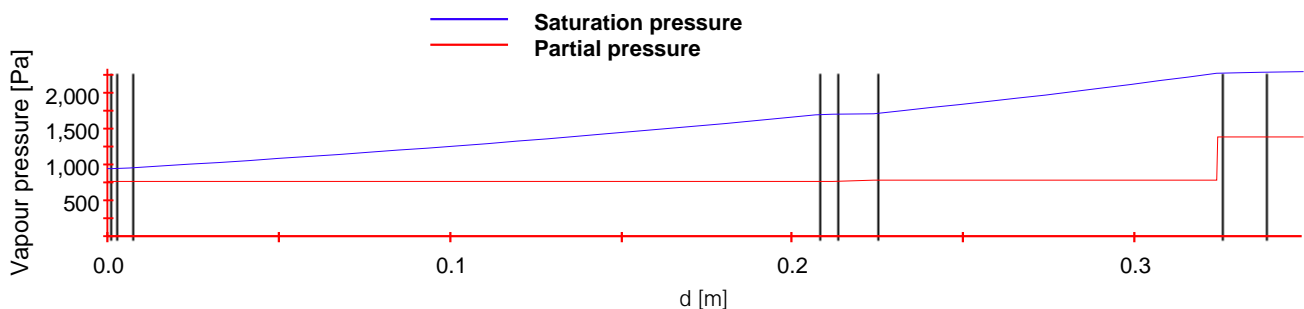
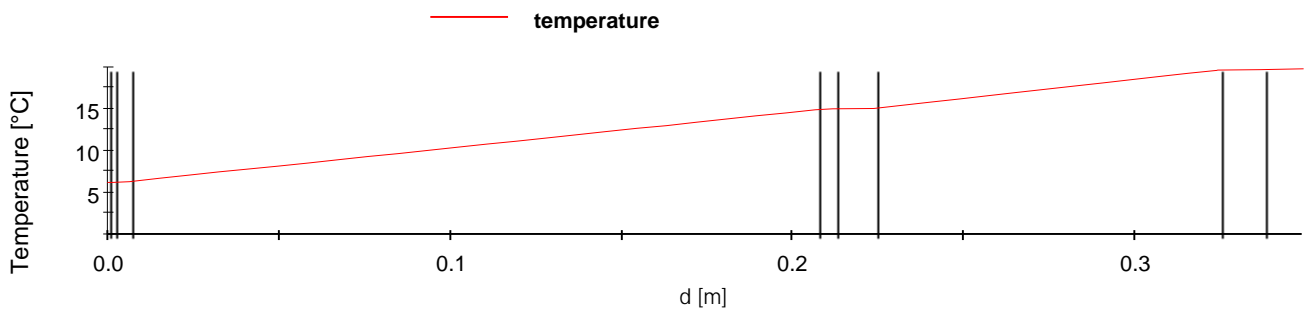
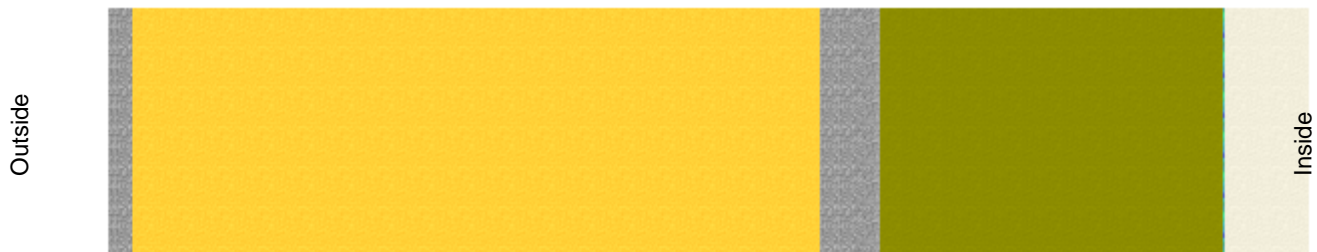


Table of month March:

Name	T[°C]	d[m]	psat[Pa]	p[Pa]
External / TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm	6.3	0.349	952	777
TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm / TERRIX AD-BW mineral wool base coat	6.3	0.347	952	777
TERRIX AD-BW mineral wool base coat / Frontrock Max E	6.4	0.342	960	777
Frontrock Max E / TERRIX AD-AF flexible adhesive for frame systems	14.8	0.142	1686	777
TERRIX AD-AF flexible adhesive for frame systems / MGO	14.9	0.137	1697	777
MGO / Steel Frame Slab 034	15.0	0.125	1703	795
Steel Frame Slab 034 / AirGuard Reflective E	19.5	0.025	2260	795
AirGuard Reflective E / Gyproc FireLine	19.5	0.025	2260	1386



TERRIX[®]

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PCC Morava Chem s.r.o.
Leose Janáčka 798/20, CZ-737 01 Český Tesín
Old Station Rd.

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Name	T[°C]	d[m]	psat[Pa]	p[Pa]
Gyproc FireLine / Gyproc FireLine	19.5	0.013	2271	1386
Gyproc FireLine / Internal	19.6	0.000	2283	1386

