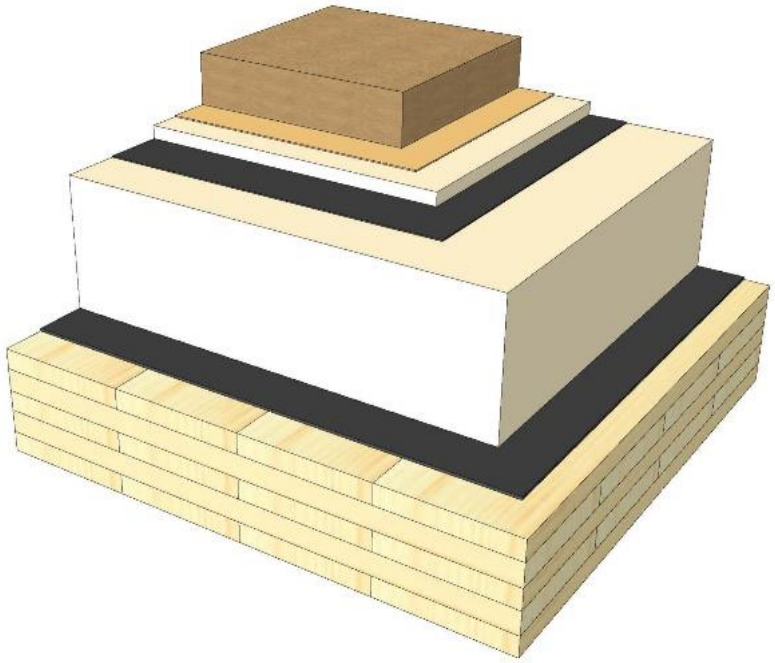
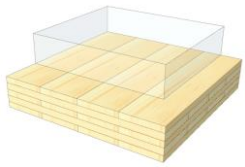
DA 05

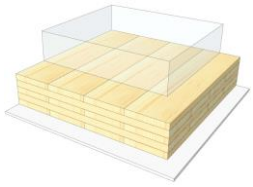
Flat roof / greening



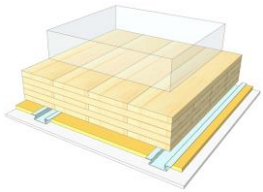
KLH® Visible



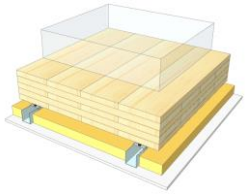
+ G



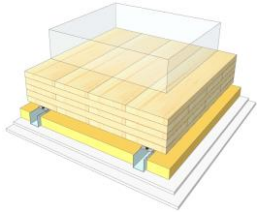
+ RP



+ SC



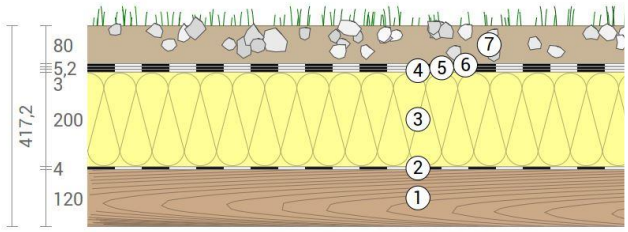
+ SC / 2*G

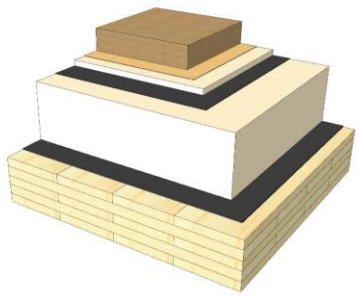


		KLH® Visible	+ G	+ RP	+ SC	+ SC / 2*G
Airborne	Rw [dB]	47	48	53	56	62
Impact	Ln,w [dB]					
Thermal	U [W/m²K]	0,14	0,14	0,13	0,12	0,12
Fire	R*EI [min]	60	60	60	60	90
Thickness	[mm]	417	430	457	490	502
Ecology	[kg CO2 eq./m²]	-53	-51	-47	-45	-43

DA 05 V

Flat roof / EPS / green roof





No	mm	Material
1	120	KLH® - CLT
2	4	Vapour barrier
3	200	Roof panel, EPS
4	3	Roof sealing sheet, 1st layer
5	5	Roof sealing sheet, 2nd layer
6	5	Separating layer
7	80	Green roof system

R*EI (fire attack from below)	
60	minutes

U-Value	
0,14	W/(m²K)

