

DECLARATION OF PERFORMANCE

No PIR-PLUS/2023/1

1. **Unique identification code of the product-type:** PU-PIR-W-PLUS <d_N> <t_{Ne}/t_{Ni}>
2. **Intended use/es:** external walls and wall cladding, walls (including partitions) and ceilings within the building envelope
3. **Manufacturer:** BALEX METAL Sp. z o.o., ul. Wejherowska 12C, 84-239 Bolszewo
4. **System of Assessment and Verification of Constancy of Performance:** 1
5. **Harmonised standard:** EN 14509:2013
6. **Notified body:**
System 1 - Technický a Skúšobný Ústav Stavebný, n. o. (No 1301)
System 3 – Gryfitlab Sp. z o.o. (No 2253), Fires, s.r.o. (No 1396)
7. **Declared Performances:** Tables 1÷12

Steel facing profiling designations:

L – lined; M - micro-profile; 1L – clearline; 2L – double clearline; S – softline; G – plain, R - grooving

Other designations:

d_{Ne} – nominal thickness of the sandwich panel [mm]

t_{Ne} – nominal external facing thickness [mm]

t_{Ni} – nominal internal facing thickness [mm]

AVCP - System of Assessment and Verification of Constancy of Performance

NPD – No Performance Determined

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Chief Executive Officer



Marek Dzikiewicz

Bolszewo, 31.08.2023


BALEXMETAL Sp. z o.o.
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Regon 191112216 (25)

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Table 1: Performances (PIR 40 kg/m³, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,7, t_{Ni} = 0,4)

		Nominal thickness d _N [mm]	60	80	100	120	
Mechanical resistance	Essential characteristics		AVCP	Performances			
	Compressive strength σ_m [MPa]		4	0,14	0,14	0,14	0,14
	Tensile strength f_{ct} [MPa]		4	0,10	0,10	0,10	0,10
	Shear strength f_{cv} [MPa]		4	0,16	0,16	0,16	0,13
	Shear modulus G_c [MPa]		4	3,8	3,7	3,6	3,6
	Creep coefficient φ_t (ceilings)		4	$\varphi_{2000} = 1,05; \varphi_{100000} = 1,43$			
	Shear strength f_{cv} long-term [MPa] (ceilings)		4	0,08	0,08	0,08	0,07
	Wrinkling stress σ_w [MPa] positive		M	4	190	190	190
			L	4	161	160	158
			G, R, S, 1L, 2L	4	83	83	83
	Wrinkling stress σ_w [MPa] positive elevated temperature		M	4	180	180	180
			L	4	153	151	150
			G, R, S, 1L, 2L	4	79	79	79
	Wrinkling stress σ_w [MPa] negative		L	4	178	175	172
			G	4	83	83	83
	Wrinkling stress σ_w over support [MPa] negative		M	4	136	129	122
			L	4	112	110	108
			G, R, S, 1L, 2L	4	58	57	57
	Wrinkling stress σ_w over support [MPa] negative elevated temperature		M	4	129	122	116
			L	4	106	105	103
G, R, S, 1L, 2L			4	55	54	54	
Wrinkling stress σ_w over support [MPa] positive		L	4	136	132	129	
		G	4	64	63	62	
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m ² K)]		4	0,39	0,28	0,22	
	Thermal conductivity coefficient λ_D [W/(mK)]		4	0,022			
Reaction to fire; classification*			1	B-s2,d0			
Fire resistance of walls; classification*			3	NPD	EI 15	EI20	
Flexural tensile strength (ceilings)			4	NPD			
Water permeability; classification			4	NPD			
Air permeability; values n and C			4	NPD			
Water vapour permeability; coefficient μ			4	Pass			
Airborne sound insulation; ratings R_w (C , C_{tr}) [dB]			4	$R_w \geq 25, R_{A1} \geq 23, R_{A2} \geq 21$			
Sound absorption; rating α_w			4	NPD			
Durability	DUR1		4	Pass			
	Resistance to point loads and access loads (ceilings)		4	NPD			
Dangerous substances			3	NPD			

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Table 2: Performances (PIR 40 kg/m³, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,6, t_{Ni} = 0,4)