Vapour pressure distribution

Calculation according BS EN ISO 13788

4. Month of balance: April Ti [°C] 20.0 phi_i [-] 0.582 Te [°C] 6.9 phi_e [-] 0.800

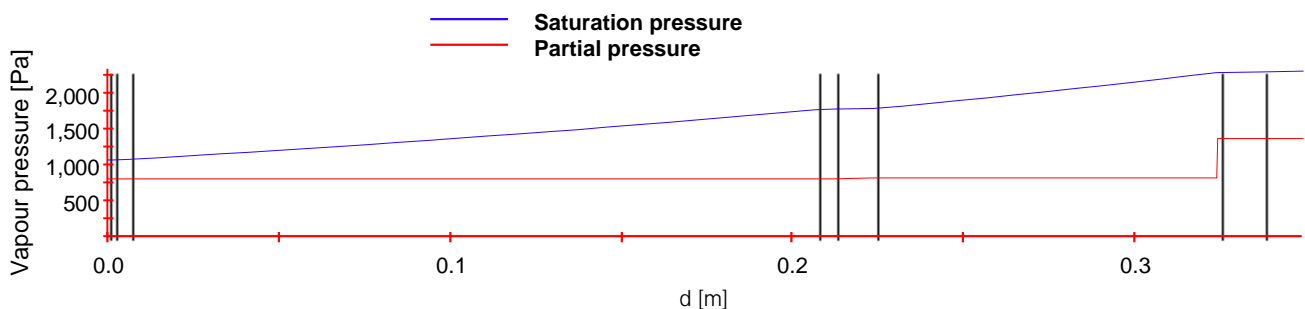
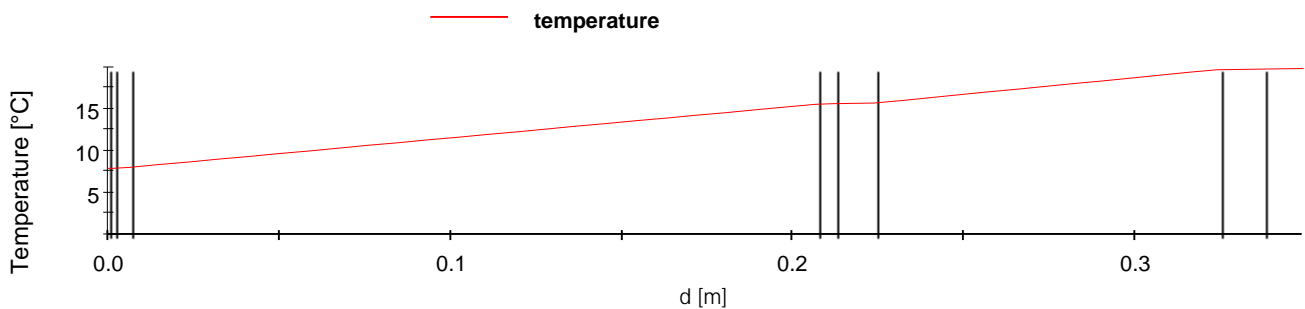
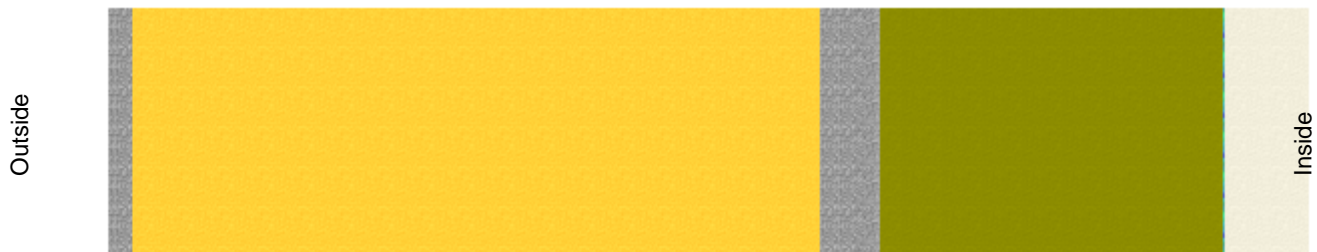


Table of month April:

Name	T[°C]	d[m]	psat[Pa]	p[Pa]
External / TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm	8.0	0.349	1069	809
TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm / TERRIX AD-BW mineral wool base coat	8.0	0.347	1069	809
TERRIX AD-BW mineral wool base coat / Frontrock Max E	8.1	0.342	1077	809
Frontrock Max E / TERRIX AD-AF flexible adhesive for frame systems	15.5	0.142	1757	809
TERRIX AD-AF flexible adhesive for frame systems / MGO	15.6	0.137	1766	809
MGO / Steel Frame Slab 034	15.6	0.125	1772	825
Steel Frame Slab 034 / AirGuard Reflective E	19.5	0.025	2269	825
AirGuard Reflective E / Gyproc FireLine	19.5	0.025	2270	1361



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Name	T[°C]	d[m]	psat[Pa]	p[Pa]
Gyproc FireLine / Gyproc FireLine	19.6	0.013	2279	1361
Gyproc FireLine / Internal	19.7	0.000	2289	1361

Vapour pressure distribution

Calculation according BS EN ISO 13788

5. Month of balance: May Ti [°C] 20.0 phi_i [-] 0.617 Te [°C] 10.2 phi_e [-] 0.800

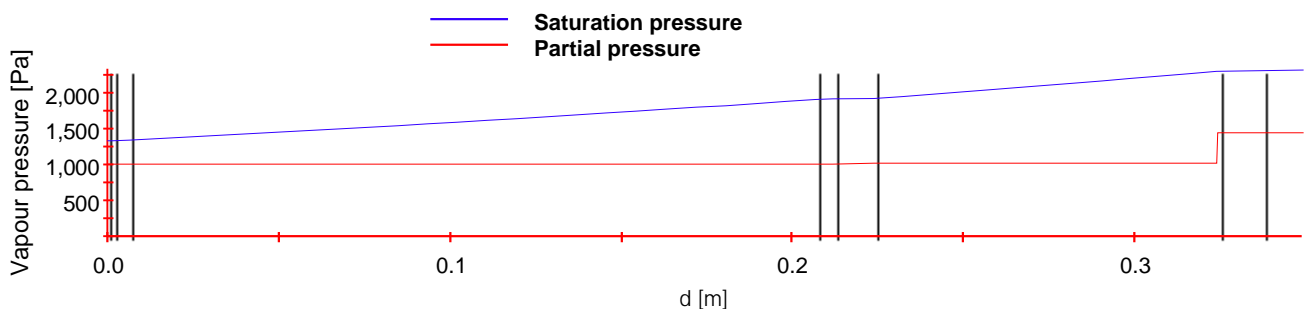
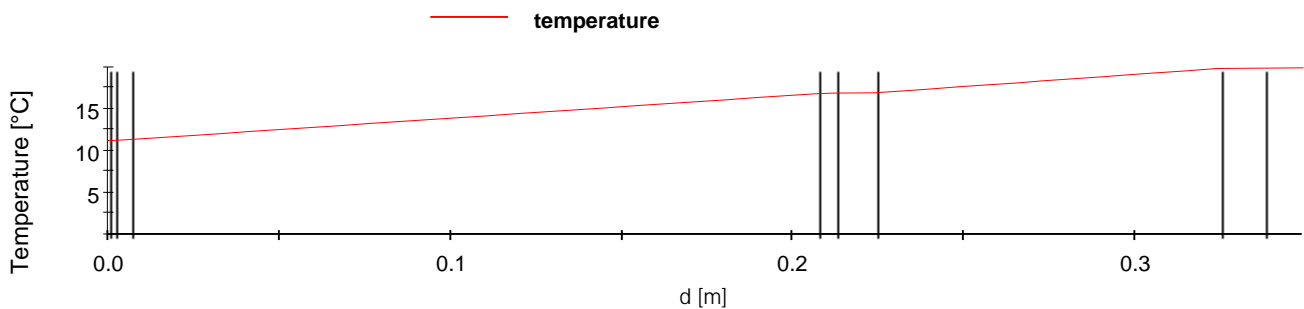
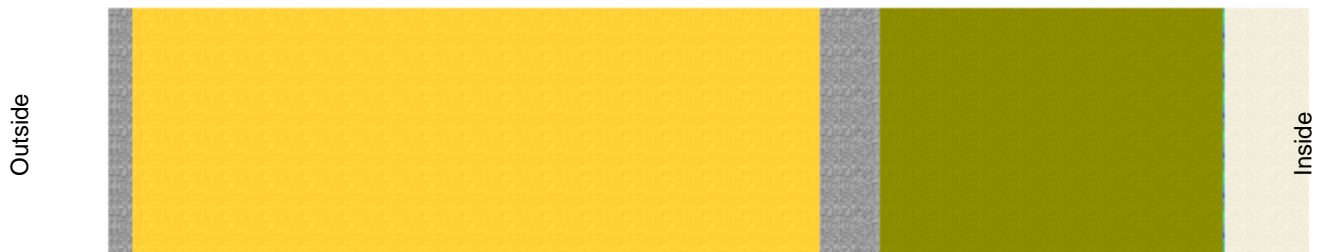


