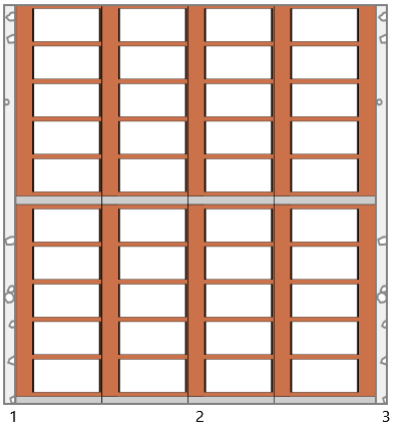
SCENARIO RC1

Type of building component: External Wall

Thermal parameters		
Thermal transmittance	***0.191***	W/m^{2}K
Thickness	***480***	mm
External temperature (winter power calculation)	***-5.0***	°C
Permeance	***68.729***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***432***	kg/m^2
Surface mass (without plaster)	***378***	kg/m^2
Periodic thermal transmittance	***0.001***	W/m^{2}K
Attenuation factor	***0.004***	-
Thermal wave phase shift	***-7.1***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.130	-	-	-
1	Internal plaster	15.00	0.9000	0.017	1800	1.00	22
2	Rectified building brick blocks	450.00	0.0900	5.000	841	1.00	5
3	External plaster	15.00	0.9000	0.017	1800	1.00	22
-	External surface resistance	-	-	0.060	-	-	-

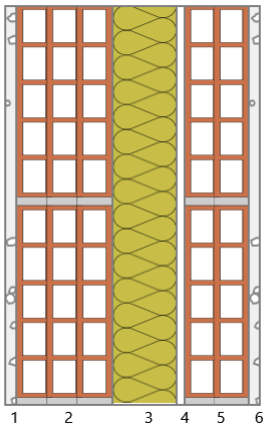
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RC1

Type of building component: Internal Wall

Thermal parameters		
Thermal transmittance	***0.258***	W/m²K
Thickness	***320***	mm
External temperature (winter power calculation)	***7.5***	°C
Permeance	***114.286***	10^{-12}kg/sm²Pa
Surface mass (with plaster)	***251***	kg/m²
Surface mass (without plaster)	***197***	kg/m²
Periodic thermal transmittance	***0.038***	W/m²K
Attenuation factor	***0.148***	-
Thermal wave phase shift	***-14.2***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.130	-	-	-
1	Internal plaster	15.00	0.9000	0.017	1800	1.00	22
2	Hollow bricks	120.00	0.1830	0.656	928	1.00	5
3	Rockwool panel	80.00	0.0340	2.353	70	1.03	1
4	Air cavity	10.00	0.0667	0.150	-	-	-
5	Hollow bricks	80.00	0.1900	0.421	995	1.00	5
6	Internal plaster	15.00	0.9000	0.017	1800	1.00	22
-	External surface resistance	-	-	0.130	-	-	-

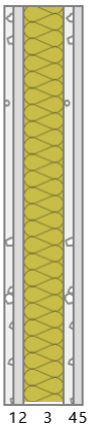
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m²K/W
M.V.	Density	kg/m³
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RC1

Type of building component: Internal Wall

Thermal parameters		
Thermal transmittance	***0.519***	W/m^{2}K
Thickness	***100***	mm
External temperature (winter power calculation)	***-***	°C
Permeance	***320.000***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***50***	kg/m^2
Surface mass (without plaster)	***32***	kg/m^2
Periodic thermal transmittance	***0.479***	W/m^{2}K
Attenuation factor	***0.923***	-
Thermal wave phase shift	***-2.5***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.130	-	-	-
1	Plasterboard	12.50	0.2100	0.060	700	1.00	10
2	Fiber-gypsum board	12.50	0.3200	0.039	1150	1.10	13
3	Rockwool panel	50.00	0.0340	1.471	70	1.03	1
4	Plasterboard	12.50	0.2100	0.060	700	1.00	10
5	Fiber-gypsum board	12.50	0.3200	0.039	1150	1.10	13
-	External surface resistance	-	-	0.130	-	-	-

Legend

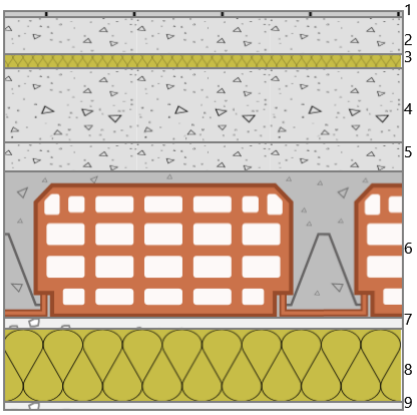
s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RC1

Type of building component: First Floor

Thermal parameters

Thermal transmittance	***0.199***	W/m^{2}K
Thickness	***548***	mm
External temperature (winter power calculation)	***5.0***	°C
Permeance	***0.002***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***519***	kg/m^2
Surface mass (without plaster)	***483***	kg/m^2
Periodic thermal transmittance	***0.003***	W/m^{2}K
Attenuation factor	***0.014***	-
Thermal wave phase shift	***-18.0***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.170	-	-	-
1	Ceramic tiles	10.00	1.3000	0.008	2300	0.84	9999999
2	Self-leveling mortar	50.00	1.0000	0.050	1800	0.88	30
3	Insulation panels for radiant heating	20.00	0.0300	0.667	18	1.15	40
4	Concrete screed	100.00	0.1600	0.625	500	1.00	7
5	Reinforced concrete slab	40.00	2.5000	0.016	2400	1.00	130
6	Prefabricated one-way reinforced concrete joists and hollow brick infill blocks	200.00	0.6600	0.303	1100	0.84	7
7	Mortar	15.00	0.9000	0.017	1800	1.00	22
8	Rockwool panel	100.00	0.0340	2.941	40	1.03	1
9	Plasterboard	12.50	0.2100	0.060	700	1.00	10
-	External surface resistance	-	-	0.170	-	-	-