Nominal thickness d _N [mm]		60	80	100	120		
Mechanical resistance	Essential characteristics	AVCP	Performances				
	Compressive strength σ_m [MPa]	4	0,14	0,14	0,14	0,14	
	Tensile strength f_{ct} [MPa]	4	0,10	0,10	0,10	0,10	
	Shear strength f_{cv} [MPa]	4	0,16	0,16	0,16	0,13	
	Shear modulus G_c [MPa]	4	3,8	3,7	3,6	3,6	
	Creep coefficient φ_t (ceilings)	4	$\varphi_{2000} = 1,05; \varphi_{100000} = 1,43$				
	Shear strength f_{cv} long-term [MPa] (ceilings)	4	0,08	0,08	0,08	0,07	
	Wrinkling stress σ_w [MPa] positive	M	4	212	212	212	212
		L	4	181	179	177	168
		G, R, S, 1L, 2L	4	83	83	83	83
	Wrinkling stress σ_w [MPa] positive elevated temperature	M	4	202	202	202	202
		L	4	171	169	168	160
		G, R, S, 1L, 2L	4	79	79	79	79
	Wrinkling stress σ_w [MPa] negative	L	4	178	175	172	179
		G	4	83	83	83	83
	Wrinkling stress σ_w over support [MPa] negative	M	4	152	144	136	142
		L	4	125	123	121	115
		G, R, S, 1L, 2L	4	58	57	57	57
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	144	137	130	136
		L	4	119	117	115	110
G, R, S, 1L, 2L		4	55	54	54	54	
Wrinkling stress σ_w over support [MPa] positive	L	4	136	132	129	127	
	G	4	64	63	62	59	
Thermal transmittance	Thermal transmittance coefficient U _{d,s} [W/(m ² K)]	4	0,39	0,28	0,22	0,19	
	Thermal conductivity coefficient λ_D [W/(mK)]	4	0,022				
Reaction to fire; classification*		1	B-s2,d0				
Fire resistance of walls; classification*		3	NPD	EI 15	EI20	EI20	
Flexural tensile strength (ceilings)		4	NPD				
Water permeability; classification		4	NPD				
Air permeability; values n and C		4	NPD				
Water vapour permeability; coefficient μ		4	Pass				
Airborne sound insulation; ratings R _w (C, C _{tr}) [dB]		4	R _w ≥25, R _{A1} ≥23, R _{A2} ≥21				
Sound absorption; rating α_w		4	NPD				
Durability	DUR1	4	Pass				
	Resistance to point loads and access loads (ceilings)	4	NPD				
Dangerous substances		3	NPD				

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Table 3: Performances (PIR 40 kg/m³, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,5, t_{Ni} = 0,4)

Nominal thickness d _N [mm]		60	80	100	120		
Mechanical resistance	Essential characteristics	AVCP	Performances				
	Compressive strength $\bar{\sigma}_m$ [MPa]	4	0,14	0,14	0,14	0,14	
	Tensile strength f_{ct} [MPa]	4	0,10	0,10	0,10	0,10	
	Shear strength f_{cv} [MPa]	4	0,16	0,16	0,16	0,13	
	Shear modulus G_c [MPa]	4	3,8	3,7	3,6	3,6	
	Creep coefficient φ_t (ceilings)	4	$\varphi_{2000} = 1,05; \varphi_{100000} = 1,43$				
	Shear strength f_{cv} long-term [MPa] (ceilings)	4	0,08	0,08	0,08	0,07	
	Wrinkling stress $\bar{\sigma}_w$ [MPa] positive	M	4	250	250	250	250
		L	4	215	213	211	201
		G, R, S, 1L, 2L	4	83	83	83	83
	Wrinkling stress $\bar{\sigma}_w$ [MPa] positive elevated temperature	M	4	238	238	238	238
		L	4	204	202	200	191
		G, R, S, 1L, 2L	4	79	79	79	79
	Wrinkling stress $\bar{\sigma}_w$ [MPa] negative	L	4	178	175	172	179
		G	4	83	83	83	83
	Wrinkling stress $\bar{\sigma}_w$ over support [MPa] negative	M	4	179	170	161	168
		L	4	149	147	145	138
		G, R, S, 1L, 2L	4	58	57	57	57
	Wrinkling stress $\bar{\sigma}_w$ over support [MPa] negative elevated temperature	M	4	170	161	153	160
		L	4	142	140	138	131
G, R, S, 1L, 2L		4	55	54	54	54	
Wrinkling stress $\bar{\sigma}_w$ over support [MPa] positive	L	4	136	132	129	127	
	G	4	64	63	62	59	
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m ² K)]	4	0,39	0,28	0,22	0,19	
	Thermal conductivity coefficient λ_D [W/(mK)]	4	0,022				
Reaction to fire; classification*		1	B-s2,d0				
Fire resistance of walls; classification*		3	NPD	EI 15	EI20	EI20	
Flexural tensile strength (ceilings)		4	NPD				
Water permeability; classification		4	NPD				
Air permeability; values n and C		4	NPD				
Water vapour permeability; coefficient μ		4	Pass				
Airborne sound insulation; ratings R_w (C , C_{tr}) [dB]		4	$R_w \geq 25, R_{A1} \geq 23, R_{A2} \geq 21$				
Sound absorption; rating α_w		4	NPD				
Durability	DUR1	4	Pass				
	Resistance to point loads and access loads (ceilings)	4	NPD				
Dangerous substances		3	NPD				