Table of month May:

Name	T[°C]	d[m]	psat[Pa]	p[Pa]
External / TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm	11.2	0.349	1333	1010
TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm / TERRIX AD-BW mineral wool base coat	11.2	0.347	1333	1010
TERRIX AD-BW mineral wool base coat / Frontrock Max E	11.3	0.342	1340	1010
Frontrock Max E / TERRIX AD-AF flexible adhesive for frame systems	16.7	0.142	1901	1011
TERRIX AD-AF flexible adhesive for frame systems / MGO	16.8	0.137	1908	1011
MGO / Steel Frame Slab 034	16.8	0.125	1913	1023
Steel Frame Slab 034 / AirGuard Reflective E	19.7	0.025	2288	1023
AirGuard Reflective E / Gyproc FireLine	19.7	0.025	2288	1443



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Name	T[°C]	d[m]	psat[Pa]	p[Pa]
Gyproc FireLine / Gyproc FireLine	19.7	0.013	2295	1443
Gyproc FireLine / Internal	19.8	0.000	2302	1443

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6. Month of balance: June
 T_i [°C] 20.0 $\phi_{i,i}$ [-] 0.672 T_e [°C] 12.9 $\phi_{i,e}$ [-] 0.820

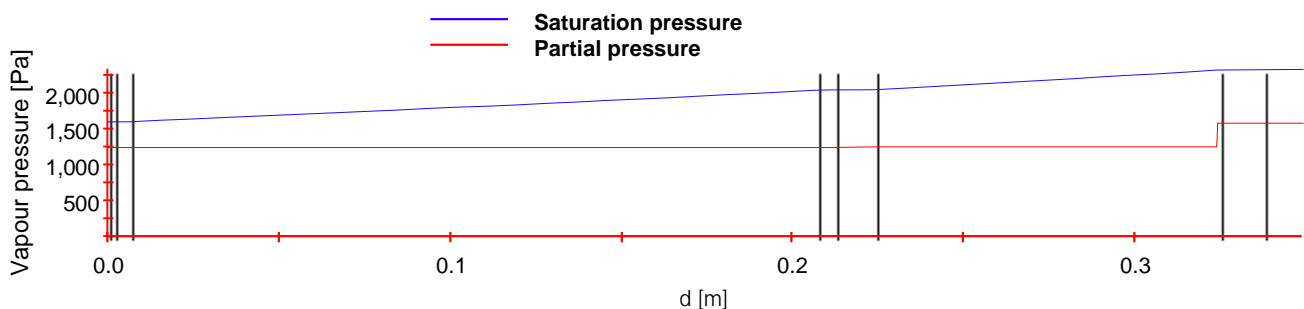
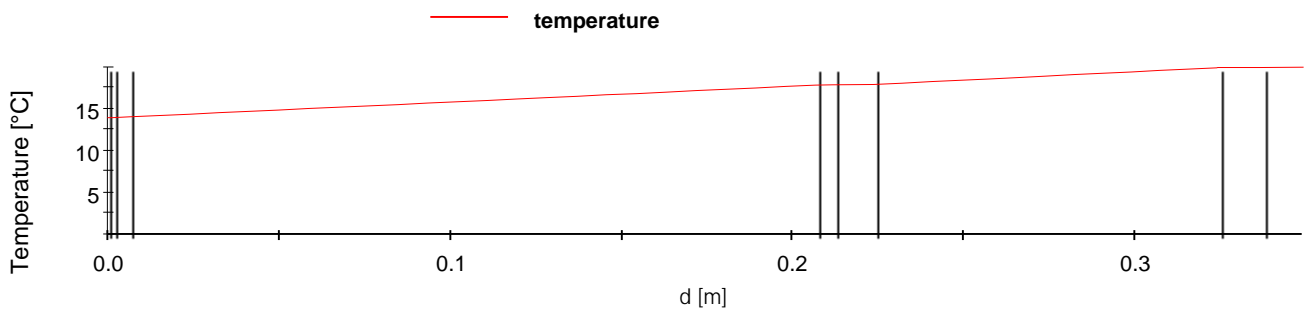
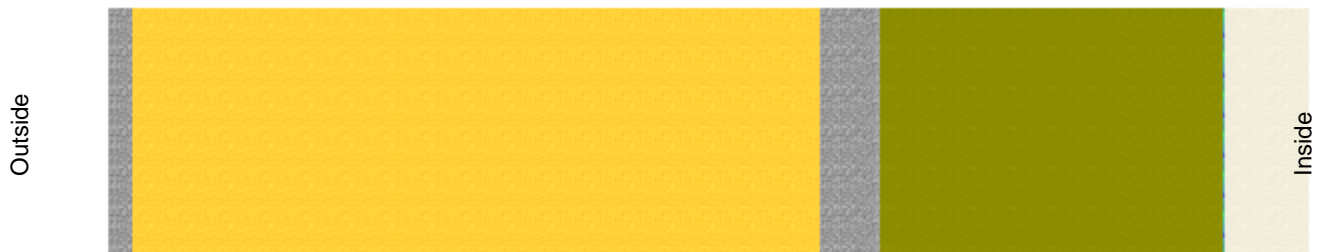