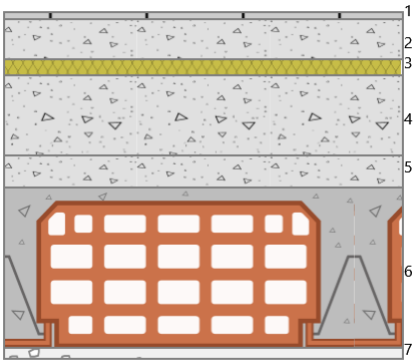
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RC1

Type of building component: Internal Floors

Thermal parameters		
Thermal transmittance	***0.494***	W/m^{2}K
Thickness	***435***	mm
External temperature (winter power calculation)	***14.5***	°C
Permeance	***0.002***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***506***	kg/m^2
Surface mass (without plaster)	***479***	kg/m^2
Periodic thermal transmittance	***0.034***	W/m^{2}K
Attenuation factor	***0.068***	-
Thermal wave phase shift	***-15.6***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.170	-	-	-
1	Ceramic tiles	10.00	1.3000	0.008	2300	0.84	9999999
2	Self-leveling mortar	50.00	1.0000	0.050	1800	0.88	30
3	Insulation panels for radiant heating	20.00	0.0300	0.667	18	1.15	40
4	Concrete screed	100.00	0.1600	0.625	500	1.00	7
5	Reinforced concrete slab	40.00	2.5000	0.016	2400	1.00	130
6	Prefabricated one-way reinforced concrete joists and hollow brick infill blocks	200.00	0.6600	0.303	1100	0.84	7
7	Internal plaster	15.00	0.9000	0.017	1800	1.00	22
-	External surface resistance	-	-	0.170	-	-	-

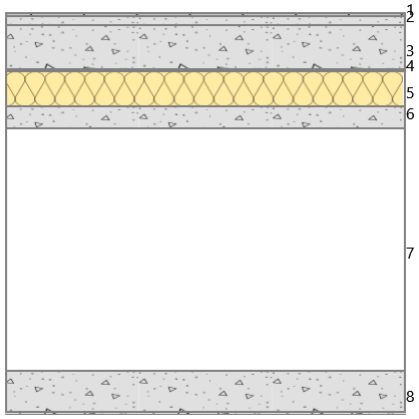
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RC1

Type of building component: Ground Floor

Thermal parameters		
Thermal transmittance	***0.275***	W/m²K
Thickness	***910***	mm
External temperature (winter power calculation)	***-5.0***	°C
Permeance	***0.002***	10^{-12}kg/sm²Pa
Surface mass (with plaster)	***376***	kg/m²
Surface mass (without plaster)	***376***	kg/m²
Periodic thermal transmittance	***0.040***	W/m²K
Attenuation factor	***0.197***	-
Thermal wave phase shift	***-13.6***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.170	-	-	-
1	Ceramic tiles	10.00	1.3000	-	2300	0.84	9999999
2	Self-leveling mortar	20.00	0.3100	-	1000	1.00	7
3	Concrete screed	100.00	0.1600	-	500	1.00	7
4	Vapor barrier	0.15	220.0000	-	2700	0.88	9999999
5	XPS insulation	80.00	0.0340	-	30	1.45	150
6	Reinforced concrete slab	50.00	2.5000	-	2400	1.00	130
7	Air cavity	550.00	-	-	-	-	-
8	Lean concrete slab	100.00	0.7000	-	1600	0.88	-
-	External surface resistance	-	-	0.040	-	-	-

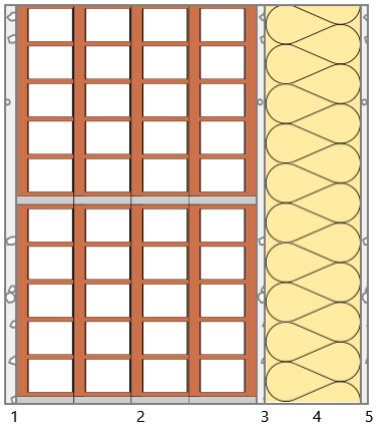
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m²K/W
M.V.	Density	kg/m³
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RC2

Type of building component: External Wall

Thermal parameters		
Thermal transmittance	***0.188***	W/m^{2}K
Thickness	***455***	mm
External temperature (winter power calculation)	***-5.0***	°C
Permeance	***20.942***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***384***	kg/m^2
Surface mass (without plaster)	***326***	kg/m^2
Periodic thermal transmittance	***0.006***	W/m^{2}K
Attenuation factor	***0.030***	-
Thermal wave phase shift	***-17.5***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.130	-	-	-
1	Internal plaster	15.00	0.9000	0.017	1800	1.00	22
2	Hollow bricks	300.00	0.2500	1.200	1082	1.00	5
3	Synthetic glue for insulation boards	10.00	0.9000	0.011	1800	1.00	22
4	EPS insulation	120.00	0.0310	3.871	15	1.45	60
5	ETICS coating	10.00	0.3000	0.033	1300	0.84	30
-	External surface resistance	-	-	0.060	-	-	-

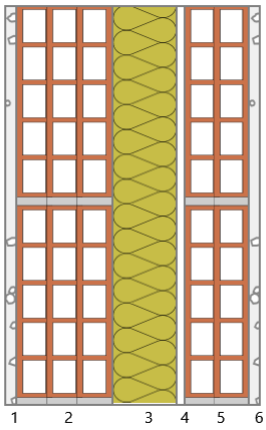
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RC2

Type of building component: Internal Wall

Thermal parameters		
Thermal transmittance	***0.258***	W/m^{2}K
Thickness	***320***	mm
External temperature (winter power calculation)	***7.5***	°C
Permeance	***114.286***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***251***	kg/m^2
Surface mass (without plaster)	***197***	kg/m^2
Periodic thermal transmittance	***0.038***	W/m^{2}K
Attenuation factor	***0.148***	-
Thermal wave phase shift	***-14.2***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	*0.130*	-	-	-
1	Internal plaster	*15.00*	*0.9000*	*0.017*	*1800*	*1.00*	*22*
2	Hollow bricks	*120.00*	*0.1830*	*0.656*	*928*	*1.00*	*5*
3	Rockwool panel	*80.00*	*0.0340*	*2.353*	*70*	*1.03*	*1*
4	Air cavity	*10.00*	*0.0667*	*0.150*	-	-	-
5	Hollow bricks	*80.00*	*0.1900*	*0.421*	*995*	*1.00*	*5*
6	Internal plaster	*15.00*	*0.9000*	*0.017*	*1800*	*1.00*	*22*
-	External surface resistance	-	-	*0.130*	-	-	-

