DECLARATION OF PERFORMANCE

No PIR-W-ST/2023/1

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1. **Unique identification code of the product-type:** PU-PIR-W-ST <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 – 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; G – plain

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

BALEX METAL Sp. z o.o.
84-239 Bolszewo, ul. Wejherowska 12C
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NIP 588-11-30-298
P-191112216

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No PIR-W-ST/2023/1

Table 1: Performances (PIR 40 kg/m^3, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,7, t_{Ni} = 0,4)

Nominal thickness d_N [mm]				40	50	60	80	100	110	120	130
	Essential characteristics		AVCP	**Performances**							
Mechanical resistance	Compressive strength σ_m [MPa]		4	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13
	Tensile strength f_{Ct} [MPa]		4	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08
	Shear strength f_{Cv} [MPa]		4	0,14	0,13	0,13	0,12	0,12	0,12	0,12	0,11
	Shear modulus G_C [MPa]		4	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,4
	Creep coefficient φ_t (ceilings)		4	φ_{2000} = 1,05; φ_{100000} = 1,43							
	Shear strength f_{Cv} long-term [MPa] (ceilings)		4	0,08	0,08	0,08	0,08	0,08	0,07	0,07	0,06
	Wrinkling stress σ_w [MPa] positive	M	4	190	190	190	190	190	190	190	189
		L	4	163	162	161	160	158	154	150	151
		G, 1L, 2L	4	84	83	83	83	83	83	83	82
	Wrinkling stress σw [MPa] positive elevated temperature	M	4	180	180	180	180	180	180	180	180
		L	4	155	154	153	151	150	146	143	144
		G, 1L, 2L	4	80	79	79	79	79	79	79	78
	Wrinkling stress σ_w [MPa] negative	L	4	182	180	178	175	172	175	179	174
		G	4	84	83	83	83	83	83	83	82
	Wrinkling stress σ_w over support [MPa] negative	M	4	142	139	136	129	122	125	127	127
		L	4	114	113	112	110	108	106	103	102
		G, 1L, 2L	4	59	58	58	57	57	57	57	55
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	136	132	129	122	116	118	121	121
		L	4	108	107	106	105	103	100	98	97
		G, 1L, 2L	4	56	55	55	54	54	54	54	52
	Wrinkling stress σ_w over support [MPa] positive	L	4	140	138	136	132	129	128	127	125
		G	4	65	64	64	63	62	60	59	58
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m^{2}K)]		4	0,59	0,45	0,36	0,27	0,22	0,20	0,19	0,17
	Thermal conductivity coefficient λ_D [W/(mK)]		4	0,022							
Reaction to fire; classification*			1	B-s2,d0				B-s1,d0			
Fire resistance of walls; classification*			3	NPD			EI15		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

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]				40	50	60	80	100	110	120	130
	Essential characteristics		AVCP	**Performances**							
Mechanical resistance	Compressive strength σ_m [MPa]		4	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13
	Tensile strength f_{Ct} [MPa]		4	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08
	Shear strength f_{Cv} [MPa]		4	0,14	0,13	0,13	0,12	0,12	0,12	0,12	0,11
	Shear modulus G_C [MPa]		4	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,4
	Creep coefficient φ_t (ceilings)		4	φ_{2000} = 1,05; φ_{100000} = 1,43							
	Shear strength f_{Cv} long-term [MPa] (ceilings)		4	0,08	0,08	0,08	0,08	0,08	0,07	0,07	0,06
	Wrinkling stress σ_w [MPa] positive	M	4	212	212	212	212	212	212	212	212
		L	4	183	182	181	179	177	173	168	169
		G, 1L, 2L	4	84	83	83	83	83	83	83	82
	Wrinkling stress σw [MPa] positive elevated temperature	M	4	202	202	202	202	202	202	202	202
		L	4	173	172	171	169	168	164	160	161
		G, 1L, 2L	4	80	79	79	79	79	79	79	78
	Wrinkling stress σ_w [MPa] negative	L	4	182	180	178	175	172	175	179	174
		G	4	84	83	83	83	83	83	83	82
	Wrinkling stress σ_w over support [MPa] negative	M	4	159	155	152	144	136	139	142	142
		L	4	127	126	125	123	121	118	115	115
		G, 1L, 2L	4	59	58	58	57	57	57	57	55
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	152	148	144	137	130	133	136	135
		L	4	120	120	119	117	115	112	110	109
		G, 1L, 2L	4	56	55	55	54	54	54	54	52
	Wrinkling stress σ_w over support [MPa] positive	L	4	140	138	136	132	129	128	127	125
		G	4	65	64	64	63	62	60	59	58
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m²K)]		4	0,59	0,45	0,36	0,27	0,22	0,20	0,19	0,17
	Thermal conductivity coefficient λ_D [W/(mK)]		4	0,022							
Reaction to fire; classification*			1	B-s2,d0				B-s1,d0			
Fire resistance of walls; classification*			3	NPD			EI15		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 3: Performances (PIR 40 kg/m^3, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,5, t_{Ni} = 0,4)