Table of month June:

Name	T[°C]	d[m]	psat[Pa]	p[Pa]
External / TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm	13.9	0.349	1590	1238
TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm / TERRIX AD-BW mineral wool base coat	13.9	0.347	1590	1238
TERRIX AD-BW mineral wool base coat / Frontrock Max E	14.0	0.342	1596	1238
Frontrock Max E / TERRIX AD-AF flexible adhesive for frame systems	17.7	0.142	2026	1238
TERRIX AD-AF flexible adhesive for frame systems / MGO	17.8	0.137	2032	1238
MGO / Steel Frame Slab 034	17.8	0.125	2035	1248
Steel Frame Slab 034 / AirGuard Reflective E	19.8	0.025	2303	1248
AirGuard Reflective E / Gyproc FireLine	19.8	0.025	2303	1571



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Name	T[°C]	d[m]	psat[Pa]	p[Pa]
Gyproc FireLine / Gyproc FireLine	19.8	0.013	2308	1572
Gyproc FireLine / Internal	19.8	0.000	2313	1572

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7. Month of balance: July

T_i [°C]	$\phi_{i,j}$ [-]	T_e [°C]	$\phi_{i,e}$ [-]
20.0	0.719	15.1	0.820

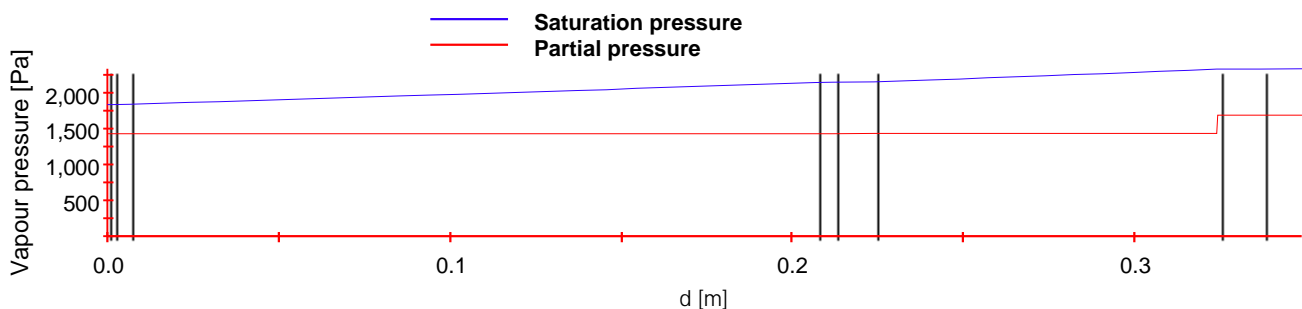
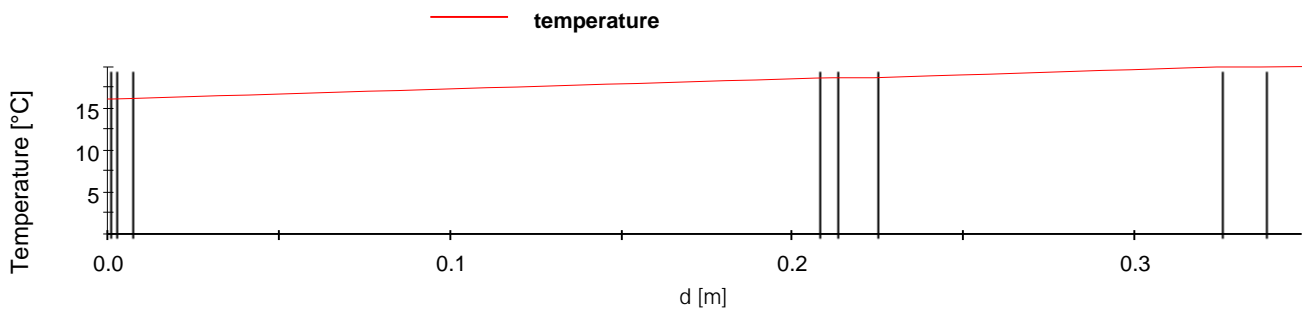
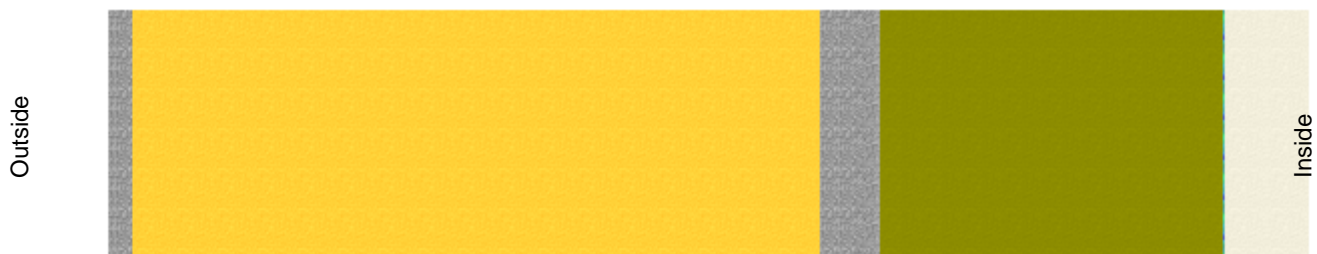


Table of month July:

Name	T[°C]	d[m]	psat[Pa]	p[Pa]
External / TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm	16.1	0.349	1831	1427
TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm / TERRIX AD-BW mineral wool base coat	16.1	0.347	1831	1427
TERRIX AD-BW mineral wool base coat / Frontrock Max E	16.2	0.342	1835	1427
Frontrock Max E / TERRIX AD-AF flexible adhesive for frame systems	18.5	0.142	2134	1427
TERRIX AD-AF flexible adhesive for frame systems / MGO	18.6	0.137	2138	1427
MGO / Steel Frame Slab 034	18.6	0.125	2140	1434
Steel Frame Slab 034 / AirGuard Reflective E	19.8	0.025	2315	1434
AirGuard Reflective E / Gyproc FireLine	19.8	0.025	2315	1681



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Name	T[°C]	d[m]	psat[Pa]	p[Pa]
Gyproc FireLine / Gyproc FireLine	19.9	0.013	2318	1681
Gyproc FireLine / Internal	19.9	0.000	2321	1681