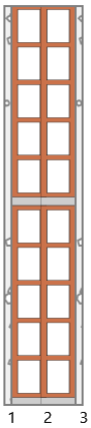
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RC2

Type of building component: Internal Wall

Thermal parameters		
Thermal transmittance	***1.422***	W/m^{2}K
Thickness	***100***	mm
External temperature (winter power calculation)	***-***	°C
Permeance	***238.095***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***116***	kg/m^2
Surface mass (without plaster)	***80***	kg/m^2
Periodic thermal transmittance	***1.110***	W/m^{2}K
Attenuation factor	***0.781***	-
Thermal wave phase shift	***-4.1***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.130	-	-	-
1	Internal plaster	10.00	0.9000	0.011	1800	1.00	22
2	Hollow bricks	80.00	0.1900	0.421	995	1.00	5
3	Internal plaster	10.00	0.9000	0.011	1800	1.00	22
-	External surface resistance	-	-	0.130	-	-	-

Legend

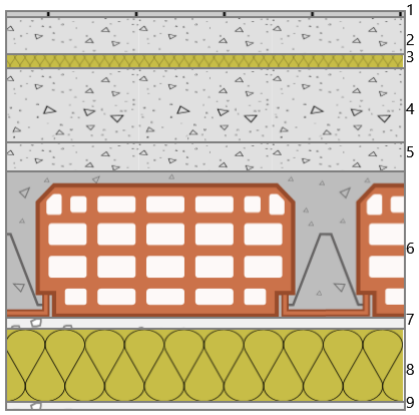
s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RC2

Type of building component: First Floor

Thermal parameters

Thermal transmittance	***0.199***	W/m^{2}K
Thickness	***548***	mm
External temperature (winter power calculation)	***5.0***	°C
Permeance	***0.002***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***519***	kg/m^2
Surface mass (without plaster)	***483***	kg/m^2
Periodic thermal transmittance	***0.003***	W/m^{2}K
Attenuation factor	***0.014***	-
Thermal wave phase shift	***-18.0***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.170	-	-	-
1	Ceramic tiles	10.00	1.3000	0.008	2300	0.84	9999999
2	Self-leveling mortar	50.00	1.0000	0.050	1800	0.88	30
3	Insulation panels for radiant heating	20.00	0.0300	0.667	18	1.15	40
4	Concrete screed	100.00	0.1600	0.625	500	1.00	7
5	Reinforced concrete slab	40.00	2.5000	0.016	2400	1.00	130
6	Prefabricated one-way reinforced concrete joists and hollow brick infill blocks	200.00	0.6600	0.303	1100	0.84	7
7	Synthetic glue for insulation boards	15.00	0.9000	0.017	1800	1.00	22
8	Rockwool panel	100.00	0.0340	2.941	40	1.03	1
9	Plasterboard	12.50	0.2100	0.060	700	1.00	10
-	External surface resistance	-	-	0.170	-	-	-

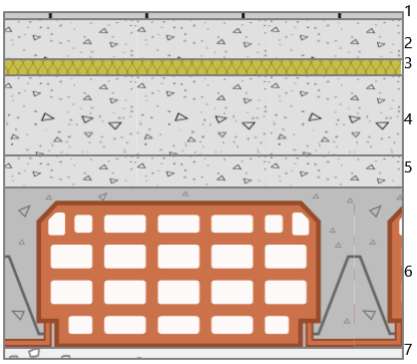
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RC2

Type of building component: Internal Floors

Thermal parameters		
Thermal transmittance	***0.494***	W/m^{2}K
Thickness	***435***	mm
External temperature (winter power calculation)	***14.5***	°C
Permeance	***0.002***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***506***	kg/m^2
Surface mass (without plaster)	***479***	kg/m^2
Periodic thermal transmittance	***0.034***	W/m^{2}K
Attenuation factor	***0.068***	-
Thermal wave phase shift	***-15.6***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.170	-	-	-
1	Ceramic tiles	10.00	1.3000	0.008	2300	0.84	9999999
2	Self-leveling mortar	50.00	1.0000	0.050	1800	0.88	30
3	Insulation panels for radiant heating	20.00	0.0300	0.667	18	1.15	40
4	Concrete screed	100.00	0.1600	0.625	500	1.00	7
5	Reinforced concrete slab	40.00	2.5000	0.016	2400	1.00	130
6	Prefabricated one-way reinforced concrete joists and hollow brick infill blocks	200.00	0.6600	0.303	1100	0.84	7
7	Internal plaster	15.00	0.9000	0.017	1800	1.00	22
-	External surface resistance	-	-	0.170	-	-	-

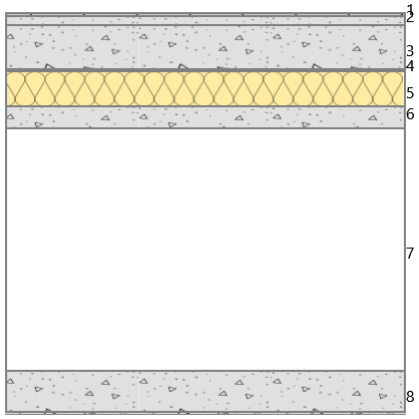
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RC2

Type of building component: Ground Floor

Thermal parameters		
Thermal transmittance	***0.275***	W/m^{2}K
Thickness	***910***	mm
External temperature (winter power calculation)	***-5.0***	°C
Permeance	***0.002***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***376***	kg/m^2
Surface mass (without plaster)	***376***	kg/m^2
Periodic thermal transmittance	***0.040***	W/m^{2}K
Attenuation factor	***0.197***	-
Thermal wave phase shift	***-13.6***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.170	-	-	-
1	Ceramic tiles	10.00	1.3000	-	2300	0.84	9999999
2	Self-leveling mortar	20.00	0.3100	-	1000	1.00	7
3	Concrete screed	100.00	0.1600	-	500	1.00	7
4	Vapor barrier	0.15	220.0000	-	2700	0.88	9999999
5	XPS insulation	80.00	0.0340	-	30	1.45	150
6	Reinforced concrete slab	50.00	2.5000	-	2400	1.00	130
7	Air cavity	550.00	-	-	-	-	-
8	Lean concrete slab	100.00	0.7000	-	1600	0.88	-
-	External surface resistance	-	-	0.040	-	-	-

