

PRODUCT INFORMATION: MASONRY & CONSTRUCTION



MAY 2020

What R-Value do the blocks have?

	Auckland Whangarei	Belmont	Christchurch South Island
Density kg/m³	1650	1750	2150
15 Series			
Solid fill	0.25	0.23	0.20
Partial fill	0.29	0.29	0.26
20 Series			
Solid fill	0.27	0.27	0.23
Partial fill	0.32	0.32	0.27
25 Series			
Solid fill	0.31	0.31	0.26
Partial fill	0.36	0.35	0.29
HotBloc® 20 Series	34mm Polystyrene	0.70 Solid fill	
HotBloc® 25 Series	75mm Polystyrene	1.16 Solid fill	
HotBloc® 25 Series	40mm Polystyrene	0.80 Solid fill	

What is an R-Value?

The value that measures the resistance for heat to pass through a material (in or out it doesn't matter)

Why do partially filled blocks have a higher R-Value?

This is because of the cavity - air acts as an insulator and increases the R-Value.

Solid: fill every core of the block

Partial: fill only cores with reinforcing in them (ie Typically every 800mm)

Note: Subject to design structural walls may be required to be solid fill. HotBloc must be solid fill to achieve its thermal mass properties.

What is the difference between block densities?

It depends on where the block has been manufactured. Variation is due to the materials available at each location.

What is the breakdown of total home R-Values?

Heat escapes in varying degrees in different parts of a house. Most heat is lost through the ceiling then the walls with the least amount through the floors of the house.

The building code (NZ Standards) specifies three types of construction, which are Solid & Non-Solid and Solid Timber. Each type of construction has its own R-Values. Masonry comes under the solid construction category.