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8. Month of balance: August

	T_i [°C]	$\phi_{i,i}$ [-]	T_e [°C]	$\phi_{i,e}$ [-]
	20.0	0.717	15.0	0.820

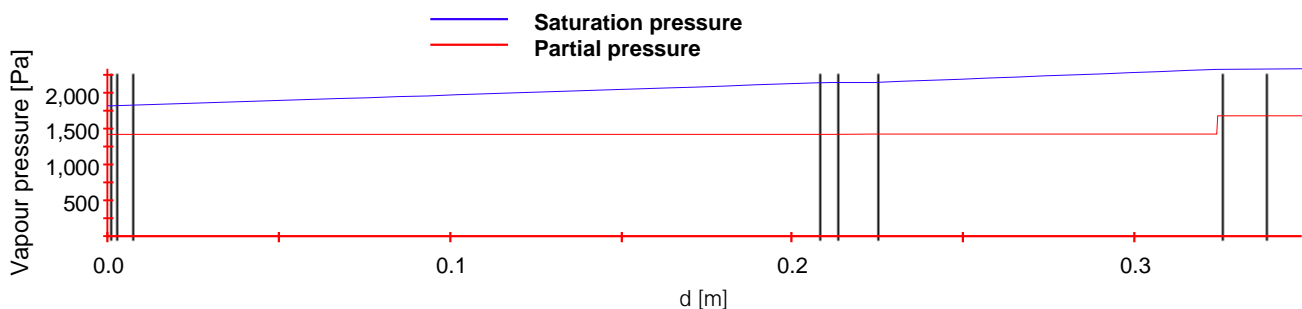
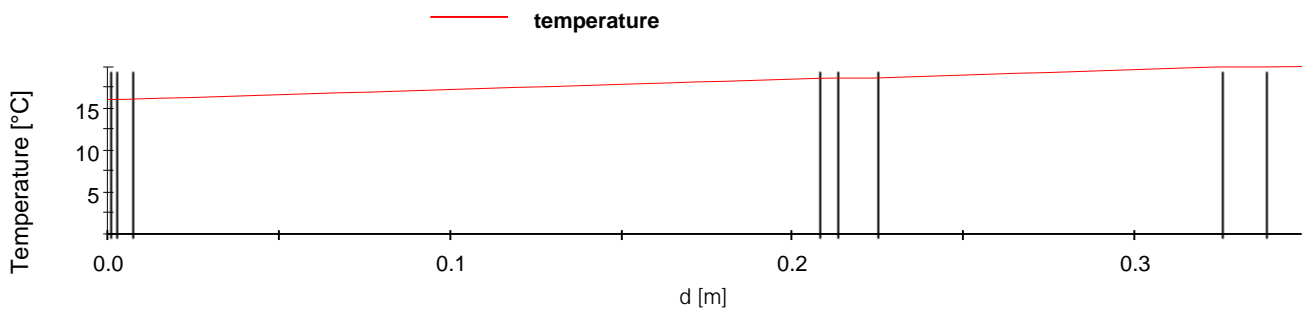
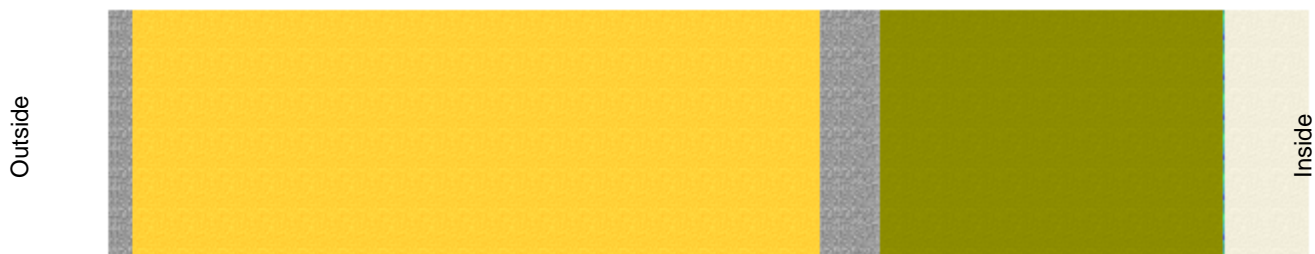


Table of month August:

Name	T[°C]	d[m]	psat[Pa]	p[Pa]
External / TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm	16.0	0.349	1819	1417
TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm / TERRIX AD-BW mineral wool base coat	16.0	0.347	1819	1417
TERRIX AD-BW mineral wool base coat / Frontrock Max E	16.1	0.342	1824	1417
Frontrock Max E / TERRIX AD-AF flexible adhesive for frame systems	18.5	0.142	2129	1418
TERRIX AD-AF flexible adhesive for frame systems / MGO	18.5	0.137	2133	1418
MGO / Steel Frame Slab 034	18.5	0.125	2135	1425
Steel Frame Slab 034 / AirGuard Reflective E	19.8	0.025	2314	1425
AirGuard Reflective E / Gyproc FireLine	19.8	0.025	2314	1675



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Name	T[°C]	d[m]	psat[Pa]	p[Pa]
Gyproc FireLine / Gyproc FireLine	19.9	0.013	2318	1675
Gyproc FireLine / Internal	19.9	0.000	2321	1675

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9. Month of balance: **September** T_i [°C] 20.0 $\phi_{i,e}$ [-] 0.690 T_e [°C] 12.8 $\phi_{i,e}$ [-] 0.850

