

NZBC Clause H1/AS1 – Energy Efficiency to NZS 4218:2009

Building Code Clause H1 Energy Efficiency is defined in New Zealand Standard 4218:2009 November 2023 (Fifth Edition).

Litecrete 150 mm thick panels comply with the Building Code H1 Energy Efficiency insulation requirements when a 50 mm thick Kingspan K17 or similar phenolic insulating panel is glue-fixed to the internal face of the 150 mm thick Litecrete panel. The K17 panel has a 10 mm plasterboard facing included in the 50 mm thickness. Thus, the overall wall thickness is 200 mm = R 2.26. Thicker K17 panels are available where a higher R-value is desired.

Following is the minimum R-value external wall requirement for all climate zones:

Climate Zones	Min R-value	Litecrete Building Code compliance solution
Zone 1-6 All of New Zealand	R2.0	150 mm thick panels (R0.6) plus K17 insulating board on internal face; total wall R-value of R2.26.

The Standard provides for two methods of compliance:

1. The Schedule Method shall only be used where:
 - (a) The glazing area is 30% or less of the total wall area;
 - (b) The combined area of glazing on the east, south and west-facing walls is 30% or less of the combined total area of these walls;
 - (c) The skylight area is no more than 1.5 m² or 1.5% of the total roof area (whichever is the greater);
 - (d) The total opaque door area is no more than 6 m² or 6% of the total wall area (whichever is the greater);
2. The Calculation Method shall only be used where:
 - The glazing area is 40% or less of the total wall area

EXTERNAL RESIDENTIAL LITECRETE WALL, CLIMATE ZONES 1-6:

Overall wall thickness = 200 mm

