

PRODUCT PROPERTIES FOR PAROC[®] PANELS

USE	External walls, internal walls and ceilings	CORE	PAROC structural stone wool
PANEL TYPES	AST [®] L, AST [®] T, AST [®] S, AST [®] S+, AST [®] F, AST [®] F+ and AST [®] E	WIDTH	Modular width 1200 mm, cover width 1196 mm
EXTERNAL FACING	Steel sheet, standard thickness 0.6 mm, also 0.7 mm available Standard coating PVDF	MAXIMUM LENGTH	12 m
INTERNAL FACING	Steel sheet, standard thickness 0.5 mm, also 0.6 and 0.7 mm available Standard coating polyester, also FoodSafe and stainless steel available	REACTION TO FIRE	Non-combustible, Euroclass A2-s1,d0 ²⁾
		SOUND INSULATION R_w	27...32 dB

EXTERNAL AND INTERNAL WALLS

Panel type	Panel property									
	Nominal thickness, mm	50	80	100	120	150	175	200	240	300
	Actual thickness, mm	53	79	99	120	151	173	202	243	305
AST [®] L	U-value, W/m ² K ¹⁾	–	0.45	0.37	0.30	0.24	0.21	0.18	0.15	0.12
	Fire rating, min ²⁾ horizontal/vertical	–	NPD	NPD	NPD	EI 120/EI 180	EI 120/EI 180	EI 120/EI 180	EI 120/EI 180	EI 120/EI 180
	Weight, kg/m ² ³⁾	–	15	17	18	21	22	24	27	31
AST [®] T	U-value, W/m ² K ¹⁾	–	0.47	0.38	0.31	0.25	0.22	0.19	0.16	0.13
	Fire rating, min ²⁾ horizontal/vertical	–	EI 30/EI 30	EI 45/EI 45	EI 60/EI 90	EI 60/EI 120	EI 180/EI 180	EI 180/EI 180	EI 240/EI 240	EI 240/EI 240
	Weight, kg/m ² ³⁾	–	16	17	19	21	23	25	28	33
AST [®] S	U-value, W/m ² K ¹⁾	–	0.48	0.38	0.32	0.26	0.22	0.19	0.16	0.13
	Fire rating, min ²⁾ horizontal/vertical	–	EI 30/EI 30	EI 60/EI 60	EI 90/EI 90	EI 180/EI 180	EI 180/EI 180	EI 240/EI 240	EI 240/EI 240	EI 240/EI 240
	Weight, kg/m ² ³⁾	–	17	19	21	23	25	28	32	37
AST [®] S+	U-value, W/m ² K ¹⁾	–	–	0.38	0.32	–	–	–	–	–
	Fire rating, min ²⁾ horizontal/vertical	–	–	EI 120/EI 120	EI 120/EI 120	–	–	–	–	–
	Weight, kg/m ² ³⁾	–	–	19	21	–	–	–	–	–
AST [®] F	U-value, W/m ² K ¹⁾	–	0.53	0.43	0.36	0.29	0.25	0.22	0.18	0.14
	Fire rating, min ²⁾ horizontal/vertical	–	EI 45/EI 90	EI 45/EI 120	EI 45/EI 120	EI 240/EI 240	EI 240/EI 240	EI 240/EI 240	EI 240/EI 240	EI 240/EI 240
	Weight, kg/m ² ³⁾	–	19	21	24	27	30	33	38	45
AST [®] F+	U-value, W/m ² K ¹⁾	–	–	0.43	0.36	–	–	–	–	–
	Fire rating, min ²⁾ horizontal/vertical	–	–	EI 120/EI 120	EI 120/EI 120	–	–	–	–	–
	Weight, kg/m ² ³⁾	–	–	21	24	–	–	–	–	–
AST [®] E	U-value, W/m ² K ¹⁾	0.77	0.53	0.43	0.36	0.29	0.25	0.22	0.18	0.14
	Fire rating, min ²⁾ horizontal/vertical	EI 45/EI 45	EI 45/EI 90	EI 45/EI 120	EI 45/EI 120	EI 240/EI 240	EI 240/EI 240	EI 240/EI 240	EI 240/EI 240	EI 240/EI 240
	Weight, kg/m ² ³⁾	16	19	22	24	28	31	34	39	47

EXTERNAL WALLS, PAROC[®] SHADOW PANELS FIRE RATING

Panel type	Panel property									
	Nominal thickness, mm	–	80	100	120	150	175	200	240	300
	Actual thickness, mm	–	79	99	120	151	173	202	243	305
AST [®] S AST [®] F AST [®] E	Fire rating, min horizontal/vertical	–	NPD	NPD	NPD	NPD	NPD	EI 180/–	EI 180/–	EI 180/–

CEILING

Panel type	Panel property									
	Nominal thickness, mm	50	80	100	120	150	175	200	240	300
	Actual thickness, mm	53	79	99	120	151	173	202	243	305
AST [®] E	U-value, W/m ² K ¹⁾	0.77	0.53	0.43	0.36	0.29	0.25	0.22	0.18	0.14
	Fire rating, min ²⁾	NPD	NPD	EI 60	EI 60	EI 60	EI 60	EI 60	EI 60	EI 60
	Weight, kg/m ² ³⁾	16	19	22	24	28	31	34	39	47

NPD = No performance determined (not tested), – = Not available

¹⁾ U-values including surface resistance R_{si} + R_{se} = 0.17 m²K/W and the influence of joints.