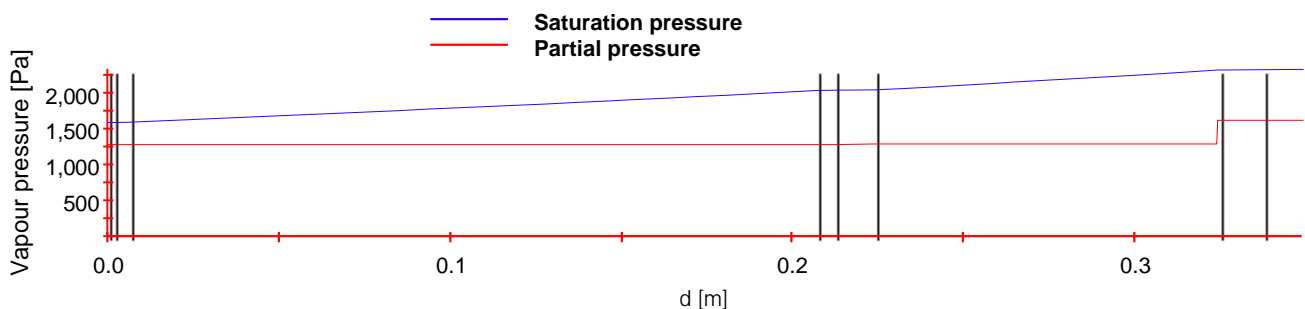
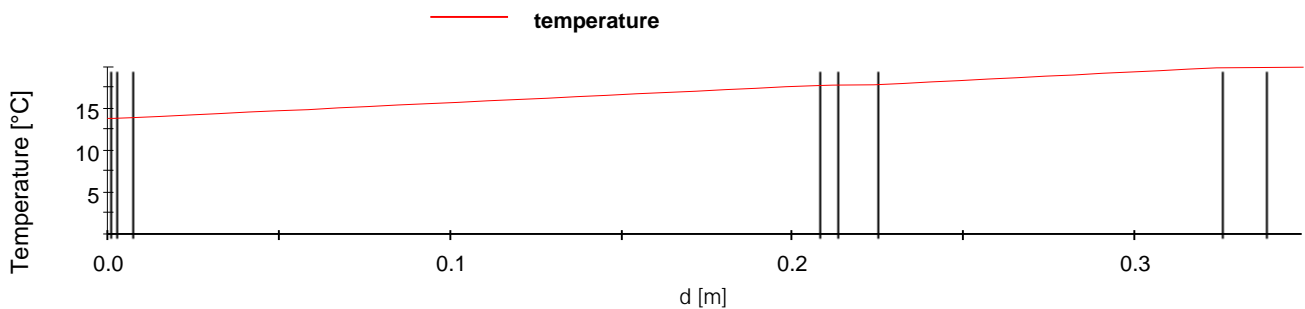
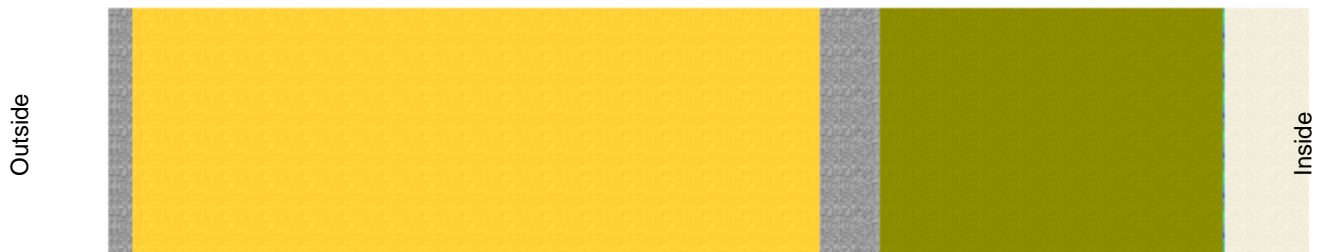


Table of month September:

Name	T[°C]	d[m]	psat[Pa]	p[Pa]
External / TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm	13.8	0.349	1580	1277
TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm / TERRIX AD-BW mineral wool base coat	13.8	0.347	1580	1277
TERRIX AD-BW mineral wool base coat / Frontrock Max E	13.9	0.342	1586	1277
Frontrock Max E / TERRIX AD-AF flexible adhesive for frame systems	17.7	0.142	2022	1278
TERRIX AD-AF flexible adhesive for frame systems / MGO	17.7	0.137	2027	1278
MGO / Steel Frame Slab 034	17.7	0.125	2030	1287
Steel Frame Slab 034 / AirGuard Reflective E	19.8	0.025	2302	1287
AirGuard Reflective E / Gyproc FireLine	19.8	0.025	2302	1611



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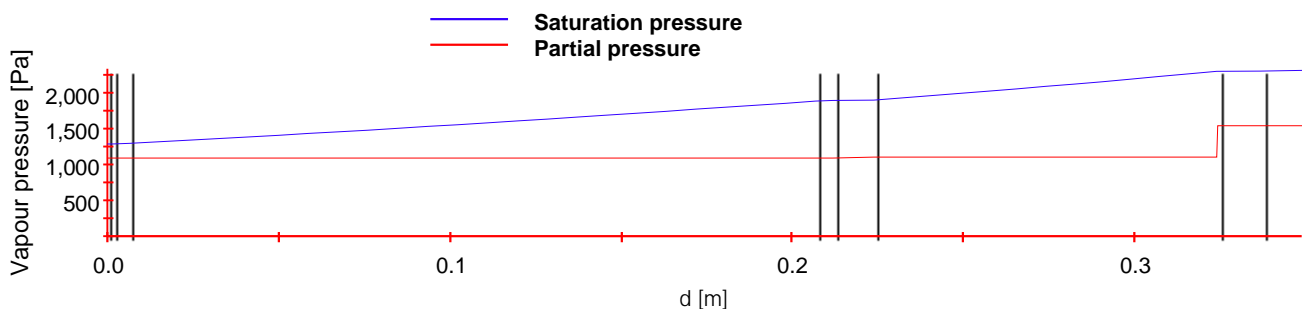
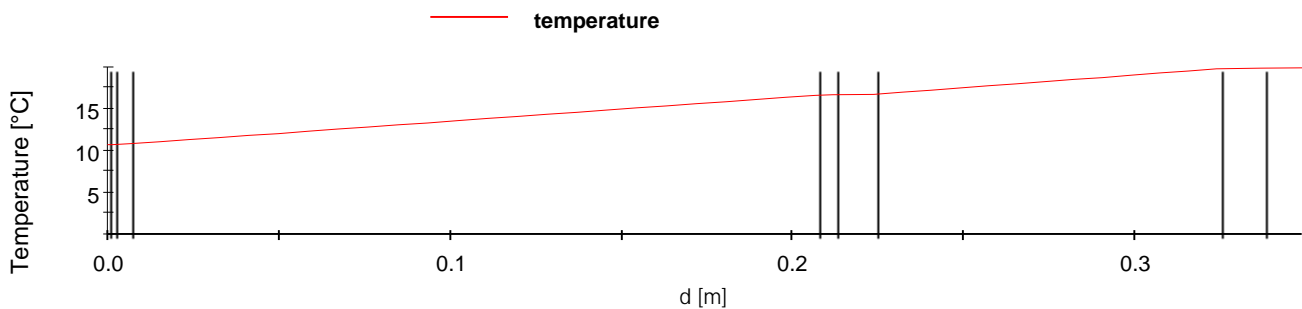
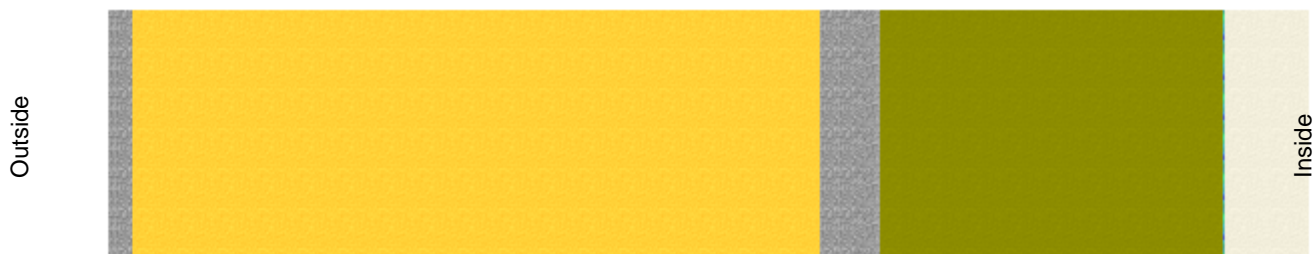
Name	T[°C]	d[m]	psat[Pa]	p[Pa]
Gyproc FireLine / Gyproc FireLine	19.8	0.013	2307	1611
Gyproc FireLine / Internal	19.8	0.000	2312	1611