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Table 4: Performances (PIR 40 kg/m³, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,7, t_{Ni} = 0,5)

Nominal thickness d _N [mm]		60	80	100	120		
Mechanical resistance	Essential characteristics	AVCP	Performances				
	Compressive strength σ_m [MPa]	4	0,14	0,14	0,14	0,14	
	Tensile strength f_{ct} [MPa]	4	0,10	0,10	0,10	0,10	
	Shear strength f_{cv} [MPa]	4	0,16	0,16	0,16	0,13	
	Shear modulus G_C [MPa]	4	3,8	3,7	3,6	3,6	
	Creep coefficient φ_t (ceilings)	4	$\varphi_{2000} = 1,05; \varphi_{100000} = 1,43$				
	Shear strength f_{cv} long-term [MPa] (ceilings)	4	0,08	0,08	0,08	0,07	
	Wrinkling stress σ_w [MPa] positive	M	4	190	190	190	190
		L	4	161	160	158	150
		G, R, S, 1L, 2L	4	83	83	83	83
	Wrinkling stress σ_w [MPa] positive elevated temperature	M	4	180	180	180	180
		L	4	153	151	150	143
		G, R, S, 1L, 2L	4	79	79	79	79
	Wrinkling stress σ_w [MPa] negative	L	4	153	150	147	153
		G	4	83	83	83	83
	Wrinkling stress σ_w over support [MPa] negative	M	4	136	129	122	127
		L	4	112	110	108	103
		G, R, S, 1L, 2L	4	58	57	57	57
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	129	122	116	121
		L	4	106	105	103	98
G, R, S, 1L, 2L		4	55	54	54	54	
Wrinkling stress σ_w over support [MPa] positive	L	4	117	114	110	109	
	G	4	64	63	62	59	
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m ² K)]	4	0,39	0,28	0,22	0,19	
	Thermal conductivity coefficient λ_D [W/(mK)]	4	0,022				
Reaction to fire; classification*		1	B-s2,d0				
Fire resistance of walls; classification*		3	NPD	EI 15	EI20	EI20	
Flexural tensile strength (ceilings)		4	NPD				
Water permeability; classification		4	NPD				
Air permeability; values n and C		4	NPD				
Water vapour permeability; coefficient μ		4	Pass				
Airborne sound insulation; ratings R_w (C , C_{tr}) [dB]		4	$R_w \geq 25, R_{A1} \geq 23, R_{A2} \geq 21$				
Sound absorption; rating α_w		4	NPD				
Durability	DUR1	4	Pass				
	Resistance to point loads and access loads (ceilings)	4	NPD				
Dangerous substances		3	NPD				

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Table 5: Performances (PIR 40 kg/m³, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,6, t_{Ni} = 0,5)