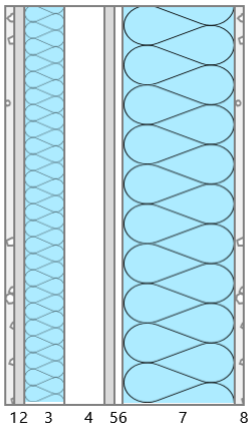
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RS

Type of building component: External Wall

Thermal parameters		
Thermal transmittance	***0.151***	W/m^{2}K
Thickness	***300***	mm
External temperature (winter power calculation)	***-5.0***	°C
Permeance	***263.158***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***60***	kg/m^2
Surface mass (without plaster)	***51***	kg/m^2
Periodic thermal transmittance	***0.067***	W/m^{2}K
Attenuation factor	***0.446***	-
Thermal wave phase shift	***-6.9***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	*0.130*	-	-	-
1	Plasterboard	*12.50*	*0.2100*	*0.060*	*700*	*1.00*	*10*
2	Fiber-gypsum board	*12.50*	*0.3200*	*0.039*	*1150*	*1.10*	*13*
3	Glass wool insulation	*50.00*	*0.0320*	*1.563*	*35*	*1.03*	*1*
4	Air cavity	*50.00*	*0.2778*	*0.180*	-	-	-
5	Fiber-gypsum board	*12.50*	*0.3200*	*0.039*	*1150*	*1.10*	*13*
6	Air cavity	*10.00*	*0.0667*	*0.150*	-	-	-
7	Glass wool insulation	*140.00*	*0.0320*	*4.375*	*35*	*1.03*	*1*
8	Cement board	*12.50*	*0.3500*	*0.036*	*1250*	*1.00*	*8*
-	External surface resistance	-	-	*0.060*	-	-	-

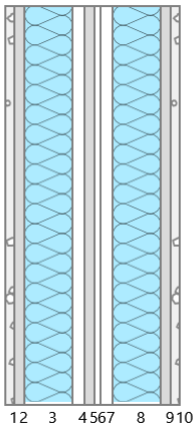
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RS

Type of building component: Internal Wall

Thermal parameters		
Thermal transmittance	***0.212***	W/m²K
Thickness	***220***	mm
External temperature (winter power calculation)	***7.5***	°C
Permeance	***225.352***	10^{-12}kg/sm²Pa
Surface mass (with plaster)	***65***	kg/m²
Surface mass (without plaster)	***47***	kg/m²
Periodic thermal transmittance	***0.108***	W/m²K
Attenuation factor	***0.509***	-
Thermal wave phase shift	***-6.6***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.130	-	-	-
1	Plasterboard	12.50	0.2100	0.060	700	1.00	10
2	Fiber-gypsum board	12.50	0.3200	0.039	1150	1.10	13
3	Glass wool insulation	60.00	0.0320	1.875	35	1.03	1
4	Air cavity	15.00	0.0882	0.170	-	-	-
5	Fiber-gypsum board	12.50	0.3200	0.039	1150	1.10	13
6	Air cavity	7.50	0.0563	0.133	-	-	-
7	Air cavity	15.00	0.0882	0.170	-	-	-
8	Glass wool insulation	60.00	0.0320	1.875	35	1.03	1
9	Fiber-gypsum board	12.50	0.3200	0.039	1150	1.10	13
10	Plasterboard	12.50	0.2100	0.060	700	1.00	10
-	External surface resistance	-	-	0.130	-	-	-

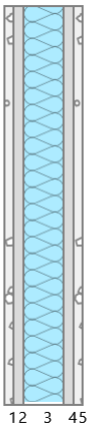
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m²K/W
M.V.	Density	kg/m³
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RS

Type of building component: Internal Wall

Thermal parameters		
Thermal transmittance	***0.495***	W/m^{2}K
Thickness	***100***	mm
External temperature (winter power calculation)	***-***	°C
Permeance	***320.000***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***48***	kg/m^2
Surface mass (without plaster)	***31***	kg/m^2
Periodic thermal transmittance	***0.455***	W/m^{2}K
Attenuation factor	***0.919***	-
Thermal wave phase shift	***-2.5***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.130	-	-	-
1	Plasterboard	12.50	0.2100	0.060	700	1.00	10
2	Fiber-gypsum board	12.50	0.3200	0.039	1150	1.10	13
3	Glass wool insulation	50.00	0.0320	1.563	35	1.03	1
4	Fiber-gypsum board	12.50	0.3200	0.039	1150	1.10	13
5	Plasterboard	12.50	0.2100	0.060	700	1.00	10
-	External surface resistance	-	-	0.130	-	-	-

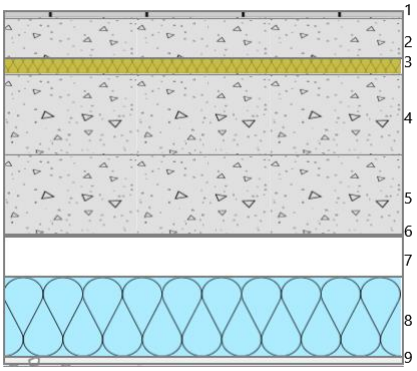
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RS