Nominal thickness d_N [mm]				40	50	60	80	100	110	120	130
	Essential characteristics		AVCP	**Performances**							
Mechanical resistance	Compressive strength σ_m [MPa]		4	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13
	Tensile strength f_{Ct} [MPa]		4	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08
	Shear strength f_{Cv} [MPa]		4	0,14	0,13	0,13	0,12	0,12	0,12	0,12	0,11
	Shear modulus G_C [MPa]		4	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,4
	Creep coefficient φ_t (ceilings)		4	φ_{2000} = 1,05; φ_{100000} = 1,43							
	Shear strength f_{Cv} long-term [MPa] (ceilings)		4	0,08	0,08	0,08	0,08	0,08	0,07	0,07	0,06
	Wrinkling stress σ_w [MPa] positive	M	4	250	250	250	250	250	250	250	249
		L	4	218	216	215	213	211	206	201	202
		G, 1L, 2L	4	84	83	83	83	83	83	83	82
	Wrinkling stress σw [MPa] positive elevated temperature	M	4	238	238	238	238	238	238	238	237
		L	4	207	205	204	202	200	195	191	192
		G, 1L, 2L	4	80	79	79	79	79	79	79	78
	Wrinkling stress σ_w [MPa] negative	L	4	182	180	178	175	172	175	179	174
		G	4	84	83	83	83	83	83	83	82
	Wrinkling stress σ_w over support [MPa] negative	M	4	188	183	179	170	161	164	168	167
		L	4	152	150	149	147	145	141	138	137
		G, 1L, 2L	4	59	58	58	57	57	57	57	55
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	179	174	170	161	153	156	160	159
		L	4	144	143	142	140	138	134	131	130
		G, 1L, 2L	4	56	55	55	54	54	54	54	52
	Wrinkling stress σ_w over support [MPa] positive	L	4	140	138	136	132	129	128	127	125
		G	4	65	64	64	63	62	60	59	58
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m^{2}K)]		4	0,59	0,45	0,36	0,27	0,22	0,20	0,19	0,17
	Thermal conductivity coefficient λ_D [W/(mK)]		4	0,022							
Reaction to fire; classification*			1	B-s2,d0				B-s1,d0			
Fire resistance of walls; classification*			3	NPD			EI15		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/m^3, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,7, t_{Ni} = 0,5)

