

Procedure for the Home Insulation Rebate

- 1. This Application is to be completed by a Contractor/Retailer registered with Efficiency Manitoba along with the Customer. The Contractor/Retailer must submit the Application to Efficiency Manitoba and receive approval before purchasing materials or starting any work including removing drywall, stucco, or original insulation.
- 2. An application number will be issued by Efficiency Manitoba to the Contractor/Retailer once approved.

Part I. Obtaining approval

- 1. Ensure the project qualifies for the Home Insulation Rebate in accordance with the Project Summary and the Terms and Conditions.
- 2. Verify that the Customer:
 - a) owns the property;
 - b) hasn't started the project; and
 - c) has the information required to complete the Application.
- 3. Review and complete the Application and Project Summary with the Customer. The Customer must sign the Customer statement on the Application.
- 4. Email or fax the completed forms to Efficiency Manitoba. Before approving, Efficiency Manitoba will indicate if a preverification inspection is required. If so, Efficiency Manitoba will contact the Customer to schedule an appointment. Work can't start on the project until the verification inspection is completed.
- 5. Efficiency Manitoba will email the Contractor/Retailer to advise if the Application has been approved or declined. The Contractor/Retailer will advise the Customer of the status.
- 6. If the project is approved, the Customer or Contractor can now purchase and install the insulation materials. Be sure to do the following:
 - a) Obtain any building and/or electrical permits, if required.
 - b) Ensure the work meets the requirements of the Home Insulation Rebate, Manitoba Building Code, and all applicable bylaws, and is acceptable to inspection authorities.
 - c) Complete the work within 12 months of the approval date.

Part II. Obtaining the rebate

- 1. Once all insulation is installed, the Customer and Contractor/Retailer must complete, sign, and date the Completion Declaration.
- 2. Email, fax, or mail the following documents to Efficiency Manitoba within 30 days of the completion of the insulation project and within 12 months of the approval date:
 - a) Completion Declaration
 - b) Invoice/receipt(s) for the insulation materials paid for in full. Any materials returned or discounted must be noted on the invoice/receipt(s) and those amounts must be removed from the total material cost.

Send documents to:

Email homeinsulation@efficiencyMB.ca Fax 1-844-364-0080

Efficiency Manitoba Home Insulation Rebate PO Box 247 STN MAIN Winnipeg MB R3C 2G9 Call **1-204-944-8181** Toll Free **1-844-944-8181** efficiencyMB.ca/homeinsulation



Agreement

Efficiency Manitoba ("EM") offers a "Rebate(s)" to an eligible homeowner (the "Customer") of an eligible residential property (the "Residence") who purchases and installs insulation materials (the "Product(s)") that qualify under the Home Insulation Rebate (the "Program") Terms and Conditions set out below and as set out in Appendix A – Program Eligibility Criteria, which forms part of this Agreement.

The Home Insulation Rebate Application (the "Application") is conditional on APPROVAL by Efficiency Manitoba under the Program and forms a binding agreement on the Customer. All information provided by the Customer must be true and correct as at the application date. This Application must be APPROVED BY EFFICIENCY MANITOBA BEFORE the Product(s) can be purchased or starting any work including removing drywall, stucco, or original insulation. All Rebate amounts are estimates and will be finalized based on the Customer meeting all Terms and Conditions of the Program and a review of all application materials including final paperwork, invoicing/receipt(s), and any final inspections. Rebates for each insulated area won't exceed the insulation material cost (including tax) needed to meet the Program's final R-value requirements. The Rebate will be calculated in accordance with the Program's Rebate calculations, which may be amended by EM in its discretion. See efficiencyMB.ca/homeinsulation for current rebate offers.

