

# Product Properties

PAROC® panels

<b>Use</b>	External walls, internal walls and ceilings
<b>Panel types</b>	AST® T, AST® S, AST® F and AST® E
<b>External facing</b>	Steel sheet, standard thickness 0.6 mm, also 0.7 mm available Standard coating PVDF
<b>Internal facing</b>	Steel sheet, standard thickness 0.5 mm, also 0.6 and 0.7 mm available Standard coating polyester, also FoodSafe and stainless steel available
<b>Core</b>	PAROC structural stone wool
<b>Width</b>	Modular width 1200 mm, cover width 1196 mm
<b>Maximum length</b>	12 m
<b>Reaction to fire</b>	Non-combustible, Euroclass A2-s1,d0 <sup>3)</sup>
<b>Sound insulation R<sub>w</sub></b>	28...31 dB

Use	Panel type	Nominal thickness mm	Actual thickness mm	Weight kg/m <sup>2</sup> <sup>1)</sup>	U-value W/m <sup>2</sup> K <sup>2)</sup>	Fire rating <sup>3)</sup> minutes	
External walls Internal walls	AST® T	50	53	14	0.68	-	
		80	79	16	0.47	EI 30	
		100	99	17	0.38	EI 45	
		120	120	19	0.31	EI 60	
		150	151	21	0.25	EI 120	
		175	173	23	0.22	EI 120	
		200	202	25	0.19	EI 180	
External walls Internal walls	AST® S	50	53	15	0.69	EI 20	
		80	79	17	0.48	EI 45	
		100	99	19	0.38	EI 60	
		120	120	21	0.32	EI 90	
		150	151	23	0.26	EI 120	
		175	173	24	0.22	EI 180	
		200	202	28	0.19	EI 240	
External walls Internal walls	AST® F	50	53	16	0.77	EI 45	
		80	79	19	0.53	EI 90	
		100	99	21	0.43	EI 120	
		120	120	24	0.36	EI 120	
		150	151	27	0.29	EI 180	
		175	173	30	0.25	EI 240	
		200	202	33	0.22	EI 240	
External walls Internal walls Ceilings	AST® E					<b>Wall</b>	<b>Ceiling</b>
		50	53	16	NPD	EI 45	NPD
		80	79	19	NPD	EI 90	NPD
		100	99	22	0.43	EI 120	EI 60
		120	120	24	0.36	EI 120	EI 60
		150	151	28	0.29	EI 180	EI 60
		175	173	30	0.25	EI 240	EI 60
		200	202	34	0.22	EI 240	EI 60
240	243	39	0.18	EI 240	EI 60		

NPD = No performance determined (not tested)

1) Panels with standard facings

2) U-values including surface resistance  $R_{si} + R_{se} = 0.17 \text{ m}^2\text{K/W}$  and the influence of joints.

3) National values may differ from values appearing in this table. Design of structures and dimensioning of spans according to Technical Guide. Note that PAROC® shadow and PAROC® acoustic panels are not fire rated and PAROC®print and PAROC®art panels are classified in Euroclass C-s1,d0.