Rw		
47	(-2;-7)	dB

Thickness	
417	mm

Mass per squaremeter	
220	kg/m²

Global warming potential	
-53	kg CO_2 eq./m²

Primary energy (n. renewable)	
329	kWh/m²

Link Ubakus
DA 05 V Ubakus

Link pre-dimensioning fire
KLH REI 60

Fire resistance R*EI **60**

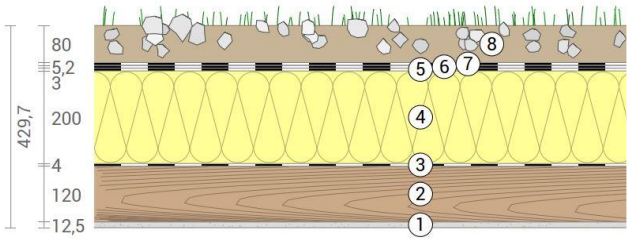
Thermal protection W/(m²K) **0,14**

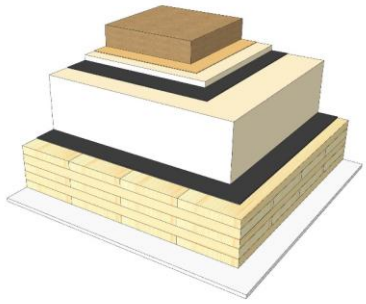
Sound insulation dB **47**

Ecology kg CO2 eq./m² **-53**

DA 05 G

Flat roof / EPS / green roof
Cladded





No	mm	Material
1	12,5	Gt-F board
2	120	KLH® - CLT
3	4	Vapour barrier
4	200	Roof panel, EPS
5	3	Roof sealing sheet, 1st layer
6	5	Roof sealing sheet, 2nd layer
7	5	Separating layer
8	80	Green roof system

R*EI (fire attack from below)
60 minutes

U-Value
0,14 W/(m²K)

Rw
48 (-2;-7) dB

Thickness
430 mm

Mass per squaremeter
230 kg/m²

Global warming potential
-51 kg CO_2 eq./m²

Primary energy (n. renewable)
340 kWh/m²

Link Ubakus
DA 05 G Ubakus

Link pre-dimensioning fire
KLH REI 60

Fire resistance R*EI **60**

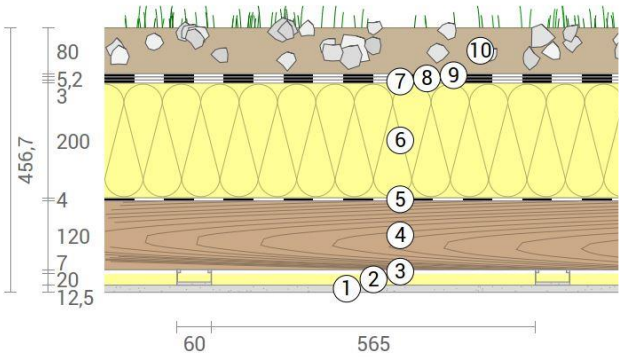
Thermal protection W/(m²K) **0,14**

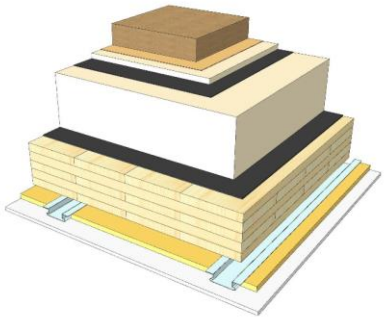
Sound insulation dB **48**

Ecology kg CO2 eq./m² **-51**

DA 05 RP

Flat roof / EPS / green roof
SC on resilient profiles





No	mm	Material
1	12,5	Gt-F board
2	20	Mineral wool
3	27	Resilient profile
4	120	KLH® - CLT
5	4	Vapour barrier
6	200	Roof panel, EPS
7	3	Roof sealing sheet, 1st layer
8	5	Roof sealing sheet, 2nd layer
9	5	Separating layer
10	80	Green roof system

R*EI (fire attack from below)
60 minutes

U-Value
0,13 W/(m²K)