1.0 Tax implication

1.1 EM is not be responsible for any tax liability imposed on the Customer as a result of any payment of the Rebate.

2.0 Warranties and agreements

- 2.1 The Customer warrants that all Product(s) fully qualify and comply with Appendix A Program Eligibility Criteria.
- 2.2 The Customer warrants that all information contained in the Application is true and correct. The Customer undertakes to advise EM immediately should there be any change to information, including ownership of the property, contained in the Application during the Customer's participation in the Program. Changes to information contained in the Application may affect eligibility under the Program and Rebate amounts.
- 2.3 The Customer warrants and agrees that: i) they have read Appendix A Program Eligibility Criteria for this Program and the Customer and the project fully qualifies to participate in the Program; ii) the Application and all matters and materials relating thereto (including, without limitation, all Product(s) installed by the Customer) fully qualify and comply with the Program Eligibility Criteria; and iii) they have the full authority to provide to EM the Application and all information and documents in relation to this Agreement and that all information and documents are and shall be correct, current, and complete.
- 2.4 EM reserves the right to conduct a pre-verification and post-verification inspection of the Residence and Product(s) to determine whether approval may be granted and/or whether any Rebate will be issued for a period up to 12 months after installation and receipt of all final paperwork by EM. The Customer agrees that the pre-verification inspection may include accessing insulation through the attic hatch when applying for attic or wall drilling, to verify original wall cavity R-values in each applicable wall when applying for wall cavity eligible Product(s).
- 2.5 The Customer agrees to the Terms and Conditions of this Agreement and shall comply with same, together with all Program requirements, unless specifically waived by EM in writing. If the Customer fails to comply with this Agreement or any other requirement of EM made pursuant these Terms and Conditions, including without limitation if the Customer ceases to be the Manitoba Hydro ("MH") account holder for the residence specified on the Application, then upon notice from EM, any Rebate then-unpaid to the Customer shall be cancelled and any Rebates paid to a Customer who was in violation of this Agreement as at the payment date of the Rebate shall immediately repay the Rebate to EM.
- 2.6 EM decisions relating to the Customer, Application, the Product(s) eligibility, energy savings of the Product(s), the Rebate amount(s), or other issues relating to the Program will be final and binding on all parties and not subject to appeal.
- 2.7 EM reserves the right to change or terminate the Program at any time in its discretion without notice. In-process applications may be subject to cancellation should the Program be terminated. Rebate amounts are subject to change without notice and aren't confirmed until the time of issuance.
- 2.8 EM reserves the right to limit the number of Program participants in its discretion, including where a Customer or Product(s) would otherwise qualify under the Program.
- 2.9 This Application may be executed in any number of counterparts, including counterparts signed by fax, emailed scan-copy, or by electronic signature when submitted through an EM Customer user account. Where signed in counterparts, each of which shall be deemed an original and all of which together shall constitute one in the same instrument. A photocopied and/or fax copy of this Agreement bearing the signature of each party or an electronic copy of this Agreement having been agreed to electronically through an EM Customer user account and approved by EM shall be deemed an original execution version of this Agreement. The Customer is responsible for all activity through the EM Customer user account.
- 2.10 This Agreement shall be governed by and construed in accordance with the laws of Manitoba and the applicable laws of Canada without regard to Manitoba or federal Canadian law governing conflicts of law, even if one or more of the parties to this Agreement is resident of or domiciled in any other province or country. The parties hereby irrevocably attorn to the exclusive jurisdiction of the Court of King's Bench of Manitoba, Winnipeg Centre.
- 2.11 By applying for the Program, the Customer acknowledges and consents to EM or one of its agents contacting the Customer in the future to participate in a survey regarding the Program.
- 2.12 The Customer consents to EM or one of its agents collecting and using the Customer's personal information for the purpose of administering the Application for the Rebate.



Home Insulation Rebate Terms and Conditions

3.0 Installation requirements

The Customer shall ensure that:

- 3.1 the Product(s) meet the requirements set forth in the Appendix A Program Eligibility Criteria and be acceptable to the inspection authorities having jurisdiction;
- 3.2 the Product(s) is installed and operational in the Residence as specified on this Application within 12 months of the date EM has given the approval for work to proceed; and
- 3.3 the Residence and areas being insulated (attic, walls, foundation) are accessible for any pre-verification and post-verification inspections; the Customer is in attendance for any verifications; and a minimum of 24 hours notice is provided to EM as required to reschedule any verification appointments.