Nominal thickness d _N [mm]		60	80	100	120		
Mechanical resistance	Essential characteristics	AVCP	Performances				
	Compressive strength σ_m [MPa]	4	0,14	0,14	0,14	0,14	
	Tensile strength f_{ct} [MPa]	4	0,10	0,10	0,10	0,10	
	Shear strength f_{cv} [MPa]	4	0,16	0,16	0,16	0,13	
	Shear modulus G_c [MPa]	4	3,8	3,7	3,6	3,6	
	Creep coefficient φ_t (ceilings)	4	$\varphi_{2000} = 1,05; \varphi_{100000} = 1,43$				
	Shear strength f_{cv} long-term [MPa] (ceilings)	4	0,08	0,08	0,08	0,07	
	Wrinkling stress σ_w [MPa] positive	M	4	212	212	212	212
		L	4	181	179	177	168
		G, R, S, 1L, 2L	4	83	83	83	83
	Wrinkling stress σ_w [MPa] positive elevated temperature	M	4	202	202	202	202
		L	4	171	169	168	160
		G, R, S, 1L, 2L	4	79	79	79	79
	Wrinkling stress σ_w [MPa] negative	L	4	153	150	147	153
		G	4	83	83	83	83
	Wrinkling stress σ_w over support [MPa] negative	M	4	152	144	136	142
		L	4	125	123	121	115
		G, R, S, 1L, 2L	4	58	57	57	57
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	144	137	130	136
		L	4	119	117	115	110
G, R, S, 1L, 2L		4	55	54	54	54	
Wrinkling stress σ_w over support [MPa] positive	L	4	117	114	110	109	
	G	4	64	63	62	59	
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m ² K)]	4	0,39	0,28	0,22	0,19	
	Thermal conductivity coefficient λ_D [W/(mK)]	4	0,022				
Reaction to fire; classification*		1	B-s2,d0				
Fire resistance of walls; classification*		3	NPD	EI 15	EI20	EI20	
Flexural tensile strength (ceilings)		4	NPD				
Water permeability; classification		4	NPD				
Air permeability; values n and C		4	NPD				
Water vapour permeability; coefficient μ		4	Pass				
Airborne sound insulation; ratings R_w (C , C_{tr}) [dB]		4	$R_w \geq 25, R_{A1} \geq 23, R_{A2} \geq 21$				
Sound absorption; rating α_w		4	NPD				
Durability	DUR1	4	Pass				
	Resistance to point loads and access loads (ceilings)	4	NPD				
Dangerous substances		3	NPD				

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Table 6: Performances (PIR 40 kg/m³, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,5, t_{Ni} = 0,5)

Nominal thickness d _N [mm]		60	80	100	120		
Mechanical resistance	Essential characteristics	AVCP	Performances				
	Compressive strength $\bar{\sigma}_m$ [MPa]	4	0,14	0,14	0,14	0,14	
	Tensile strength f_{ct} [MPa]	4	0,10	0,10	0,10	0,10	
	Shear strength f_{cv} [MPa]	4	0,16	0,16	0,16	0,13	
	Shear modulus G_c [MPa]	4	3,8	3,7	3,6	3,6	
	Creep coefficient φ_t (ceilings)	4	$\varphi_{2000} = 1,05; \varphi_{100000} = 1,43$				
	Shear strength f_{cv} long-term [MPa] (ceilings)	4	0,08	0,08	0,08	0,07	
	Wrinkling stress $\bar{\sigma}_w$ [MPa] positive	M	4	250	250	250	250
		L	4	215	213	211	201
		G, R, S, 1L, 2L	4	83	83	83	83
	Wrinkling stress $\bar{\sigma}_w$ [MPa] positive elevated temperature	M	4	238	238	238	238
		L	4	204	202	200	191
		G, R, S, 1L, 2L	4	79	79	79	79
	Wrinkling stress $\bar{\sigma}_w$ [MPa] negative	L	4	153	150	147	153
		G	4	83	83	83	83
	Wrinkling stress $\bar{\sigma}_w$ over support [MPa] negative	M	4	179	170	161	168
		L	4	149	147	145	138
		G, R, S, 1L, 2L	4	58	57	57	57
	Wrinkling stress $\bar{\sigma}_w$ over support [MPa] negative elevated temperature	M	4	170	161	153	160
		L	4	142	140	138	131
G, R, S, 1L, 2L		4	55	54	54	54	
Wrinkling stress $\bar{\sigma}_w$ over support [MPa] positive	L	4	117	114	110	109	
	G	4	64	63	62	59	
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m ² K)]	4	0,39	0,28	0,22	0,19	
	Thermal conductivity coefficient λ_D [W/(mK)]	4	0,022				
Reaction to fire; classification*		1	B-s2,d0				
Fire resistance of walls; classification*		3	NPD	EI 15	EI20	EI20	
Flexural tensile strength (ceilings)		4	NPD				
Water permeability; classification		4	NPD				
Air permeability; values n and C		4	NPD				
Water vapour permeability; coefficient μ		4	Pass				
Airborne sound insulation; ratings R_w (C , C_{tr}) [dB]		4	$R_w \geq 25, R_{A1} \geq 23, R_{A2} \geq 21$				
Sound absorption; rating α_w		4	NPD				
Durability	DUR1	4	Pass				
	Resistance to point loads and access loads (ceilings)	4	NPD				
Dangerous substances		3	NPD				