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 10. Month of balance: October
 T_i [°C] 20.0 $\phi_{i,i}$ [-] 0.657 T_e [°C] 9.7 $\phi_{i,e}$ [-] 0.890


Table of month October:

Name	T[°C]	d[m]	psat[Pa]	p[Pa]
External / TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm	10.7	0.349	1290	1093
TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm / TERRIX AD-BW mineral wool base coat	10.7	0.347	1290	1093
TERRIX AD-BW mineral wool base coat / Frontrock Max E	10.8	0.342	1297	1093
Frontrock Max E / TERRIX AD-AF flexible adhesive for frame systems	16.5	0.142	1878	1093
TERRIX AD-AF flexible adhesive for frame systems / MGO	16.6	0.137	1886	1093
MGO / Steel Frame Slab 034	16.6	0.125	1891	1106
Steel Frame Slab 034 / AirGuard Reflective E	19.6	0.025	2285	1106
AirGuard Reflective E / Gyproc FireLine	19.6	0.025	2285	1536



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Name	T[°C]	d[m]	psat[Pa]	p[Pa]
Gyproc FireLine / Gyproc FireLine	19.7	0.013	2293	1536
Gyproc FireLine / Internal	19.7	0.000	2300	1536

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11. Month of balance: November Ti [°C] 20.0 phi_i [-] 0.617 Te [°C] 6.6 phi_e [-] 0.890

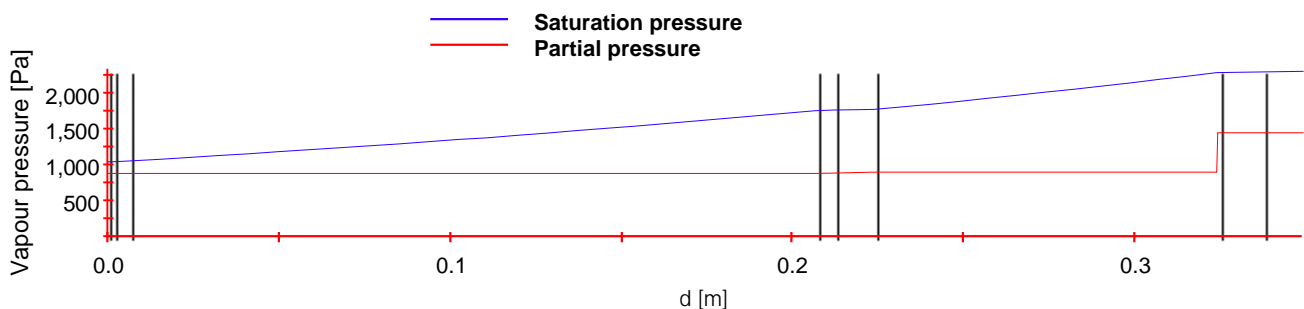
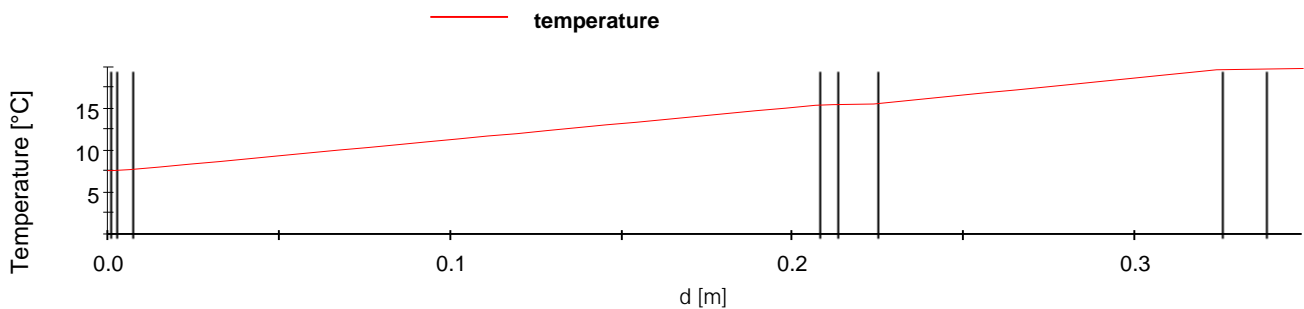
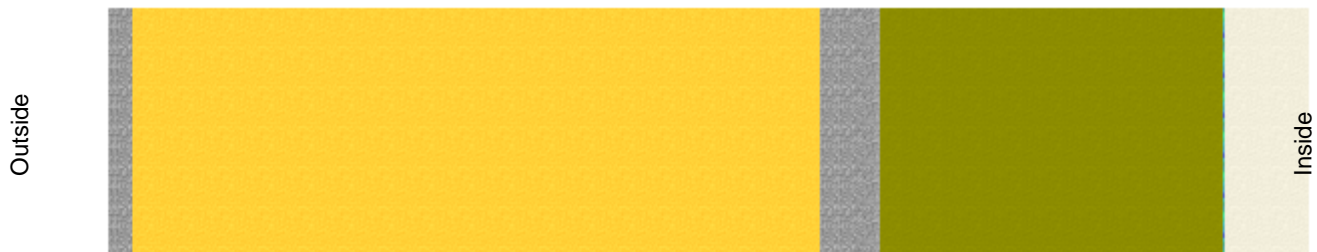