4.0 Approvals and supporting documentation

- 4.1 EM's approval for Rebates under this Program relates to the Customer's Program participation only and shouldn't be interpreted to constitute consents, permits, or other approvals required for necessary installation or construction associated with Program participation. The Customer shall obtain all necessary consents, permits, certificates, and other such approvals required by applicable laws, building codes, and standards to carry out the purchasing, installation, constructions, or use of Products under the Program.
- 4.2 EM reserves the right to, at any time, request and verify that the Product(s) have been installed in accordance with this Agreement, including without limitation by way of the Customer supplying EM with proof of purchase of materials, permits, or other documentation acceptable to EM. The Customer shall, as necessary, provide consents and authorizations, including without limitation, to its EM Registered Supplier ("Contractor" or "Retailer") or otherwise as necessary to provide for direct communication with EM for these purposes.
- 4.3 The issuing of an Application approval in no way binds EM to grant or pay a Rebate where the Terms and Conditions haven't been met, or information in an Application is determined by EM to be inaccurate or incorrect.
- 4.4 The Customer agrees to keep copies of all paperwork, supporting documents, and invoices/receipts required for Rebate eligibility for 24 months from the date of approval. Any documents submitted to EM are the property of EM and won't be returned unless done so at the discretion of EM.
- 4.5 Within 30 days after the completion of an approved insulation project and no later than 12 months after the approval date, the Application must be completed in full and received by EM accompanied with all required supporting paid invoices/receipts for Product(s) for which the Customer is claiming a Rebate, all in accordance with the Terms and Conditions. The Customer's supporting documentation must show the following:
 - 4.5.1 The Contractor supporting invoices: name, address, and contact information of the Contractor; invoice date and number; Customer name (which must match the name on the Customer's MH account), address where project work was performed; description of work including area insulated (e.g. attic, wall cavity, basement, etc.), square feet insulated, R-value added, final R-value, and unit cost for each material type, insulation material costs separate from labour, description of eligible insulation materials installed including product manufacturer, type of insulation, size, number of bags or sheets or inches of insulation installed; total price separate from taxes; proof of full payment, and a description of any discounts applied or materials returned and revised price.
 - 4.5.2 The Retailer supporting receipts: Retailer or building supplier name and address; description of eligible insulation materials installed including product manufacturer, type of insulation, size, and number of bags or sheets of insulation installed; total price separate from taxes; date of purchase; proof of full payment, and a description of any discounts applied or materials returned and revised price.

5.0 Liability

- 5.1 EM will have no right, title, or interest in the Product(s) or Residence by virtue of the Customer's participation in the Program or the payment of any Rebate hereunder.
- 5.2 EM, not being the designer, manufacturer, nor installer of the Product(s), nor a designer, builder, or developer of buildings, makes no representation or warranty, express or implied, as to the fitness, safety, quality of design practices, or capability of the Product(s) or its installation, workmanship, or use, nor warrants that the Product(s) will satisfy the requirements of any law, rule, code, specification, or contract.
- 5.3 The Customer hereby indemnifies and saves harmless EM, its directors, officers, agents, and employees from all damages, expenses, and costs for injury or death of any person, damage to or destruction of property, and all economic loss suffered by any person caused by installation or use of the Product(s).
- 5.4 The Customer assumes all risk and responsibility for selection, purchase, installation, and use of any Product(s) and any construction associated therewith, as well as any damages, injury, or costs that may result from the installation or use of the Product(s).
- 5.5 EM doesn't endorse any consultant, manufacturer, product, system, design, contractor, supplier, retailer, designer, developer, builder, tool, system, design, or installer in promoting this Program.
- 5.6 The Customer acknowledges and agrees that they are solely responsibility for the disposal of all hazardous materials (including, without limitation, asbestos) that may be contained in the Product(s), and that they shall do so strictly in accordance with all applicable laws, government regulations and requirements, and agrees that EM has no responsibility or liability with respect to any such disposal.
- 5.7 The Customer acknowledges and agrees that EM doesn't guarantee any energy savings or other benefits arising from the installation, performance, use, or fitness of the eligible Product(s).