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Table 7: Performances (PIR 40 kg/m³, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,7, t_{Ni} = 0,6)

Nominal thickness d _N [mm]		60	80	100	120		
Mechanical resistance	Essential characteristics	AVCP	Performances				
	Compressive strength σ_m [MPa]	4	0,14	0,14	0,14	0,14	
	Tensile strength f_{ct} [MPa]	4	0,10	0,10	0,10	0,10	
	Shear strength f_{cv} [MPa]	4	0,16	0,16	0,16	0,13	
	Shear modulus G_c [MPa]	4	3,8	3,7	3,6	3,6	
	Creep coefficient φ_t (ceilings)	4	$\varphi_{2000} = 1,05; \varphi_{100000} = 1,43$				
	Shear strength f_{cv} long-term [MPa] (ceilings)	4	0,08	0,08	0,08	0,07	
	Wrinkling stress σ_w [MPa] positive	M	4	190	190	190	190
		L	4	161	160	158	150
		G, R, S, 1L, 2L	4	83	83	83	83
	Wrinkling stress σ_w [MPa] positive elevated temperature	M	4	180	180	180	180
		L	4	153	151	150	143
		G, R, S, 1L, 2L	4	79	79	79	79
	Wrinkling stress σ_w [MPa] negative	L	4	135	133	130	136
		G	4	83	83	83	83
	Wrinkling stress σ_w over support [MPa] negative	M	4	136	129	122	127
		L	4	112	110	108	103
		G, R, S, 1L, 2L	4	58	57	57	57
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	129	122	116	121
		L	4	106	105	103	98
G, R, S, 1L, 2L		4	55	54	54	54	
Wrinkling stress σ_w over support [MPa] positive	L	4	103	100	98	96	
	G	4	64	63	62	59	
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m ² K)]	4	0,39	0,28	0,22	0,19	
	Thermal conductivity coefficient λ_D [W/(mK)]	4	0,022				
Reaction to fire; classification*		1	B-s2,d0				
Fire resistance of walls; classification*		3	NPD	EI 15	EI20	EI20	
Flexural tensile strength (ceilings)		4	NPD				
Water permeability; classification		4	NPD				
Air permeability; values n and C		4	NPD				
Water vapour permeability; coefficient μ		4	Pass				
Airborne sound insulation; ratings R_w (C , C_{tr}) [dB]		4	$R_w \geq 25, R_{A1} \geq 23, R_{A2} \geq 21$				
Sound absorption; rating α_w		4	NPD				
Durability	DUR1	4	Pass				
	Resistance to point loads and access loads (ceilings)	4	NPD				
Dangerous substances		3	NPD				

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Table 8: Performances (PIR 40 kg/m³, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,6, t_{Ni} = 0,6)