Type of building component: First Floor

Thermal parameters		
Thermal transmittance	***0.202***	W/m^{2}K
Thickness	***443***	mm
External temperature (winter power calculation)	***5.0***	°C
Permeance	***0.002***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***421***	kg/m^2
Surface mass (without plaster)	***412***	kg/m^2
Periodic thermal transmittance	***0.005***	W/m^{2}K
Attenuation factor	***0.026***	-
Thermal wave phase shift	***-13.5***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.170	-	-	-
1	Ceramic tiles	10.00	1.3000	0.008	2300	0.84	9999999
2	Self-leveling mortar	50.00	1.0000	0.050	1800	0.88	30
3	Insulation panels for radiant heating	20.00	0.0300	0.667	18	1.15	40
4	Concrete screed	100.00	0.1600	0.625	500	1.00	7
5	Reinforced concrete slab	100.00	2.5000	0.040	2400	1.00	130
6	Steel sheeting	0.80	52.0000	0.000	7800	0.45	9999999
7	Air cavity	50.00	0.2381	0.210	-	-	-
8	Glass wool insulation	100.00	0.0340	2.941	25	1.03	1
9	Plasterboard	12.50	0.2100	0.060	700	1.00	10
-	External surface resistance	-	-	0.170	-	-	-

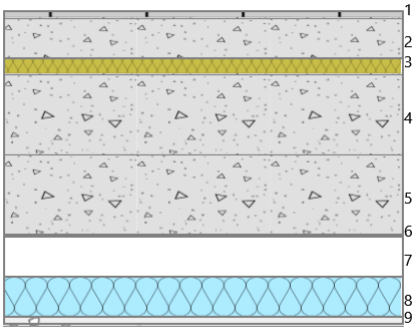
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RS

Type of building component: Internal Floors

Thermal parameters		
Thermal transmittance	***0.288***	W/m^{2}K
Thickness	***393***	mm
External temperature (winter power calculation)	***14.5***	°C
Permeance	***0.002***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***420***	kg/m^2
Surface mass (without plaster)	***411***	kg/m^2
Periodic thermal transmittance	***0.009***	W/m^{2}K
Attenuation factor	***0.032***	-
Thermal wave phase shift	***-13.1***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.170	-	-	-
1	Ceramic tiles	10.00	1.3000	0.008	2300	0.84	9999999
2	Self-leveling mortar	50.00	1.0000	0.050	1800	0.88	30
3	Insulation panels for radiant heating	20.00	0.0300	0.667	18	1.15	40
4	Concrete screed	100.00	0.1600	0.625	500	1.00	7
5	Reinforced concrete slab	100.00	2.5000	0.040	2400	1.00	130
6	Steel sheeting	0.80	52.0000	0.000	7800	0.45	9999999
7	Air cavity	50.00	0.2381	0.210	-	-	-
8	Glass wool insulation	50.00	0.0340	1.471	25	1.03	1
9	Plasterboard	12.50	0.2100	0.060	700	1.00	10
-	External surface resistance	-	-	0.170	-	-	-

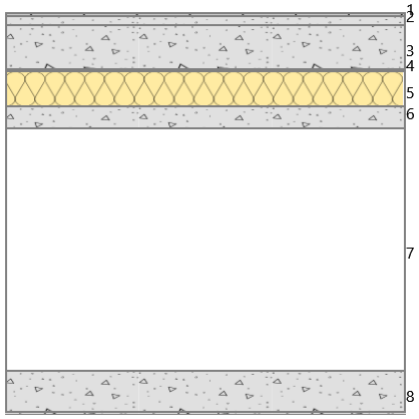
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RS

Type of building component: Ground Floor

Thermal parameters		
Thermal transmittance	***0.275***	W/m^{2}K
Thickness	***910***	mm
External temperature (winter power calculation)	***-5.0***	°C
Permeance	***0.002***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***376***	kg/m^2
Surface mass (without plaster)	***376***	kg/m^2
Periodic thermal transmittance	***0.040***	W/m^{2}K
Attenuation factor	***0.197***	-
Thermal wave phase shift	***-13.6***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.170	-	-	-
1	Ceramic tiles	10.00	1.3000	-	2300	0.84	9999999
2	Self-leveling mortar	20.00	0.3100	-	1000	1.00	7
3	Concrete screed	100.00	0.1600	-	500	1.00	7
4	Vapor barrier	0.15	220.0000	-	2700	0.88	9999999
5	XPS insulation	80.00	0.0340	-	30	1.45	150
6	Reinforced concrete slab	50.00	2.5000	-	2400	1.00	130
7	Air cavity	550.00	-	-	-	-	-
8	Lean concrete slab	100.00	0.7000	-	1600	0.88	-
-	External surface resistance	-	-	0.040	-	-	-

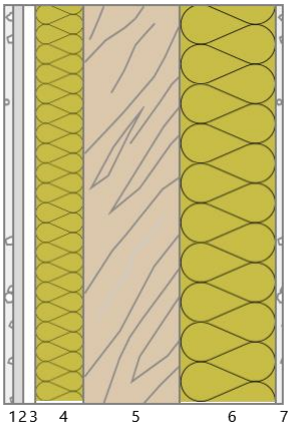
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RW

Type of building component: External Wall

Thermal parameters		
Thermal transmittance	***0.150***	W/m^{2}K
Thickness	***350***	mm
External temperature (winter power calculation)	***-5.0***	°C
Permeance	***29.509***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***129***	kg/m^2
Surface mass (without plaster)	***107***	kg/m^2
Periodic thermal transmittance	***0.007***	W/m^{2}K
Attenuation factor	***0.046***	-
Thermal wave phase shift	***-14.5***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.130	-	-	-
1	Plasterboard	12.50	0.2100	0.060	700	1.00	10
2	Fiber-gypsum board	12.50	0.3200	0.039	1150	1.10	13
3	Air cavity	15.00	0.0882	0.170	-	-	-
4	Rockwool panel	60.00	0.0350	1.714	70	1.03	1
5	CLT panel	120.00	0.1300	0.923	650	1.70	50
6	Rockwool panel	120.00	0.0340	3.529	90	1.03	1
7	ETICS coating	10.00	0.3000	0.033	1300	0.84	30
-	External surface resistance	-	-	0.060	-	-	-

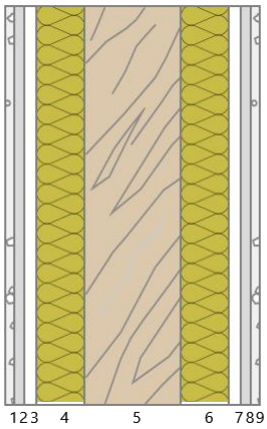
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RW