²⁾ Note that PAROC[®] acoustic panels are not fire rated. PAROC[®] panels are non-combustible and classified in Euroclass A2-s1,d0. PAROC[®] print and PAROC[®] art panels are classified in C-s1,d0. For more information regarding details and spans contact Paroc Panel System/Technical Support.

³⁾ Panels with standard facings.

MAXIMUM SPANS FOR PAROC PANELS IN SINGLE-SPAN EXTERNAL WALLS

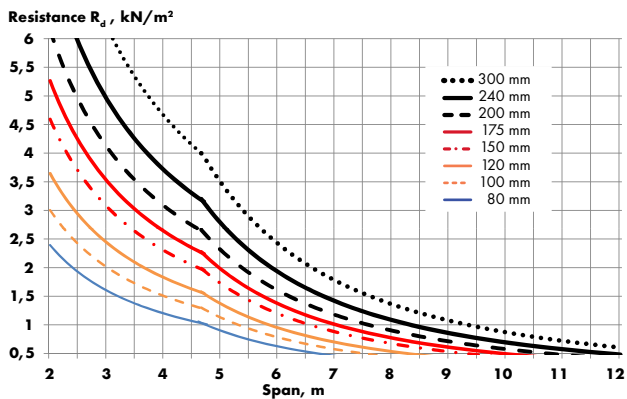
R_d is panel's design value of the resistance including material safety factors (not load safety factors).

These curves are calculated for uniformly distributed load in the ultimate limit state.

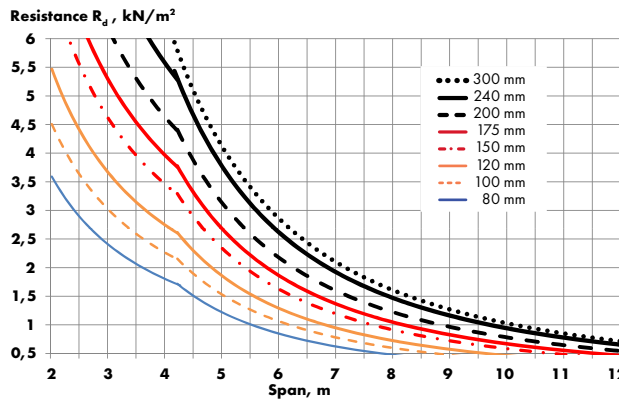
In fire-rated walls spans can be limited.

- Steel sheet thickness 0.6 mm
- Temperature gradient over the panel 0 °C
- Max deflection L/100

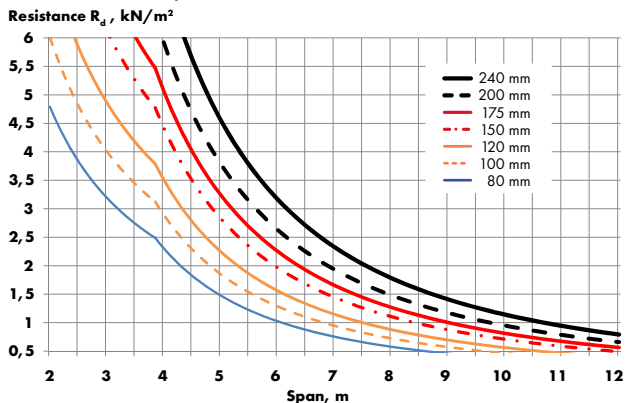
PANEL TYPE AST® T AND AST® L, MAXIMUM SPAN



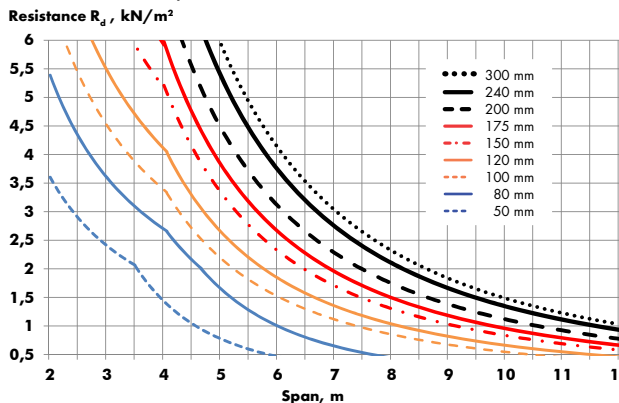
PANEL TYPE AST® S, MAXIMUM SPAN



PANEL TYPE AST® F, MAXIMUM SPAN



PANEL TYPE AST® E, MAXIMUM SPAN



MAXIMUM SPANS FOR PAROC PANELS IN NON-WALK-ON AND WALK-ON CEILINGS

Ceiling type	Panel type AST® E, maximum span, m								
	Panel thickness, mm								
	50	80	100	120	150	175	200	240	300
Walk-on	3.7	5.1	6.1	7.0	8.1	8.9	9.8	10.6	10.9
Non-walk-on	4.4	6.1	7.3	8.3	9.6	10.5	11.4	12.0	12.0

- Upper steel sheet 0.6 mm and lower steel sheet 0.5 mm
- Support width ≥ 40 mm
- Temperature gradient over the panel 0 °C
- Max deflection L/200
- Load for non-walk-on ceilings: the panel dead weight
- Loads for walk-on ceilings: the panel dead weight, a point load of 1.2 kN and a uniform service load of 0.25 kN/m²

More detailed information can be found on www.paroc.com/panelsystem.



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