Table of month November:

Name	T[°C]	d[m]	psat[Pa]	p[Pa]
External / TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm	7.7	0.349	1047	887
TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm / TERRIX AD-BW mineral wool base coat	7.7	0.347	1047	887
TERRIX AD-BW mineral wool base coat / Frontrock Max E	7.8	0.342	1056	887
Frontrock Max E / TERRIX AD-AF flexible adhesive for frame systems	15.4	0.142	1744	887
TERRIX AD-AF flexible adhesive for frame systems / MGO	15.4	0.137	1754	887
MGO / Steel Frame Slab 034	15.5	0.125	1760	903
Steel Frame Slab 034 / AirGuard Reflective E	19.5	0.025	2268	903
AirGuard Reflective E / Gyproc FireLine	19.5	0.025	2268	1443



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Name	T[°C]	d[m]	psat[Pa]	p[Pa]
Gyproc FireLine / Gyproc FireLine	19.6	0.013	2278	1443
Gyproc FireLine / Internal	19.7	0.000	2288	1443

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12. Month of balance: December Ti [°C] 20.0 phi_i [-] 0.610 Te [°C] 5.0 phi_e [-] 0.910

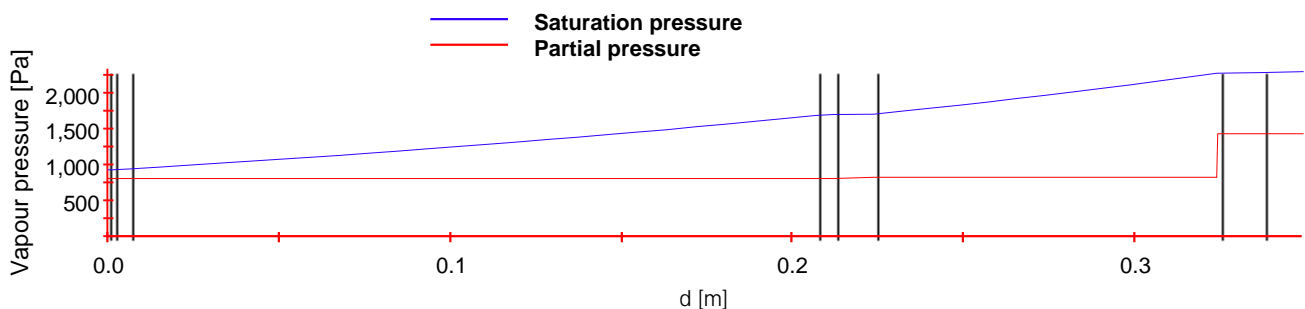
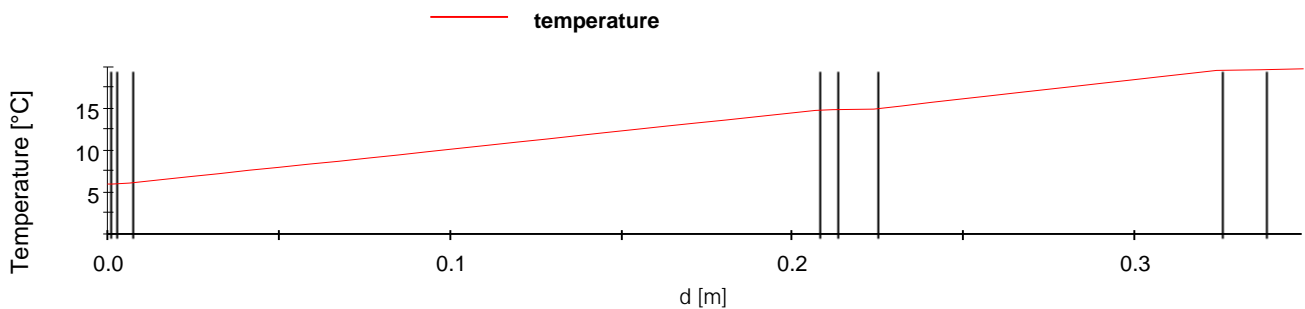
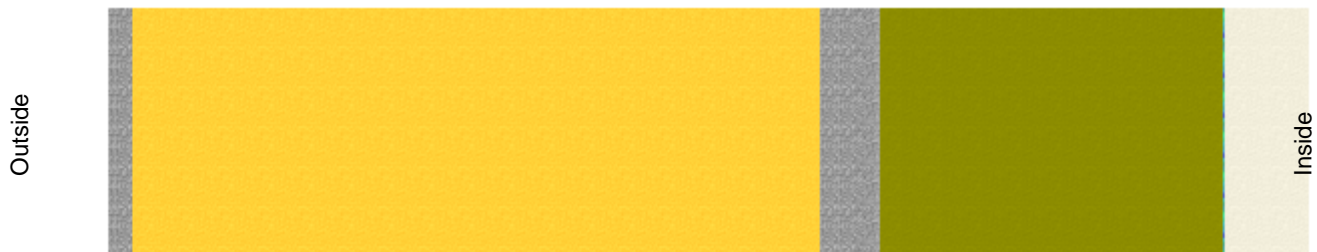


Table of month December:

Name	T[°C]	d[m]	psat[Pa]	p[Pa]
External / TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm	6.1	0.349	939	813
TERRIX RD-PS-S 1.5 polymer-silicate render 1.5mm / TERRIX AD-BW mineral wool base coat	6.1	0.347	939	813
TERRIX AD-BW mineral wool base coat / Frontrock Max E	6.2	0.342	947	813
Frontrock Max E / TERRIX AD-AF flexible adhesive for frame systems	14.8	0.142	1678	813
TERRIX AD-AF flexible adhesive for frame systems / MGO	14.9	0.137	1689	813
MGO / Steel Frame Slab 034	14.9	0.125	1695	831
Steel Frame Slab 034 / AirGuard Reflective E	19.5	0.025	2259	831
AirGuard Reflective E / Gyproc FireLine	19.5	0.025	2259	1426



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Name	T[°C]	d[m]	psat[Pa]	p[Pa]
Gyproc FireLine / Gyproc FireLine	19.5	0.013	2270	1426
Gyproc FireLine / Internal	19.6	0.000	2282	1426
