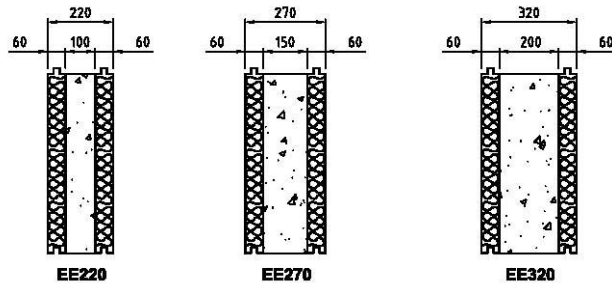


Calculations of R-values for FormPro EE Walls



General assumptions made in the calculations are:

- Thermal conductivity for Concrete at density 2850 Kg/m³ = 1.44 W/mK
- Thermal Conductivity for EPS at density of 26 Kg/m³ 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
60mm EPS	= 0.060 / 0.0376	= 1.596
60mm EPS	= 0.060 / 0.0376	= 1.596
10mm Plasterboard	= 0.010 / 0.173	= 0.057
Inside air		= 0.12
Total Non-variable contribution		= 3.413

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

Concrete:		
EE220 (100mm conc.)	= 0.100 / 1.44	= 0.144
EE270 (150mm conc.)	= 0.150 / 1.44	= 0.216
EE320 (200mm conc.)	= 0.200 / 1.44	= 0.288

Product	Model	Total Wall Thickness	Concrete Thickness	Concrete R-value	Total R-value
FormPro	EE220	220mm	100mm	0.144	3.557
FormPro	EE270	270mm	150mm	0.216	3.629
FormPro	EE320	320mm	200mm	0.288	3.701