**Panel System**

3.00 INT

April 2010

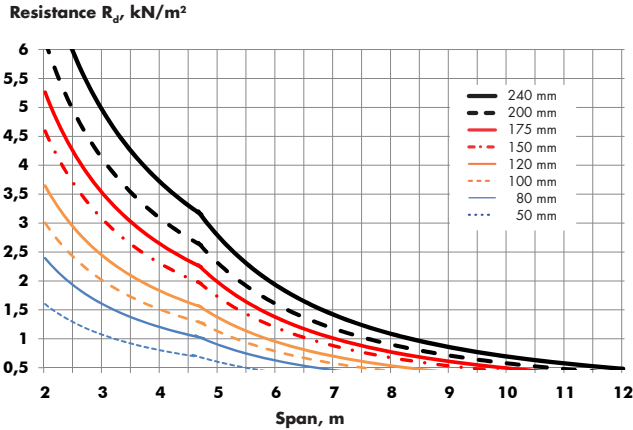
Replaces January 2008

### Maximum spans for PAROC panels in single-span external walls

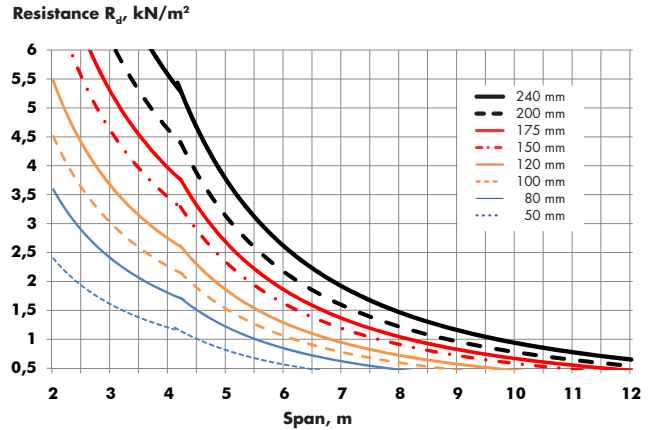
$R_d$  is panel's design value of the resistance including material safety factors (not load safety factors). These curves are calculated for uniformly distributed load in the ultimate limit state. In fire-rated walls spans can be limited.

- Steel sheet thickness 0.6 mm
- Temperature gradient over the panel 55 °C
- Max deflection L/100

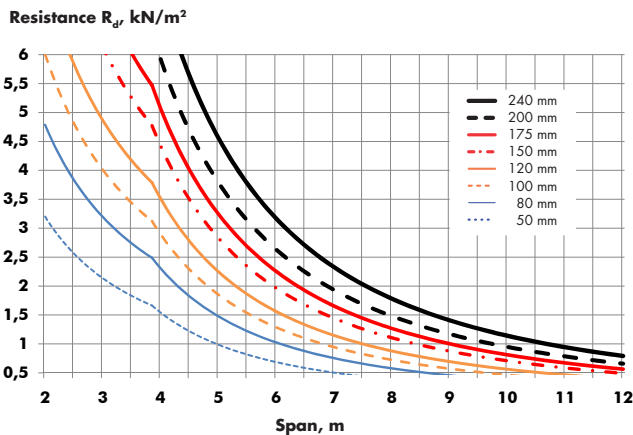
**Panel type AST® T, maximum span L, m**



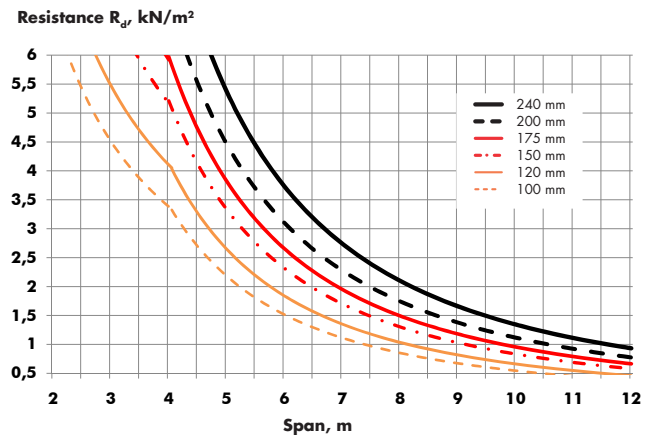
**Panel type AST® S, maximum span L, m**



**Panel type AST® F, maximum span L, m**



**Panel type AST® E, maximum span L, m**



### Maximum spans for PAROC panels in non-walk-on and walk-on ceilings

**Panel type AST® E, maximum span L, m**

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

- Upper steel sheet 0.6 mm and lower steel sheet 0.5 mm
- Support width  $\geq 40$  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/m<sup>2</sup>

More detailed information can be found on [www.paroc.com/panelsystem](http://www.paroc.com/panelsystem).