Nominal thickness d _N [mm]		60	80	100	120		
Mechanical resistance	Essential characteristics	AVCP	Performances				
	Compressive strength $\bar{\sigma}_m$ [MPa]	4	0,14	0,14	0,14	0,14	
	Tensile strength f_{ct} [MPa]	4	0,10	0,10	0,10	0,10	
	Shear strength f_{cv} [MPa]	4	0,16	0,16	0,16	0,13	
	Shear modulus G_c [MPa]	4	3,8	3,7	3,6	3,6	
	Creep coefficient φ_t (ceilings)	4	$\varphi_{2000} = 1,05; \varphi_{100000} = 1,43$				
	Shear strength f_{cv} long-term [MPa] (ceilings)	4	0,08	0,08	0,08	0,07	
	Wrinkling stress $\bar{\sigma}_w$ [MPa] positive	M	4	212	212	212	212
		L	4	181	179	177	168
		G, R, S, 1L, 2L	4	83	83	83	83
	Wrinkling stress $\bar{\sigma}_w$ [MPa] positive elevated temperature	M	4	202	202	202	202
		L	4	171	169	168	160
		G, R, S, 1L, 2L	4	79	79	79	79
	Wrinkling stress $\bar{\sigma}_w$ [MPa] negative	L	4	135	133	130	136
		G	4	83	83	83	83
	Wrinkling stress $\bar{\sigma}_w$ over support [MPa] negative	M	4	152	144	136	142
		L	4	125	123	121	115
		G, R, S, 1L, 2L	4	58	57	57	57
	Wrinkling stress $\bar{\sigma}_w$ over support [MPa] negative elevated temperature	M	4	144	137	130	136
		L	4	119	117	115	110
G, R, S, 1L, 2L		4	55	54	54	54	
Wrinkling stress $\bar{\sigma}_w$ over support [MPa] positive	L	4	103	100	98	96	
	G	4	64	63	62	59	
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m ² K)]	4	0,39	0,28	0,22	0,19	
	Thermal conductivity coefficient λ_D [W/(mK)]	4	0,022				
Reaction to fire; classification*		1	B-s2,d0				
Fire resistance of walls; classification*		3	NPD	EI 15	EI20	EI20	
Flexural tensile strength (ceilings)		4	NPD				
Water permeability; classification		4	NPD				
Air permeability; values <i>n</i> and <i>C</i>		4	NPD				
Water vapour permeability; coefficient μ		4	Pass				
Airborne sound insulation; ratings R_w (C, C _{tr}) [dB]		4	$R_w \geq 25, R_{A1} \geq 23, R_{A2} \geq 21$				
Sound absorption; rating α_w		4	NPD				
Durability	DUR1	4	Pass				
	Resistance to point loads and access loads (ceilings)	4	NPD				
Dangerous substances		3	NPD				

*- valid under the conditions specified in the classification report

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Table 9: Performances (PIR 40 kg/m³, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,5, t_{Ni} = 0,6)

		Nominal thickness d _N [mm]	60	80	100	120	
Mechanical resistance	Essential characteristics		AVCP	Performances			
	Compressive strength σ_m [MPa]		4	0,14	0,14	0,14	0,14
	Tensile strength f_{ct} [MPa]		4	0,10	0,10	0,10	0,10
	Shear strength f_{cv} [MPa]		4	0,16	0,16	0,16	0,13
	Shear modulus G_c [MPa]		4	3,8	3,7	3,6	3,6
	Creep coefficient φ_t (ceilings)		4	$\varphi_{2000} = 1,05; \varphi_{100000} = 1,43$			
	Shear strength f_{cv} long-term [MPa] (ceilings)		4	0,08	0,08	0,08	0,07
	Wrinkling stress σ_w [MPa] positive		M	4	250	250	250
			L	4	215	213	211
			G, R, S, 1L, 2L	4	83	83	83
	Wrinkling stress σ_w [MPa] positive elevated temperature		M	4	238	238	238
			L	4	204	202	200
			G, R, S, 1L, 2L	4	79	79	79
	Wrinkling stress σ_w [MPa] negative		L	4	135	133	130
			G	4	83	83	83
	Wrinkling stress σ_w over support [MPa] negative		M	4	179	170	161
			L	4	149	147	145
			G, R, S, 1L, 2L	4	58	57	57
	Wrinkling stress σ_w over support [MPa] negative elevated temperature		M	4	170	161	153
			L	4	142	140	138
G, R, S, 1L, 2L			4	55	54	54	
Wrinkling stress σ_w over support [MPa] positive		L	4	103	100	98	
		G	4	64	63	62	
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m ² K)]		4	0,39	0,28	0,22	
	Thermal conductivity coefficient λ_D [W/(mK)]		4	0,022			
Reaction to fire; classification*		1	B-s2,d0				
Fire resistance of walls; classification*		3	NPD	EI 15	EI20	EI20	
Flexural tensile strength (ceilings)		4	NPD				
Water permeability; classification		4	NPD				
Air permeability; values n and C		4	NPD				
Water vapour permeability; coefficient μ		4	Pass				
Airborne sound insulation; ratings R_w (C , C_{tr}) [dB]		4	$R_w \geq 25, R_{A1} \geq 23, R_{A2} \geq 21$				
Sound absorption; rating α_w		4	NPD				
Durability	DUR1		4	Pass			
	Resistance to point loads and access loads (ceilings)		4	NPD			
Dangerous substances		3	NPD				