Type of building component: Internal Wall

Thermal parameters		
Thermal transmittance	***0.194***	W/m^{2}K
Thickness	***320***	mm
External temperature (winter power calculation)	***7.5***	°C
Permeance	***29.784***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***133***	kg/m^2
Surface mass (without plaster)	***115***	kg/m^2
Periodic thermal transmittance	***0.012***	W/m^{2}K
Attenuation factor	***0.060***	-
Thermal wave phase shift	***-13.8***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	*0.130*	-	-	-
1	Plasterboard	*12.50*	*0.2100*	*0.060*	*700*	*1.00*	*10*
2	Fiber-gypsum board	*12.50*	*0.3200*	*0.039*	*1150*	*1.10*	*13*
3	Air cavity	*15.00*	*0.0882*	*0.170*	-	-	-
4	Rockwool panel	*60.00*	*0.0350*	*1.714*	*70*	*1.03*	*1*
5	CLT panel	*120.00*	*0.1300*	*0.923*	*650*	*1.70*	*50*
6	Rockwool panel	*60.00*	*0.0350*	*1.714*	*70*	*1.03*	*1*
7	Air cavity	*15.00*	*0.0882*	*0.170*	-	-	-
8	Fiber-gypsum board	*12.50*	*0.3200*	*0.039*	*1150*	*1.10*	*13*
9	Plasterboard	*12.50*	*0.2100*	*0.060*	*700*	*1.00*	*10*
-	External surface resistance	-	-	*0.130*	-	-	-

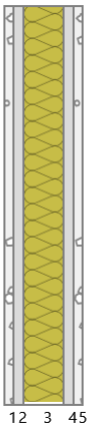
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RW

Type of building component: Internal Wall

Thermal parameters		
Thermal transmittance	***0.530***	W/m^{2}K
Thickness	***100***	mm
External temperature (winter power calculation)	***-***	°C
Permeance	***320.000***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***48***	kg/m^2
Surface mass (without plaster)	***31***	kg/m^2
Periodic thermal transmittance	***0.487***	W/m^{2}K
Attenuation factor	***0.919***	-
Thermal wave phase shift	***-2.5***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.130	-	-	-
1	Plasterboard	12.50	0.2100	0.060	700	1.00	10
2	Fiber-gypsum board	12.50	0.3200	0.039	1150	1.10	13
3	Rockwool panel	50.00	0.0350	1.429	40	1.03	1
4	Fiber-gypsum board	12.50	0.3200	0.039	1150	1.10	13
5	Plasterboard	12.50	0.2100	0.060	700	1.00	10
-	External surface resistance	-	-	0.130	-	-	-

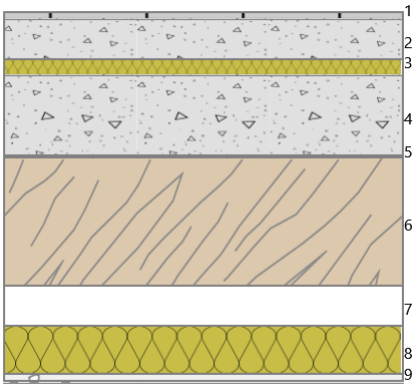
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RW

Type of building component: First Floor

Thermal parameters		
Thermal transmittance	***0.204***	W/m²K
Thickness	***463***	mm
External temperature (winter power calculation)	***5.0***	°C
Permeance	***0.002***	10^{-12}kg/sm²Pa
Surface mass (with plaster)	***279***	kg/m²
Surface mass (without plaster)	***270***	kg/m²
Periodic thermal transmittance	***0.003***	W/m²K
Attenuation factor	***0.016***	-
Thermal wave phase shift	***-20.7***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.170	-	-	-
1	Ceramic tiles	10.00	1.3000	0.008	2300	0.84	9999999
2	Self-leveling mortar	50.00	1.0000	0.050	1800	0.88	30
3	Insulation panels for radiant heating	20.00	0.0300	0.667	18	1.15	40
4	Concrete screed	100.00	0.1600	0.625	500	1.00	7
5	Vapor barrier	0.25	0.2200	0.001	0	1.00	40000
6	CLT panel	160.00	0.1300	1.231	650	1.70	50
7	Air cavity	50.00	0.2381	0.210	-	-	-
8	Rockwool panel	60.00	0.0350	1.714	40	1.03	1
9	Plasterboard	12.50	0.2100	0.060	700	1.00	10
-	External surface resistance	-	-	0.170	-	-	-

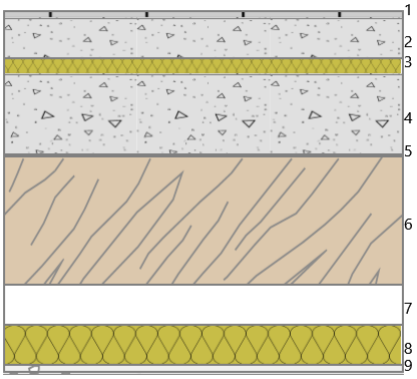
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m²K/W
M.V.	Density	kg/m³
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RW

Type of building component: Internal Floors

Thermal parameters		
Thermal transmittance	***0.216***	W/m²K
Thickness	***453***	mm
External temperature (winter power calculation)	***14.5***	°C
Permeance	***0.002***	10^{-12}kg/sm²Pa
Surface mass (with plaster)	***278***	kg/m²
Surface mass (without plaster)	***269***	kg/m²
Periodic thermal transmittance	***0.004***	W/m²K
Attenuation factor	***0.017***	-
Thermal wave phase shift	***-20.6***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.170	-	-	-
1	Ceramic tiles	10.00	1.3000	0.008	2300	0.84	9999999
2	Self-leveling mortar	50.00	1.0000	0.050	1800	0.88	30
3	Insulation panels for radiant heating	20.00	0.0300	0.667	18	1.15	40
4	Concrete screed	100.00	0.1600	0.625	500	1.00	7
5	Vapor barrier	0.25	0.2200	0.001	0	1.00	40000
6	CLT panel	160.00	0.1300	1.231	650	1.70	50
7	Air cavity	50.00	0.2381	0.210	-	-	-
8	Rockwool panel	50.00	0.0350	1.429	40	1.03	1
9	Plasterboard	12.50	0.2100	0.060	700	1.00	10
-	External surface resistance	-	-	0.170	-	-	-