Nominal thickness d_N [mm]				40	50	60	80	100	110	120	130
Mechanical resistance	**Essential characteristics**		AVCP	**Performances**							
	Compressive strength σ_m [MPa]		4	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13
	Tensile strength f_{Ct} [MPa]		4	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08
	Shear strength f_{cv} [MPa]		4	0,14	0,13	0,13	0,12	0,12	0,12	0,12	0,11
	Shear modulus G_C [MPa]		4	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,4
	Creep coefficient φ_t (ceilings)		4	φ_{2000} = 1,05; φ_{100000} = 1,43							
	Shear strength f_{cv} long-term [MPa] (ceilings)		4	0,08	0,08	0,08	0,08	0,08	0,07	0,07	0,06
	Wrinkling stress σ_w [MPa] positive	M	4	190	190	190	190	190	190	190	189
		L	4	163	162	161	160	158	154	150	151
		G, 1L, 2L	4	84	83	83	83	83	83	83	82
	Wrinkling stress σw [MPa] positive elevated temperature	M	4	180	180	180	180	180	180	180	180
		L	4	155	154	153	151	150	146	143	144
		G, 1L, 2L	4	80	79	79	79	79	79	79	78
	Wrinkling stress σ_w [MPa] negative	L	4	156	155	153	150	147	150	153	150
		G	4	84	83	83	83	83	83	83	82
	Wrinkling stress σ_w over support [MPa] negative	M	4	142	139	136	129	122	125	127	127
		L	4	114	113	112	110	108	106	103	102
		G, 1L, 2L	4	59	58	58	57	57	57	57	55
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	136	132	129	122	116	118	121	121
		L	4	108	107	106	105	103	100	98	97
		G, 1L, 2L	4	56	55	55	54	54	54	54	52
	Wrinkling stress σ_w over support [MPa] positive	L	4	120	118	117	114	110	110	109	107
		G	4	65	64	64	63	62	60	59	58
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m^{2}K)]		4	0,59	0,45	0,36	0,27	0,22	0,20	0,19	0,17
	Thermal conductivity coefficient λ_D [W/(mK)]		4	0,022							
Reaction to fire; classification*			1	B-s2,d0				B-s1,d0			
Fire resistance of walls; classification*			3	NPD			EI15		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/m^3, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,6, t_{Ni} = 0,5)

Nominal thickness d_N [mm]				40	50	60	80	100	110	120	130
	Essential characteristics		AVCP	**Performances**							
Mechanical resistance	Compressive strength σ_m [MPa]		4	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13
	Tensile strength f_{Ct} [MPa]		4	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08
	Shear strength f_{Cv} [MPa]		4	0,14	0,13	0,13	0,12	0,12	0,12	0,12	0,11
	Shear modulus G_C [MPa]		4	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,4
	Creep coefficient φ_t (ceilings)		4	φ_{2000} = 1,05; φ_{100000} = 1,43							
	Shear strength f_{Cv} long-term [MPa] (ceilings)		4	0,08	0,08	0,08	0,08	0,08	0,07	0,07	0,06
	Wrinkling stress σ_w [MPa] positive	M	4	212	212	212	212	212	212	212	212
		L	4	183	182	181	179	177	173	168	169
		G, 1L, 2L	4	84	83	83	83	83	83	83	82
	Wrinkling stress σw [MPa] positive elevated temperature	M	4	202	202	202	202	202	202	202	202
		L	4	173	172	171	169	168	164	160	161
		G, 1L, 2L	4	80	79	79	79	79	79	79	78
	Wrinkling stress σ_w [MPa] negative	L	4	156	155	153	150	147	150	153	150
		G	4	84	83	83	83	83	83	83	82
	Wrinkling stress σ_w over support [MPa] negative	M	4	159	155	152	144	136	139	142	142
		L	4	127	126	125	123	121	118	115	115
		G, 1L, 2L	4	59	58	58	57	57	57	57	55
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	152	148	144	137	130	133	136	135
		L	4	120	120	119	117	115	112	110	109
		G, 1L, 2L	4	56	55	55	54	54	54	54	52
	Wrinkling stress σ_w over support [MPa] positive	L	4	120	118	117	114	110	110	109	107
		G	4	65	64	64	63	62	60	59	58
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m^{2}K)]		4	0,59	0,45	0,36	0,27	0,22	0,20	0,19	0,17
	Thermal conductivity coefficient λ_D [W/(mK)]		4	0,022							
Reaction to fire; classification*			1	B-s2,d0				B-s1,d0			
Fire resistance of walls; classification*			3	NPD			EI15		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							

*- valid under the conditions specified in the classification report

Table 6: Performances (PIR 40 kg/m^3, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,5, t_{Ni} = 0,5)