*- valid under the conditions specified in the classification report

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Table 10: Performances (PIR 40 kg/m³, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,7, t_{Ni} = 0,7)

Nominal thickness d _N [mm]		60	80	100	120		
Mechanical resistance	Essential characteristics	AVCP	Performances				
	Compressive strength σ_m [MPa]	4	0,14	0,14	0,14	0,14	
	Tensile strength f_{ct} [MPa]	4	0,10	0,10	0,10	0,10	
	Shear strength f_{cv} [MPa]	4	0,16	0,16	0,16	0,13	
	Shear modulus G_c [MPa]	4	3,8	3,7	3,6	3,6	
	Creep coefficient ϕ_t (ceilings)	4	$\phi_{2000} = 1,05; \phi_{100000} = 1,43$				
	Shear strength f_{cv} long-term [MPa] (ceilings)	4	0,08	0,08	0,08	0,07	
	Wrinkling stress σ_w [MPa] positive	M	4	190	190	190	190
		L	4	161	160	158	150
		G, R, S, 1L, 2L	4	83	83	83	83
	Wrinkling stress σ_w [MPa] positive elevated temperature	M	4	180	180	180	180
		L	4	153	151	150	143
		G, R, S, 1L, 2L	4	79	79	79	79
	Wrinkling stress σ_w [MPa] negative	L	4	121	119	116	121
		G	4	83	83	83	83
	Wrinkling stress σ_w over support [MPa] negative	M	4	136	129	122	127
		L	4	112	110	108	103
		G, R, S, 1L, 2L	4	58	57	57	57
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	129	122	116	121
		L	4	106	105	103	98
G, R, S, 1L, 2L		4	55	54	54	54	
Wrinkling stress σ_w over support [MPa] positive	L	4	92	90	87	86	
	G	4	64	63	62	59	
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m ² K)]	4	0,39	0,28	0,22	0,19	
	Thermal conductivity coefficient λ_D [W/(mK)]	4	0,022				
Reaction to fire; classification*		1	B-s2,d0				
Fire resistance of walls; classification*		3	NPD	EI 15	EI20	EI20	
Flexural tensile strength (ceilings)		4	NPD				
Water permeability; classification		4	NPD				
Air permeability; values n and C		4	NPD				
Water vapour permeability; coefficient μ		4	Pass				
Airborne sound insulation; ratings R_w (C , C_{tr}) [dB]		4	$R_w \geq 25, R_{A1} \geq 23, R_{A2} \geq 21$				
Sound absorption; rating α_w		4	NPD				
Durability	DUR1	4	Pass				
	Resistance to point loads and access loads (ceilings)	4	NPD				
Dangerous substances		3	NPD				

*- valid under the conditions specified in the classification report

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Table 11: Performances (PIR 40 kg/m³, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,6, t_{Ni} = 0,7)