Rw
53 (-2;-7) dB

Thickness
457 mm

Mass per squaremeter
231 kg/m²

Global warming potential
-47 kg CO_2 eq./m²

Primary energy (n. renewable)
351 kWh/m²

Link Ubakus
DA 05 RP Ubakus

Link pre-dimensioning fire
KLH REI 60

Fire resistance R*EI **60**

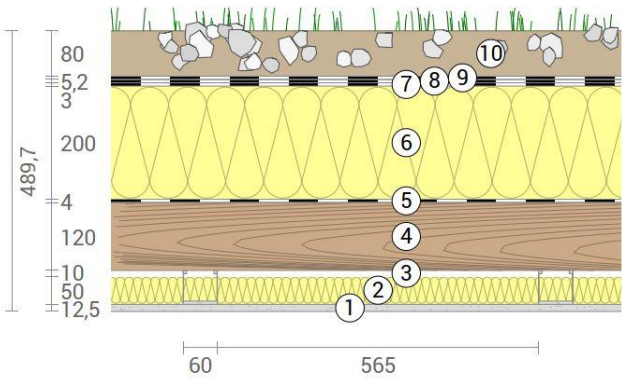
Thermal protection W/(m²K) **0,13**

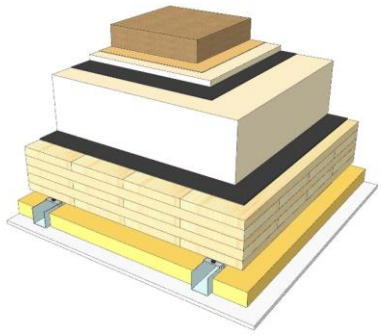
Sound insulation dB **53**

Ecology kg CO2 eq./m² **-47**

DA 05 SC

Flat roof / EPS / green roof
SC on CD-profiles





No	mm	Material
1	12,5	Gt-F board
2	50	Rock wool
3	60	CD-profiles
4	120	KLH® - CLT
5	4	Vapour barrier
6	200	Roof panel, EPS
7	3	Roof sealing sheet, 1st layer
8	5	Roof sealing sheet, 2nd layer
9	5	Separating layer
10	80	Green roof system

R*EI (fire attack from below)
60 minutes

U-Value
0,12 W/(m²K)

Rw
56 (-1;-5) dB

Thickness
490 mm

Mass per squaremeter
232 kg/m²

Global warming potential
-45 kg CO_2 eq./m²

Primary energy (n. renewable)
359 kWh/m²

Link Ubakus
DA 05 SC Ubakus

Link pre-dimensioning fire
KLH REI 60

Fire resistance R*EI **60**

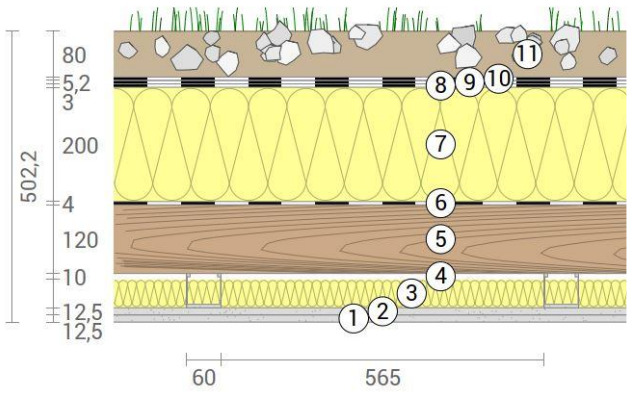
Thermal protection W/(m²K) **0,12**

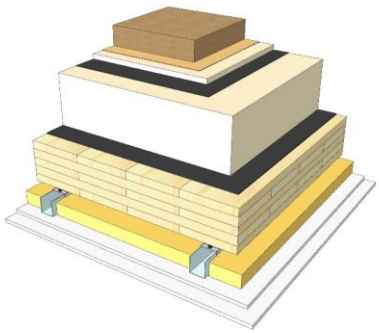
Sound insulation dB **56**

Ecology kg CO2 eq./m² **-45**

DA 05 SC2

Flat roof / EPS / green roof
SC on CD-profiles, resilient clips





No	mm	Material
1	12,5	Gt-F board
2	12,5	Gt-F board
3	50	Rock wool
4	60	CD-profiles on resilient clips
5	120	KLH® - CLT
6	4	Vapour barrier
7	200	Roof panel, EPS
8	3	Roof sealing sheet, 1st layer
9	5	Roof sealing sheet, 2nd layer
10	5	Separating layer
11	80	Green roof system

R*EI (fire attack from below)
90 minutes

U-Value
0,12 W/(m²K)

Rw
62 (-1;-7) dB

Thickness
502 mm

Mass per squaremeter
242 kg/m²

Global warming potential
-43 kg CO_2 eq./m²

Primary energy (n. renewable)
370 kWh/m²

Link Ubakus
DA 05 SC2 Ubakus

Link pre-dimensioning fire
KLH REI 90

Fire resistance R*EI **90**

Thermal protection W/(m²K) **0,12**

Sound insulation dB **62**

Ecology kg CO2 eq./m² **-43**