Home Insulation Rebate Terms and Conditions

Appendix A — Program Eligibility Criteria

To qualify under the Program, the following Program Eligibility Criteria must be met:

General eligibility

- (a) The Customer must be the owner of the Residence, one of the active MH account holders for the account under which an Application for Rebate under the Program is being submitted, and are responsible for payment of the account.
- (b) The Residence must be occupied by the Customer or their tenant 12 months per year. For clarity, the Residence must not be a seasonal property.
- (c) The Customer must apply through an EM Registered Supplier ("Contractor/Retailer") and must purchase the Product(s) through the same Contractor/Retailer.
- (d) As an active MH account holder, the Customer must be eligible for MH residential service electricity and natural gas rates. For clarity, the Residence must not be a commercial property. Unheated buildings won't qualify for Rebates under the Program.
- (e) The Product(s) shall be used by the Customer in a residential (excluding multi-unit residential buildings with more than four units) capacity only and in accordance with the Application and this Agreement.
- (f) The Residence must be: built prior to 2010 unless otherwise agreed to by EM in writing; a detached or semi-detached home on its original foundation; or a mobile/modular home on a permanent foundation with a permanent water supply and be intended for human habitation.
- (g) The Residence must not be a seasonal residence, vacation rental, an unoccupied home, a home relocated to a new foundation, an attached garage, or an outbuilding. Porches, verandas, sunrooms, barns, mobile home skirting or floor insulation, or any unheated space(s) within the Residence (this includes conversions of unheated spaces into heated spaces) are not eligible for a Rebate.
- (h) Rebates under the Program are for renovation projects only. For clarity, the Residence must not be a new build or a new addition to an existing Residence. Rebates are not available for projects in-progress or already completed prior to approval of a Customer's Application.
- (i) Products which are reasonably anticipated to receive or have received financial assistance under any other federal, provincial, or MH or EM energy conservation program are not eligible for this Program, unless otherwise agreed to by EM in writing. The Customer shall make full disclosure of same as part of the Application and shall provide further information and/or documentation to EM upon request for consideration by EM.
- (j) EM must be notified in writing of any changes to the insulation upgrade or Residence ownership that affects the Application. Changes to the information on the Application after submission and Program approval may result in the Customer being deemed ineligible for a Rebate and the Application being cancelled as determined by EM.
- (k) A Contractor/Retailer cannot apply or receive a Rebate for a Residence in which they have ownership of.

Insulation upgrade eligibility

- (I) Only one Application per insulation area (i.e. attic, wall cavities, wall exterior, foundation walls) per Residence will be accepted.
- (m) Rebates for each insulated area will not exceed the insulation material cost (including taxes) needed to meet the Program's final R-value requirements. For clarity, insulation added above the final R-value requirement per insulation area will not be eligible for a Rebate. Labour and other building material costs such as siding, lumber, and hardware are not eligible for a Rebate.
- (n) A minimum of 100 square feet must be insulated per insulation area to be eligible for a Rebate.
- (o) Insulation projects must meet the original and final R-value requirements outlined in the chart below to be eligible for a Rebate.
- (p) For projects that include replacement of original insulation, only the R-value added above the original level of insulation will be eligible for a Rebate.

Insulation area	Original R-value	Final R-value	Rate
Attic (open)	R-34 or less	R-50 to R-60	\$0.03
Cathedral, sloped, or flat roof	R-30 or less	R-28 to R-60	\$0.03
Attic kneewall	R-12 or less	R-24	\$0.03
Wall cavities (between studs)	R-12 or less	R-12 to R-24	\$0.06
Wall exterior (when re-siding)	R-O	R-3.75 to R-15	\$0.15
Foundation walls	R-12 or less	R-22 to R-24	\$0.06

The Rebate will be calculated using the rate for the applicable insulation area multiplied by both the R-value added and the square footage of the area being insulated.



- (q) Above grade foundation or gable ends are not eligible for a Rebate under wall exterior insulation upgrades.
- (r) Crawlspaces must have a below grade depth of less than two feet with a total height of less than four feet to qualify for a Rebate.
- (s) Product(s) must be new, purchased in Canada, and have thermal properties (verified R-value) in accordance with current recognized Canadian standards prepared by the Canadian Construction Materials Centre (CCMC). Reports by other third-party agencies must be approved by EM for a Product to be determined as eligible. All insulation materials which include blowing agents must be evaluated based on Long Term Thermal Resistance (LTTR) to be eligible. Properties provided in these reports will form the basis of calculations for Rebates.



Instructions: This Application and Project Summary must be completed and submitted by an Efficiency Manitoba (EM) Registered Supplier (Contractor/Retailer) to EM for approval before purchasing materials or starting any work including removing drywall, stucco, or original insulation. Please see the Procedure for the Home Insulation Rebate on page 1 for further instructions.