Nominal thickness d _N [mm]		60	80	100	120		
Mechanical resistance	Essential characteristics	AVCP	Performances				
	Compressive strength σ_m [MPa]	4	0,14	0,14	0,14	0,14	
	Tensile strength f_{ct} [MPa]	4	0,10	0,10	0,10	0,10	
	Shear strength f_{cv} [MPa]	4	0,16	0,16	0,16	0,13	
	Shear modulus G_c [MPa]	4	3,8	3,7	3,6	3,6	
	Creep coefficient φ_t (ceilings)	4	$\varphi_{2000} = 1,05; \varphi_{100000} = 1,43$				
	Shear strength f_{cv} long-term [MPa] (ceilings)	4	0,08	0,08	0,08	0,07	
	Wrinkling stress σ_w [MPa] positive	M	4	212	212	212	212
		L	4	181	179	177	168
		G, R, S, 1L, 2L	4	83	83	83	83
	Wrinkling stress σ_w [MPa] positive elevated temperature	M	4	202	202	202	202
		L	4	171	169	168	160
		G, R, S, 1L, 2L	4	79	79	79	79
	Wrinkling stress σ_w [MPa] negative	L	4	121	119	116	121
		G	4	83	83	83	83
	Wrinkling stress σ_w over support [MPa] negative	M	4	152	144	136	142
		L	4	125	123	121	115
		G, R, S, 1L, 2L	4	58	57	57	57
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	144	137	130	136
		L	4	119	117	115	110
G, R, S, 1L, 2L		4	55	54	54	54	
Wrinkling stress σ_w over support [MPa] positive	L	4	92	90	87	86	
	G	4	64	63	62	59	
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m ² K)]	4	0,39	0,28	0,22	0,19	
	Thermal conductivity coefficient λ_D [W/(mK)]	4	0,022				
Reaction to fire; classification*		1	B-s2,d0				
Fire resistance of walls; classification*		3	NPD	EI 15	EI20	EI20	
Flexural tensile strength (ceilings)		4	NPD				
Water permeability; classification		4	NPD				
Air permeability; values n and C		4	NPD				
Water vapour permeability; coefficient μ		4	Pass				
Airborne sound insulation; ratings R_w (C , C_{tr}) [dB]		4	$R_w \geq 25, R_{A1} \geq 23, R_{A2} \geq 21$				
Sound absorption; rating α_w		4	NPD				
Durability	DUR1	4	Pass				
	Resistance to point loads and access loads (ceilings)	4	NPD				
Dangerous substances		3	NPD				

*- valid under the conditions specified in the classification report

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Table 12: Performances (PIR 40 kg/m³, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,5, t_{Ni} = 0,7)

Nominal thickness d _N [mm]		60	80	100	120		
Mechanical resistance	Essential characteristics	AVCP	Performances				
	Compressive strength σ_m [MPa]	4	0,14	0,14	0,14	0,14	
	Tensile strength f_{ct} [MPa]	4	0,10	0,10	0,10	0,10	
	Shear strength f_{cv} [MPa]	4	0,16	0,16	0,16	0,13	
	Shear modulus G_c [MPa]	4	3,8	3,7	3,6	3,6	
	Creep coefficient φ_t (ceilings)	4	$\varphi_{2000} = 1,05; \varphi_{100000} = 1,43$				
	Shear strength f_{cv} long-term [MPa] (ceilings)	4	0,08	0,08	0,08	0,07	
	Wrinkling stress σ_w [MPa] positive	M	4	250	250	250	250
		L	4	215	213	211	201
		G, R, S, 1L, 2L	4	83	83	83	83
	Wrinkling stress σ_w [MPa] positive elevated temperature	M	4	238	238	238	238
		L	4	204	202	200	191
		G, R, S, 1L, 2L	4	79	79	79	79
	Wrinkling stress σ_w [MPa] negative	L	4	121	119	116	121
		G	4	83	83	83	83
	Wrinkling stress σ_w over support [MPa] negative	M	4	179	170	161	168
		L	4	149	147	145	138
		G, R, S, 1L, 2L	4	58	57	57	57
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	170	161	153	160
		L	4	142	140	138	131
G, R, S, 1L, 2L		4	55	54	54	54	
Wrinkling stress σ_w over support [MPa] positive	L	4	92	90	87	86	
	G	4	64	63	62	59	
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m ² K)]	4	0,39	0,28	0,22	0,19	
	Thermal conductivity coefficient λ_D [W/(mK)]	4	0,022				
Reaction to fire; classification*		1	B-s2,d0				
Fire resistance of walls; classification*		3	NPD	EI 15	EI20	EI20	
Flexural tensile strength (ceilings)		4	NPD				
Water permeability; classification		4	NPD				
Air permeability; values n and C		4	NPD				
Water vapour permeability; coefficient μ		4	Pass				
Airborne sound insulation; ratings R_w (C, C _{tr}) [dB]		4	$R_w \geq 25, R_{A1} \geq 23, R_{A2} \geq 21$				
Sound absorption; rating α_w		4	NPD				
Durability	DUR1	4	Pass				
	Resistance to point loads and access loads (ceilings)	4	NPD				
Dangerous substances		3	NPD				

*- valid under the conditions specified in the classification report