Nominal thickness d_N [mm]				40	50	60	80	100	110	120	130
	Essential characteristics		AVCP	**Performances**							
Mechanical resistance	Compressive strength σ_m [MPa]		4	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13
	Tensile strength f_{ct} [MPa]		4	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08
	Shear strength f_{cv} [MPa]		4	0,14	0,13	0,13	0,12	0,12	0,12	0,12	0,11
	Shear modulus G_C [MPa]		4	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,4
	Creep coefficient φ_t (ceilings)		4	φ_{2000} = 1,05; φ_{100000} = 1,43							
	Shear strength f_{cv} long-term [MPa] (ceilings)		4	0,08	0,08	0,08	0,08	0,08	0,07	0,07	0,06
	Wrinkling stress σ_w [MPa] positive	M	4	250	250	250	250	250	250	250	249
		L	4	218	216	215	213	211	206	201	202
		G, 1L, 2L	4	84	83	83	83	83	83	83	82
	Wrinkling stress σw [MPa] positive elevated temperature	M	4	238	238	238	238	238	238	238	237
		L	4	207	205	204	202	200	195	191	192
		G, 1L, 2L	4	80	79	79	79	79	79	79	78
	Wrinkling stress σ_w [MPa] negative	L	4	156	155	153	150	147	150	153	150
		G	4	84	83	83	83	83	83	83	82
	Wrinkling stress σ_w over support [MPa] negative	M	4	188	183	179	170	161	164	168	167
		L	4	152	150	149	147	145	141	138	137
		G, 1L, 2L	4	59	58	58	57	57	57	57	55
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	179	174	170	161	153	156	160	159
		L	4	144	143	142	140	138	134	131	130
		G, 1L, 2L	4	56	55	55	54	54	54	54	52
	Wrinkling stress σ_w over support [MPa] positive	L	4	120	118	117	114	110	110	109	107
		G	4	65	64	64	63	62	60	59	58
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m^{2}K)]		4	0,59	0,45	0,36	0,27	0,22	0,20	0,19	0,17
	Thermal conductivity coefficient λ_D [W/(mK)]		4	0,022							
Reaction to fire; classification*			1	B-s2,d0				B-s1,d0			
Fire resistance of walls; classification*			3	NPD			EI15		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

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]				40	50	60	80	100	110	120	130
	Essential characteristics		AVCP	**Performances**							
Mechanical resistance	Compressive strength σ_m [MPa]		4	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13
	Tensile strength f_{Ct} [MPa]		4	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08
	Shear strength f_{Cv} [MPa]		4	0,14	0,13	0,13	0,12	0,12	0,12	0,12	0,11
	Shear modulus G_C [MPa]		4	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,4
	Creep coefficient φ_t (ceilings)		4	φ_{2000} = 1,05; φ_{100000} = 1,43							
	Shear strength f_{Cv} long-term [MPa] (ceilings)		4	0,08	0,08	0,08	0,08	0,08	0,07	0,07	0,06
	Wrinkling stress σ_w [MPa] positive	M	4	190	190	190	190	190	190	190	189
		L	4	163	162	161	160	158	154	150	151
		G, 1L, 2L	4	84	83	83	83	83	83	83	82
	Wrinkling stress σw [MPa] positive elevated temperature	M	4	180	180	180	180	180	180	180	180
		L	4	155	154	153	151	150	146	143	144
		G, 1L, 2L	4	80	79	79	79	79	79	79	78
	Wrinkling stress σ_w [MPa] negative	L	4	138	137	135	133	130	133	136	132
		G	4	84	83	83	83	83	83	83	82
	Wrinkling stress σ_w over support [MPa] negative	M	4	142	139	136	129	122	125	127	127
		L	4	114	113	112	110	108	106	103	102
		G, 1L, 2L	4	59	58	58	57	57	57	57	55
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	136	132	129	122	116	118	121	121
		L	4	108	107	106	105	103	100	98	97
		G, 1L, 2L	4	56	55	55	54	54	54	54	52
	Wrinkling stress σ_w over support [MPa] positive	L	4	106	105	103	100	98	97	96	95
		G	4	65	64	64	63	62	60	59	58
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m²K)]		4	0,59	0,45	0,36	0,27	0,22	0,20	0,19	0,17
	Thermal conductivity coefficient λ_D [W/(mK)]		4	0,022							
Reaction to fire; classification*			1	B-s2,d0				B-s1,d0			
Fire resistance of walls; classification*			3	NPD			EI15		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

