

Steady state heat transfer calculation plane wall - vertical

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Project:	Revis.Name:		M: +48 667 674 091
Location:	Revis.Date:		T: +48 74 85 62 (736)

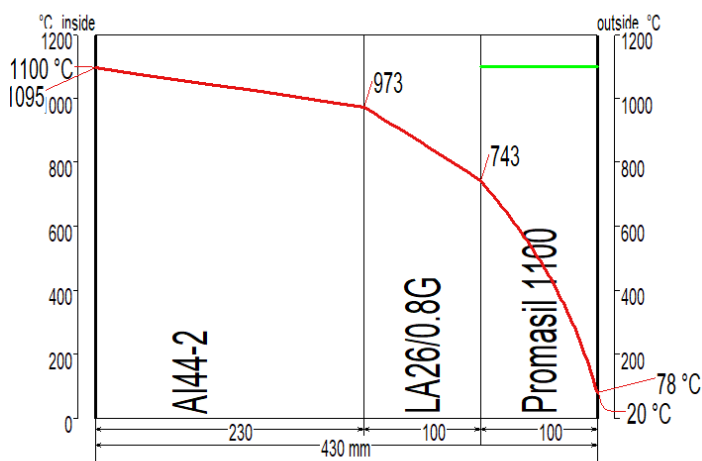
Calculation 1 // //

	inside	outside	unit	lining characteristics
Ambient temperature	1100	20	°C	430 mm total thickness
Surface temperature	1095.3	78.4	°C	704.5 W/m ² Heat loss inside
Heat transition coefficient	150	12.07 ⁽¹⁾	W/m ² K	704.5 W/m ² Heat loss outside
				682 MJ/m ² Heat content total
				626 kg/m ² weight

(1) Calculation method ASTM C680, issue 2004 Emissivity=0.91 - wind =.0 m/s

wall layers from inside to outside

Material	Thickn. mm	Density kg/m ³	border °C	mean °C	K mean W/mK Var
1 AI44-2	230	2250	1095.3	1035	1.328
2 LA26/0.8G	100	800	973.3	860	0.306
3 Promasil 1100	100	285	742.9	472	0.1144
	430		78.4		



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Calculation **2 // //**

	inside	outside	unit	lining characteristics
Ambient temperature	1100	20	°C	430 mm total thickness
Surface temperature	1096.3	68.1	°C	550.8 W/m ² Heat loss inside
Heat transition coefficient	150	11.45 ⁽¹⁾	W/m ² K	550.8 W/m ² Heat loss outside
				643.6 MJ/m ² Heat content total
				576.5 kg/m ² weight

(1) Calculation method ASTM C680, issue 2004 Emissivity=0.91 - wind =.0 m/s

wall layers from inside to outside

Material	Thickn. mm	Density kg/m ³	border °C	mean °C	K mean W/mK Var
1 AI44-2	230	2250	1096.3	1049	1.333
2 PROMAFORM 1430	100	270	1001.3	873	0.1993
3 PROMAFORM 1260	100	320	720.3	450	0.0875
	430		68.1		

