EFFICIENCY MANITOBA

Home Insulation Rebate
Generic insulation R-values per inch

When the specific insulation material make and manufacturer is unknown, we'll use these generic R-values per inch to determine original R-values for a project.

MATERIAL		(R/INCH)
Batt or blanket type insulation		
Glass fibre	• Composed of long fibres of spun glass loosely woven together and bonded with resin • Batts 3.5" thick = R-12 • Batts 5.5" to 6" thick = R-20	
Mineral fibre (rock/stone wool)	• Made from natural rock which is melted, made into fibres, and bonded • Batts 3.5" thick = R-12 • Batts 5.5" to 6" thick = R-20	
Loose fill insulation		
Cellulose fibre	Manufactured from finely shredded newsprint with chemicals mixed in to resist fire and fungal growth	(3.6)
Glass fibre	Similar material to glass fibre batts but chopped up for blowing purposes	(2.7)
Vermiculite	• Mica material that has been expanded by a high temperature steam process; • Light brown/grey/gold in colour and is a pebble-like material ranging in size from 2 to 10 millimetres in diameter • Vermiculite installed prior to 1990 is likely to contain asbestos Note: Existing vermiculite should be handled with care. For more details on vermiculite insulation, check out the Safe Manitoba bulletin available from Manitoba Workplace Safety and Health or online at **safemanitoba.com/Resources/Pages/bulletin-245.aspx**.	(2.2)
Wood shavings	By-product of wood industries; shavings are often mixed with lime and other chemicals	(2.2)
Rigid board insulation		
Expanded polystyrene ("beadboard" or "EPS")	**Type 1 & 2** Produced by a process that results in beads containing air, bonded together into rigid, foam plastic boards	Low density (3.75) High density (4.1)
Extruded polystyrene ("XPS")	**Type 3 & 4** A foam plastic board composed of fine, closed cells containing a mixture of air and other blowing agent gases (such as fluorocarbons including HFCs and HFOs)	(5.08)
Polyisocyanurate boards	• A foam plastic board with primarily closed cells filled with air and other blowing agent gases (such as hydrocarbons including pentane blends) • Foil faced products typically benefit from improved thermal resistance, reduced water, vapour and gas permeability and enhanced structural stability	(5.7)
Spray/blow in place insulation		
Spray polyurethane foam	• A semi-flexible plastic foam manufactured on site using two liquid components • Liquid components are mixed in a specific ratio and spray applied where they cure in place through a chemical reaction	Medium density (5.19)
Cellulose	• Made from paper or paper board stock with chemical additives for fire and fungal resistance • It can be spray applied with water to form a cohesive mat on surfaces, but is more typically blown into attic spaces or wall cavities	(3.5)
Glass fibre	• Loose, glass fibre insulation, incorporating a water-activated adhesive • The dry insulation is misted with water and installed using a blowing machine	(3.6)

The R-values per inch listed in this chart are in imperial units, $°F·ft^2·h/Btu$. These values are aligned with the National Building Code 2020 (NBC 2020) Table A-9.36.2.4.(1)-D. Generic material thermal resistance values listed in that table but not listed here are also accepted.

To learn more, visit efficiencyMB.ca/HomeInsulation

Available in accessible formats upon request.