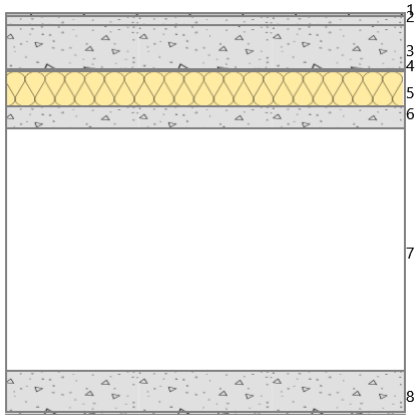
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m²K/W
M.V.	Density	kg/m³
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RW

Type of building component: Ground Floor

Thermal parameters		
Thermal transmittance	***0.275***	W/m^{2}K
Thickness	***910***	mm
External temperature (winter power calculation)	***-5.0***	°C
Permeance	***0.002***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***376***	kg/m^2
Surface mass (without plaster)	***376***	kg/m^2
Periodic thermal transmittance	***0.040***	W/m^{2}K
Attenuation factor	***0.197***	-
Thermal wave phase shift	***-13.6***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.170	-	-	-
1	Ceramic tiles	10.00	1.3000	-	2300	0.84	9999999
2	Self-leveling mortar	20.00	0.3100	-	1000	1.00	7
3	Concrete screed	100.00	0.1600	-	500	1.00	7
4	Vapor barrier	0.15	220.0000	-	2700	0.88	9999999
5	XPS insulation	80.00	0.0340	-	30	1.45	150
6	Reinforced concrete slab	50.00	2.5000	-	2400	1.00	130
7	Air cavity	550.00	-	-	-	-	-
8	Lean concrete slab	100.00	0.7000	-	1600	0.88	-
-	External surface resistance	-	-	0.040	-	-	-

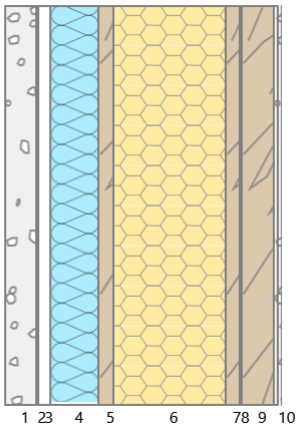
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RH

Type of building component: External Wall

Thermal parameters		
Thermal transmittance	***0.143***	W/m²K
Thickness	***341***	mm
External temperature (winter power calculation)	***-5.0***	°C
Permeance	***10.355***	10^{-12}kg/sm²Pa
Surface mass (with plaster)	***116***	kg/m²
Surface mass (without plaster)	***103***	kg/m²
Periodic thermal transmittance	***0.019***	W/m²K
Attenuation factor	***0.135***	-
Thermal wave phase shift	***-14.4***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.130	-	-	-
1	Clayboard	40.00	0.3500	0.114	1600	1.10	10
2	Vapor barrier	0.15	0.3300	0.000	920	2.20	100000
3	Air cavity	15.00	0.0882	0.170	-	-	-
4	Textile insulation	60.00	0.0360	1.667	60	1.03	10
5	OSB panel	18.00	0.1200	0.150	600	1.70	70
6	Cellulose insulation	140.00	0.0390	3.590	50	1.60	2
7	OSB panel	18.00	0.1200	0.150	600	1.70	70
8	Waterproofing membrane	0.25	0.2200	0.001	0	1.00	17
9	Wood fibre insulation	40.00	0.0430	0.930	160	2.00	5
10	ETICS coating	10.00	0.3000	0.033	1300	0.84	30
-	External surface resistance	-	-	0.060	-	-	-

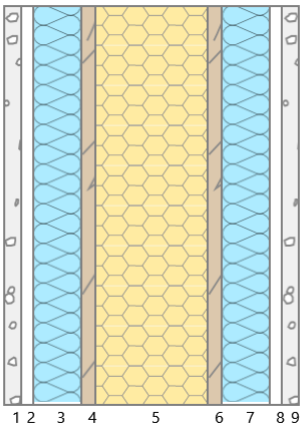
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m²K/W
M.V.	Density	kg/m³
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RH

Type of building component: Internal Wall

Thermal parameters		
Thermal transmittance	***0.126***	W/m^{2}K
Thickness	***370***	mm
External temperature (winter power calculation)	***7.5***	°C
Permeance	***44.843***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***106***	kg/m^2
Surface mass (without plaster)	***106***	kg/m^2
Periodic thermal transmittance	***0.014***	W/m^{2}K
Attenuation factor	***0.110***	-
Thermal wave phase shift	***-14.6***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.130	-	-	-
1	Clayboard	22.00	0.3500	0.063	1600	1.10	10
2	Air cavity	15.00	0.0882	0.170	-	-	-
3	Textile insulation	60.00	0.0360	1.667	60	1.03	10
4	OSB panel	18.00	0.1200	0.150	600	1.70	70
5	Cellulose insulation	140.00	0.0390	3.590	50	1.60	2
6	OSB panel	18.00	0.1200	0.150	600	1.70	70
7	Textile insulation	60.00	0.0360	1.667	60	1.03	10
8	Air cavity	15.00	0.0882	0.170	-	-	-
9	Clayboard	22.00	0.3500	0.063	1600	1.10	10
-	External surface resistance	-	-	0.130	-	-	-

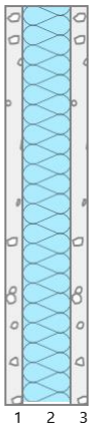
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RH

Type of building component: Internal Wall

Thermal parameters		
Thermal transmittance	***0.487***	W/m^{2}K
Thickness	***104***	mm
External temperature (winter power calculation)	***-***	°C
Permeance	***192.308***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***74***	kg/m^2
Surface mass (without plaster)	***74***	kg/m^2
Periodic thermal transmittance	***0.417***	W/m^{2}K
Attenuation factor	***0.856***	-
Thermal wave phase shift	***-3.4***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	*0.130*	-	-	-
1	Clayboard	*22.00*	*0.3500*	*0.063*	*1600*	*1.10*	*10*
2	Textile insulation	*60.00*	*0.0360*	*1.667*	*60*	*1.03*	*10*
3	Clayboard	*22.00*	*0.3500*	*0.063*	*1600*	*1.10*	*10*
-	External surface resistance	-	-	*0.130*	-	-	-