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]				40	50	60	80	100	110	120	130
	Essential characteristics		AVCP	**Performances**							
Mechanical resistance	Compressive strength σ_m [MPa]		4	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13
	Tensile strength f_{ct} [MPa]		4	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08
	Shear strength f_{cv} [MPa]		4	0,14	0,13	0,13	0,12	0,12	0,12	0,12	0,11
	Shear modulus G_C [MPa]		4	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,4
	Creep coefficient φ_t (ceilings)		4	φ_{2000} = 1,05; φ_{100000} = 1,43							
	Shear strength f_{cv} long-term [MPa] (ceilings)		4	0,08	0,08	0,08	0,08	0,08	0,07	0,07	0,06
	Wrinkling stress σ_w [MPa] positive	M	4	212	212	212	212	212	212	212	212
		L	4	183	182	181	179	177	173	168	169
		G, 1L, 2L	4	84	83	83	83	83	83	83	82
	Wrinkling stress σw [MPa] positive elevated temperature	M	4	202	202	202	202	202	202	202	202
		L	4	173	172	171	169	168	164	160	161
		G, 1L, 2L	4	80	79	79	79	79	79	79	78
	Wrinkling stress σ_w [MPa] negative	L	4	138	137	135	133	130	133	136	132
		G	4	84	83	83	83	83	83	83	82
	Wrinkling stress σ_w over support [MPa] negative	M	4	159	155	152	144	136	139	142	142
		L	4	127	126	125	123	121	118	115	115
		G, 1L, 2L	4	59	58	58	57	57	57	57	55
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	152	148	144	137	130	133	136	135
		L	4	120	120	119	117	115	112	110	109
		G, 1L, 2L	4	56	55	55	54	54	54	54	52
	Wrinkling stress σ_w over support [MPa] positive	L	4	106	105	103	100	98	97	96	95
		G	4	65	64	64	63	62	60	59	58
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m²K)]		4	0,59	0,45	0,36	0,27	0,22	0,20	0,19	0,17
	Thermal conductivity coefficient λ_D [W/(mK)]		4	0,022							
Reaction to fire; classification*			1	B-s2,d0				B-s1,d0			
Fire resistance of walls; classification*			3	NPD			EI15		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

Table 9: Performances (PIR 40 kg/m^3, INOX, S250GD + SP15, SP25, SP35, Cesar55, PVC(F) 120, t_{Ne} = 0,5, t_{Ni} = 0,6)