Email: homeinsulation@efficiencyMB.ca

Mail: Efficiency Manitoba, Home Insulation Rebate, PO Box 247 STN MAIN, Winnipeg MB R3C 2G9

Contractor/retailer information

Company name	Address

Homeowner information (please print)

Homeowner name(s)	Installation address M	anitoba Hydro account	number (14 digits)	
Phone number	Email	·		
Installation physical address	City/town		Province	Postal code

Residence information

Residence is: Primary residence Rental property	9	Type of residence (check one only) Single-family home (e.g. bungal Mixed-use residential (i.e. the liv				uplex, triplex, tow iness) Mobil	nhouse) le home	Size of resid	dence sq. ft.
Year of construction	Number of storeys	Home heating type Natural gas Electric Propane Fuel oil Woo	od	Home heatir Standard	o , ,	if natural gas is se High	elected):	Central air o Yes	conditioning? No
Home heating system	1				Have you co	mpleted a pre-ret	rofit EnerG	Guide evaluat	ion?
Furnace Ba	seboard Boiler	Ground source heat pump	Air source he	eat pump	Yes	No			
Are you planning to u	se spray foam insulat	ion for your project?	Are you pla	nning any oth	er insulation u	upgrades in the ne	ext two ye	ars?	
Yes No			Yes	No					
To qualify for a rebate, spray foam insulation must be installed by a certified technician. DIY spray foam kits available for purchase at retail stores are not eligible for a rebate.			lf yes, what	area of the h	ome?				

Customer statement (Read the Terms and Conditions before signing)

I, the Customer, have read and understood this Application, the Agreement, and the Program Eligibility Criteria set out in Appendix A to this Application and I agree to the Terms and Conditions set out therein. I confirm to Efficiency Manitoba that I have fully and accurately completed this Application and warrant that I fully qualify and have complied with such Terms and Conditions. I understand that this Application is conditional on approval by Efficiency Manitoba in its discretion. I also understand this Rebate amount is an **estimate** only

and that this Application must be **approved** by Efficiency Manitoba **before** purchasing materials or starting any work including removing drywall, stucco, or original insulation.

I, the Customer, understand that Rebates will not exceed the insulation material cost (including taxes) needed to meet the Program's final R-value requirements.

Signed by (Customer)	уууу	mm	dd
Print name	1		



Customer feedback

How did you hear about this program? (check all that appl)	
Retailer/contractor Efficiency Manitoba website Advertisement (print, TV, radio) Manitoba Hydro w Community Energy Efficiency Program Other (plea	Efficiency Manitoba newsletter Digital ad (website, social media ebsite/bill insert Brochure/handout Special event (home show se specify)	, i
Voluntary self-declaration (optional)		

Do you self-identify as a Canadian Indigenous person (person of North American Aboriginal Ancestry including First Nations (status or non-status), Inuit, or Métis)? Yes No								
lf yes, are you: First Nations (status) First Nations (non-status) Inuit Métis Prefer not to say								

Supplier bonus

We're currently giving a \$100 bonus to Contractors/Retailers for every eligible Home Insulation Rebate Application they complete on behalf of a Customer. Only one supplier bonus is eligible per Residence.

The supplier bonus cheque will be sent to the payee listed below (not the company) when the Customer Rebate is issued.

Payee information

Are you participating in the supplier bonus for this Application?			
Yes No			
Payee name			
Cheque mailing address	City/town	Province	Postal code

Personal information is being collected under the authority of Efficiency Manitoba and The Efficiency Manitoba Act and is subject to the provisions of the Manitoba Freedom of Information and Protection of Privacy Act gov.mb.ca/fippa. The purpose is to provide incentives to customers for installing energy-efficiency products and to acquire information to calculate energy savings. Other uses and disclosures may be to participating suppliers, Public Utilities Board, external auditors, government entities, and Efficiency Manitoba officials. If you have any questions about the collection of information, contact Efficiency Manitoba at 1-204-944-8181.



A pre-verification inspection of the original insulation levels and square footage of the insulation area may be required prior to application approval.

A post-verification inspection of the insulation purchased and installed may also be required prior to payment of a Rebate.

Homeowner name(s)	Installation address

To qualify for a Rebate, projects **must** meet the original and final R-value requirements listed in the chart below.