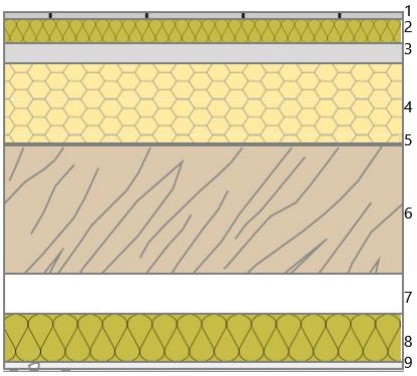
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RH

Type of building component: First Floor

Thermal parameters		
Thermal transmittance	***0.148***	W/m^{2}K
Thickness	***448***	mm
External temperature (winter power calculation)	***5.0***	°C
Permeance	***0.002***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***179***	kg/m^2
Surface mass (without plaster)	***170***	kg/m^2
Periodic thermal transmittance	***0.002***	W/m^{2}K
Attenuation factor	***0.013***	-
Thermal wave phase shift	***-20.3***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.170	-	-	-
1	Ceramic tiles	10.00	1.3000	0.008	2300	0.84	9999999
2	Wooden dry radiant panel	30.00	0.0560	0.536	225	2.10	5
3	Fiber-gypsum board	25.00	0.3200	0.078	1150	1.10	13
4	Cellulose insulation	100.00	0.0390	2.564	50	1.60	2
5	Vapor barrier	0.25	0.2200	0.001	0	1.00	40000
6	CLT panel	160.00	0.1300	1.231	650	1.70	50
7	Air cavity	50.00	0.2381	0.210	-	-	-
8	Rockwool panel	60.00	0.0350	1.714	40	1.03	1
9	Plasterboard	12.50	0.2100	0.060	700	1.00	10
-	External surface resistance	-	-	0.170	-	-	-

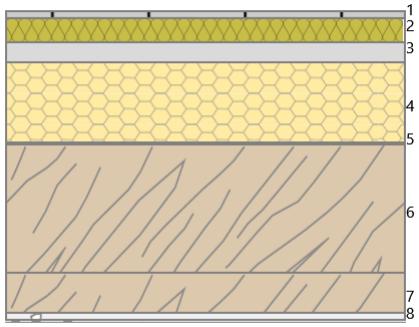
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RH

Type of building component: Internal Floors

Thermal parameters		
Thermal transmittance	***0.163***	W/m^{2}K
Thickness	***388***	mm
External temperature (winter power calculation)	***14.5***	°C
Permeance	***0.002***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***179***	kg/m^2
Surface mass (without plaster)	***170***	kg/m^2
Periodic thermal transmittance	***0.003***	W/m^{2}K
Attenuation factor	***0.015***	-
Thermal wave phase shift	***-20.3***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.170	-	-	-
1	Ceramic tiles	10.00	1.3000	0.008	2300	0.84	9999999
2	Wooden dry radiant panel	30.00	0.0560	0.536	225	2.10	5
3	Fiber-gypsum board	25.00	0.3200	0.078	1150	1.10	13
4	Cellulose insulation	100.00	0.0390	2.564	50	1.60	2
5	Vapor barrier	0.25	0.2200	0.001	0	1.00	40000
6	CLT panel	160.00	0.1300	1.231	650	1.70	50
7	Wood fibre insulation	50.00	0.0380	1.316	50	2.00	5
8	Plasterboard	12.50	0.2100	0.060	700	1.00	10
-	External surface resistance	-	-	0.170	-	-	-

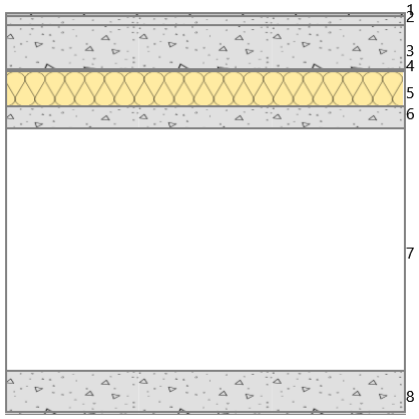
Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-

SCENARIO RH

Type of building component: Ground Floor

Thermal parameters		
Thermal transmittance	***0.275***	W/m^{2}K
Thickness	***910***	mm
External temperature (winter power calculation)	***-5.0***	°C
Permeance	***0.002***	10^{-12}kg/sm^{2}Pa
Surface mass (with plaster)	***376***	kg/m^2
Surface mass (without plaster)	***376***	kg/m^2
Periodic thermal transmittance	***0.040***	W/m^{2}K
Attenuation factor	***0.197***	-
Thermal wave phase shift	***-13.6***	h



Stratigraphy:

N.	Layer	s	Cond.	R	M.V.	C.T.	R.V.
-	Internal surface resistance	-	-	0.170	-	-	-
1	Ceramic tiles	10.00	1.3000	-	2300	0.84	9999999
2	Self-leveling mortar	20.00	0.3100	-	1000	1.00	7
3	Concrete screed	100.00	0.1600	-	500	1.00	7
4	Vapor barrier	0.15	220.0000	-	2700	0.88	9999999
5	XPS insulation	80.00	0.0340	-	30	1.45	150
6	Reinforced concrete slab	50.00	2.5000	-	2400	1.00	130
7	Air cavity	550.00	-	-	-	-	-
8	Lean concrete slab	100.00	0.7000	-	1600	0.88	-
-	External surface resistance	-	-	0.040	-	-	-

Legend

s	Thickness	mm
Cond.	Thermal conductivity, including any correction factors	W/mK
R	Thermal resistance	m^{2}K/W
M.V.	Density	kg/m^3
C.T.	Specific heat capacity	kJ/kgK
R.V.	Water vapor diffusion resistance factor in dry state	-