As per the guidelines of NZS 4214:2006 the thermal calculation for 50mm EZpanel Aerated Concrete Panel (over a 20mm cavity) installed over the surface of a wall incorporating an R=1.8 wall batt is as follows:

	R (m^2°C/W)
Rse (exterior surface resistance)…….	= 0.03
Layer 1 5mm Cement based exterior plaster ……...	= 0.01
Layer 2 50mm EZpanel Exterior Cladding (derated by 45%)……...	= 0.31

Layer 3 For the frame area (studs @ 600 centres – dwangs @ 800)

R1 (94mm thick R 1.8 insulation + 20mm air space)

1.80 + 0.09= 1.89

R2 (94mm deep timber framing, k = 0.12 W/mK + 20mm air space)

0.78 + 0.09= 0.84

$f1 = \frac{(600-47) \times (2400 - 4x47)}{600 \times 2400} = 0.849$

$f2 = 1 - 0.849 = 0.151$

$\frac{1}{Rb} = \frac{f1}{R1} + \frac{f2}{R2} = \frac{0.151}{0.84} + \frac{0.849}{1.89} = 0.59$

Therefore $Rb = \frac{1}{0.59}$ = …… = 1.59

Layer 4 Internal 9.5mm Plasterboard Lining …….	= 0.05
Rsi (interior surface resistance) ……...	= 0.09
Total thermal resistance, RT ……..	= **2.08**