Nominal thickness d_N [mm]				40	50	60	80	100	110	120	130
	Essential characteristics		AVCP	**Performances**							
Mechanical resistance	Compressive strength σ_m [MPa]		4	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13
	Tensile strength f_{ct} [MPa]		4	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08
	Shear strength f_{cv} [MPa]		4	0,14	0,13	0,13	0,12	0,12	0,12	0,12	0,11
	Shear modulus G_C [MPa]		4	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,4
	Creep coefficient φ_t (ceilings)		4	φ_{2000} = 1,05; φ_{100000} = 1,43							
	Shear strength f_{cv} long-term [MPa] (ceilings)		4	0,08	0,08	0,08	0,08	0,08	0,07	0,07	0,06
	Wrinkling stress σ_w [MPa] positive	M	4	250	250	250	250	250	250	250	249
		L	4	218	216	215	213	211	206	201	202
		G, 1L, 2L	4	84	83	83	83	83	83	83	82
	Wrinkling stress σw [MPa] positive elevated temperature	M	4	238	238	238	238	238	238	238	237
		L	4	207	205	204	202	200	195	191	192
		G, 1L, 2L	4	80	79	79	79	79	79	79	78
	Wrinkling stress σ_w [MPa] negative	L	4	138	137	135	133	130	133	136	132
		G	4	84	83	83	83	83	83	83	82
	Wrinkling stress σ_w over support [MPa] negative	M	4	188	183	179	170	161	164	168	167
		L	4	152	150	149	147	145	141	138	137
		G, 1L, 2L	4	59	58	58	57	57	57	57	55
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	179	174	170	161	153	156	160	159
		L	4	144	143	142	140	138	134	131	130
		G, 1L, 2L	4	56	55	55	54	54	54	54	52
	Wrinkling stress σ_w over support [MPa] positive	L	4	106	105	103	100	98	97	96	95
		G	4	65	64	64	63	62	60	59	58
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m^{2}K)]		4	0,59	0,45	0,36	0,27	0,22	0,20	0,19	0,17
	Thermal conductivity coefficient λ_D [W/(mK)]		4	0,022							
Reaction to fire; classification*			1	B-s2,d0				B-s1,d0			
Fire resistance of walls; classification*			3	NPD			EI15		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

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]				40	50	60	80	100	110	120	130
Mechanical resistance	**Essential characteristics**		AVCP	**Performances**							
	Compressive strength σ_m [MPa]		4	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13
	Tensile strength f_{Ct} [MPa]		4	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08
	Shear strength f_{Cv} [MPa]		4	0,14	0,13	0,13	0,12	0,12	0,12	0,12	0,11
	Shear modulus G_C [MPa]		4	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,4
	Creep coefficient φ_t (ceilings)		4	φ_{2000} = 1,05; φ_{100000} = 1,43							
	Shear strength f_{Cv} long-term [MPa] (ceilings)		4	0,08	0,08	0,08	0,08	0,08	0,07	0,07	0,06
	Wrinkling stress σ_w [MPa] positive	M	4	190	190	190	190	190	190	190	189
		L	4	163	162	161	160	158	154	150	151
		G, 1L, 2L	4	84	83	83	83	83	83	83	82
	Wrinkling stress σw [MPa] positive elevated temperature	M	4	180	180	180	180	180	180	180	180
		L	4	155	154	153	151	150	146	143	144
		G, 1L, 2L	4	80	79	79	79	79	79	79	78
	Wrinkling stress σ_w [MPa] negative	L	4	123	122	121	119	116	119	121	118
		G	4	84	83	83	83	83	83	83	82
	Wrinkling stress σ_w over support [MPa] negative	M	4	142	139	136	129	122	125	127	127
		L	4	114	113	112	110	108	106	103	102
		G, 1L, 2L	4	59	58	58	57	57	57	57	55
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	136	132	129	122	116	118	121	121
		L	4	108	107	106	105	103	100	98	97
		G, 1L, 2L	4	56	55	55	54	54	54	54	52
	Wrinkling stress σ_w over support [MPa] positive	L	4	95	93	92	90	87	87	86	85
		G	4	65	64	64	63	62	60	59	58
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m²K)]		4	0,59	0,45	0,36	0,27	0,22	0,20	0,19	0,17
	Thermal conductivity coefficient λ_D [W/(mK)]		4	0,022							
Reaction to fire; classification*			1	B-s2,d0				B-s1,d0			
Fire resistance of walls; classification*			3	NPD			EI15		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

