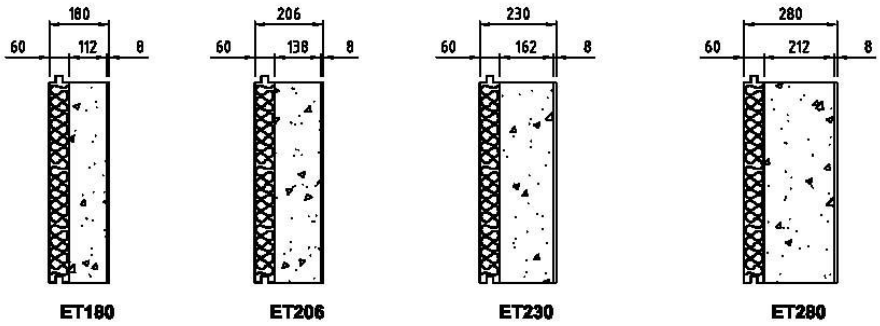
Calculations of R-values for FormPro ET Walls



General assumptions made in the calculations are:

- Thermal conductivity for Concrete at density 2850 Kg/m^3 = 1.44 W/mK
- Thermal conductivity of Fibre cement = 0 .173 W/mK
- Thermal Conductivity for EPS at density of 26 Kg/m^3 and mean temperature 23°C = 0.0376 W/mK
- Thermal conductivity of Plasterboard = 0.173 W/mK
- 3.4m/s wind and surface emittance = 0.9

Non-variable R-value contribution - (thickness (m) / k)

Outside air		= 0.044
8mm Fibre Cement	= 0.008 / 0.173	= 0.046
60mm EPS	= 0.060 / 0.0376	= 1.596
10mm Plasterboard	= 0.010 / 0.173	= 0.057
Inside air		= 0.12
Total Non-variable contribution		= **1.863**

Variable R-value contribution - (thickness (m) / k)

Concrete:

ET180 (112mm conc.)	= 0.112 / 1.44	= 0.078
ET206 (138mm conc.)	= 0.138 / 1.44	= 0.096
ET230 (162mm conc.)	= 0.162 / 1.44	= 0.113
ET280 (212mm conc.)	= 0.212 / 1.44	= 0.147

Product	Model	Total Wall Thickness	Concrete Thickness	Concrete R–value	Total R–value
FormPro	ET180	180mm	112mm	0.078	1.941
FormPro	ET206	206mm	138mm	0.096	1.959
FormPro	ET230	230mm	162mm	0.113	1.976
FormPro	ET280	280mm	212mm	0.147	2.010