Insulation area	Original R-value	Final R-value	Rate
Attic (open)	R-34 or less	R-50 to R-60	\$0.03
Cathedral, sloped, or flat roof	R-30 or less	R-28 to R-60	\$0.03
Attic kneewall	R-12 or less	R-24	\$0.03
Wall cavities (between studs)	R-12 or less	R-12 to R-24	\$0.06
Wall exterior (when re-siding)	R-0	R-3.75 to R-15	\$0.15
Foundation walls	R-12 or less	R-22 to R-24	\$0.06

Insulation area	Installation information	Rebate calculation	Estimated rebate (\$)
1 Space constraint? Yes No	 A Area eligible sq. ft. Original R-value (include cavity R-value for exterior projects) B Added R-value eligible Final R-value 	sq. ft. ×R added × A B Rate	
2 Space constraint? Yes No	A Area eligible	sq. ft. ×R added × A B Rate	
3 Space constraint? Yes No	A Area eligible sq. ft. Original R-value (include cavity R-value for exterior projects) B Added R-value eligible Final R-value	sq. ft. × R added × A B Rate	
4 Space constraint? Yes No	 A Area eligible sq. ft. Original R-value (include cavity R-value for exterior projects) B Added R-value eligible Final R-value 	sq. ft. × R added × A B Rate	

For projects that include replacement of original insulation, only the R-value

added above the original level of insulation will be eligible for a Rebate. Do not include above grade foundation or gable ends in exterior wall square footage.

Crawlspaces must have a below grade depth of less than two feet with a total height of less than four feet.

TOTAL ESTIMATED REBATE → Rebates for each insulated area will not exceed the \$ insulation material cost (including taxes) needed to meet the Program's final R-value requirements.



A post-verification inspection of the materials purchased and installed may be required prior to payment of a Rebate.

The Customer and the Contractor/Retailer must complete this form after the insulation is fully installed and paid for in full by the Customer.

Rebate payment information

Homeowner name(s)				
Cheque mailing address		 City/town	Province	Postal code
Project completion date:	yyyy mm dd		<u>.</u>	

Customer statement

I, the Customer, declare that the insulation noted on the Project Summary of this Application for which a Rebate is being applied for, has been fully installed to the levels required by Efficiency Manitoba to qualify for a Rebate. I declare that all Terms and Conditions of the Agreement set forth by Efficiency Manitoba have been, and will be, complied with. I declare that I have paid the total insulation material costs in full and any materials refunded or discounted have been identified and included within my invoice/receipt(s) and removed from the total material costs.

I, the Customer, understand that the estimated Rebate provided at the time of approval was calculated based on the formulas outlined in the Project Summary. However, Rebates for each insulated area will not exceed the insulation material cost (including taxes) needed to meet the Program's final R-value requirements. In cases where the estimated Rebate is higher than the cost of insulation materials installed, customers will receive the lesser of the estimated Rebate or the cost of the insulation materials.

Contractor/Retailer representative statement

I, the Efficiency Manitoba Registered Supplier (Contractor/Retailer) listed on this Application, have supplied and installed or sold the insulation materials for the Residence on the Application as outlined in the Project Summary according to the levels required by the Program, and as outlined in the Home Insulation Rebate Resource Guide for Contractors and Retailers. I declare that the invoice/ receipt(s) provided for this Application is the invoice/receipt(s) given to the Customer and the insulation material cost on the invoice/receipt(s) has been paid in full by the Customer.

Signed by (Customer)	уууу	mm	dd
Print name			

Signed by (Contractor/Retailer)	уууу	mm	dd
Print name			



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	
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 two 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") 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 Type 3 & 4 A foam plastic board composed of fine, closed cells containing a mixture of air and refrigerant gases (fluorocarbons) 	(5.08)
 Polyisocyanurate boards A foam plastic board with primarily closed cells filled with refrigerant gases (fluorocarbons) Usually foil-faced on both sides to strengthen the board and retain the gases which give it a high RSI-value 	(5.7)
Spray/blow in place insulation	
 Spray polyurethane foam A semi-flexible plastic foam manufactured on site using two liquid components Liquids are pumped through a hose and sprayed in place where they cure through a chemical reaction 	Medium density (5.19)
 Cellulose Made from paper or paper board stock with chemical additives for fire and fungal resistance Sprayed with water into a cavity to form a cohesive mat 	(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)