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]				40	50	60	80	100	110	120	130
	Essential characteristics		AVCP	**Performances**							
Mechanical resistance	Compressive strength σ_m [MPa]		4	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13
	Tensile strength f_{ct} [MPa]		4	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08
	Shear strength f_{cv} [MPa]		4	0,14	0,13	0,13	0,12	0,12	0,12	0,12	0,11
	Shear modulus G_C [MPa]		4	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,4
	Creep coefficient φ_t (ceilings)		4	φ_{2000} = 1,05; φ_{100000} = 1,43							
	Shear strength f_{cv} long-term [MPa] (ceilings)		4	0,08	0,08	0,08	0,08	0,08	0,07	0,07	0,06
	Wrinkling stress σ_w [MPa] positive	M	4	212	212	212	212	212	212	212	212
		L	4	183	182	181	179	177	173	168	169
		G, 1L, 2L	4	84	83	83	83	83	83	83	82
	Wrinkling stress σw [MPa] positive elevated temperature	M	4	202	202	202	202	202	202	202	202
		L	4	173	172	171	169	168	164	160	161
		G, 1L, 2L	4	80	79	79	79	79	79	79	78
	Wrinkling stress σ_w [MPa] negative	L	4	123	122	121	119	116	119	121	118
		G	4	84	83	83	83	83	83	83	82
	Wrinkling stress σ_w over support [MPa] negative	M	4	159	155	152	144	136	139	142	142
		L	4	127	126	125	123	121	118	115	115
		G, 1L, 2L	4	59	58	58	57	57	57	57	55
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	152	148	144	137	130	133	136	135
		L	4	120	120	119	117	115	112	110	109
		G, 1L, 2L	4	56	55	55	54	54	54	54	52
	Wrinkling stress σ_w over support [MPa] positive	L	4	95	93	92	90	87	87	86	85
		G	4	65	64	64	63	62	60	59	58
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m²K)]		4	0,59	0,45	0,36	0,27	0,22	0,20	0,19	0,17
	Thermal conductivity coefficient λ_D [W/(mK)]		4	0,022							
Reaction to fire; classification*			1	B-s2,d0				B-s1,d0			
Fire resistance of walls; classification*			3	NPD			EI15		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

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]				40	50	60	80	100	110	120	130
Mechanical resistance	**Essential characteristics**		AVCP	**Performances**							
	Compressive strength σ_m [MPa]		4	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13
	Tensile strength f_{Ct} [MPa]		4	0,08	0,08	0,08	0,08	0,08	0,08	0,08	0,08
	Shear strength f_{Cv} [MPa]		4	0,14	0,13	0,13	0,12	0,12	0,12	0,12	0,11
	Shear modulus G_C [MPa]		4	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,4
	Creep coefficient φ_t (ceilings)		4	φ_{2000} = 1,05; φ_{100000} = 1,43							
	Shear strength f_{Cv} long-term [MPa] (ceilings)		4	0,08	0,08	0,08	0,08	0,08	0,07	0,07	0,06
	Wrinkling stress σ_w [MPa] positive	M	4	250	250	250	250	250	250	250	249
		L	4	218	216	215	213	211	206	201	202
		G, 1L, 2L	4	84	83	83	83	83	83	83	82
	Wrinkling stress σw [MPa] positive elevated temperature	M	4	238	238	238	238	238	238	238	237
		L	4	207	205	204	202	200	195	191	192
		G, 1L, 2L	4	80	79	79	79	79	79	79	78
	Wrinkling stress σ_w [MPa] negative	L	4	123	122	121	119	116	119	121	118
		G	4	84	83	83	83	83	83	83	82
	Wrinkling stress σ_w over support [MPa] negative	M	4	188	183	179	170	161	164	168	167
		L	4	152	150	149	147	145	141	138	137
		G, 1L, 2L	4	59	58	58	57	57	57	57	55
	Wrinkling stress σ_w over support [MPa] negative elevated temperature	M	4	179	174	170	161	153	156	160	159
		L	4	144	143	142	140	138	134	131	130
		G, 1L, 2L	4	56	55	55	54	54	54	54	52
	Wrinkling stress σ_w over support [MPa] positive	L	4	95	93	92	90	87	87	86	85
		G	4	65	64	64	63	62	60	59	58
Thermal transmittance	Thermal transmittance coefficient $U_{d,s}$ [W/(m²K)]		4	0,59	0,45	0,36	0,27	0,22	0,20	0,19	0,17
	Thermal conductivity coefficient λ_D [W/(mK)]		4	0,022							
Reaction to fire; classification*			1	B-s2,d0				B-s1,d0			
Fire resistance of walls; classification*			3	NPD			EI15		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