OWENS CORNING INSULATING SYSTEMS CANADA LP
GLASS FIBRE BLANKET INSULATION
07 21 16.16

INTRODUCTION - TECHNICAL SPECIFICATIONS

This specification Section is used to describe PINK™ glass fibre blanket thermal insulation manufactured by ***Owens Corning Insulating Systems Canada LP*** **(Owens Corning Canada)** and distributed under the name **EcoTouch® PINK™ FIBERGLAS® Insulation.**

Filing, Organization and Formatting

07 21 16.16 – GLASS FIBRE BLANKET INSULATION

This Section is also organized into three Parts and formatted like all other National Master Specification (NMS) Sections which are used by the majority of specifications writers in Canada.

Recommendations for the Use of Certain Tools

The SPEC NOTES printed in italic are used as a checklist or guide to the specifications writer in order to help him/her make the right decisions. The SPEC NOTES must be suppressed before printing the document.

The brackets [ ], with or without text, help the writer choose materials, products, references and other possibilities at his disposal. The brackets must be suppressed, including all choices not retained, before printing the document.

Professional Responsibility of the Specifications Writer

Owens Corning Canada publishes this document for information only and cannot in any way assume the role or the professional responsibility of the architect who must sign and seal his Drawings and Specifications.

This document, although written by experienced professionals, must not be copied in whole. It must be adapted or even modified to suit the particular needs of your Project. Our regional technical support representatives and our Engineering Services will be pleased and honoured to assist you with this.

NOTE TO THE READER: This Section **07 21 16.16** – **GLASS FIBRE BLANKET INSULATION** has been renumbered and re-titled to meet the recommendations of the MasterFormat classification system. This new number and title is more specific than the 2005 National Master Specification (NMS) classification which is 07 21 16 – BLANKET INSULATION (previously numbered 07213).

Part 1 General

1.1 SECTION INCLUDES

.1 Glass fibre blanket thermal insulation installed at the following building locations:
- .1 Above ground [steel stud framed] [wood stud framed] exterior walls.
- .2 Interior side of below ground foundation walls, with [steel (Z bars) (furring)][wood furring].
- .3 Floors above unheated [exterior spaces] [and] [crawl spaces].

.4 Ventilated roof spaces (or attics) above flat or sloped ceilings.
.5 [Steel stud framed] [Wood stud framed] roof parapets and curbs.
.6 Cathedral ceilings.
.7 [Steel stud framed] [Wood stud framed] interior partitions separating heated spaces from [unheated] [refrigerated] spaces.

1.2 RELATED SECTIONS

.1 Section [07 21 13.13 – Polystyrene Board Thermal Insulation]
.2 Section [07 21 16.19 – Batt Glass Fibre Thermal Insulation]
.3 Section [07 26 00 – Vapour Retarders]
.4 Section [[07 22 16 – Roof insulation]
.5 Section [07 27 23.13 – Polystyrene Board Air Barrier]
.6 Section [09 81 16.16– Glass Fibre Acoustic Batt Insulation]

1.3 REFERENCES

.1 Underwriters' Laboratories of Canada (ULC):
.1 CAN/ULC-S702, Thermal Insulation, Mineral (Glass) Fibre, for Buildings. (Supersedes CSA A101-M1983)
.2 CAN/ULC-S102, Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies
.3 CAN/ULC-S102.2, Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings and Miscellaneous Materials and Assemblies
.4 CAN4-S114, Standard Method of Test for Determination of Non-Combustibility in Building Materials
.5 CAN/ULC-S604, Type A Chimneys

.2 American Society for Testing and Materials International, (ASTM):
.1 ASTM C518, Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
.2 ASTM C553, Specification for Mineral (Glass) Fiber Blanket Thermal Insulation for Commercial and Industrial Applications
.3 ASTM C665, Specification for Mineral (Glass) – Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing
.4 ASTM C1320, Standard Practice for Installation of Mineral (Glass) Fiber Batt and Blanket Thermal Insulation for Light Frame Construction
.5 ASTM C1338, Standard Test Method for Determining Fungi Resistance of Insulation materials and Facings

.3 Canadian Standards Association (CSA / CSA International):
.1 CSA B111, Wire Nails, Spikes and Staples

.4 National Research Council (NRC) of Canada / Institute for Research in Construction (IRC) - Canadian Construction Materials Centre (CCMC):
.1 CCMC Product Listing Number 05650-L

.5 Canadian Gas Association (CGAI):
.1 CAN/CSA-B149.1HB, Natural Gas and Propane Installation Code Handbook
.2 CAN/CSA-B149.2, Propane Storage and Handling Code

.6 Health Canada/Workplace Hazardous Materials Information System (WHMIS):
.1 Visit www.owenscorning.ca for a current copy of the Material Safety Data Sheet (MSDS) for *Low Density Fiber Glass Insulation - unfaced*.

1.4 SUBMITTALS

.1 Submit product data in accordance with Section [01 33 00 - Submittal Procedures] [01 47 15 – Sustainable Requirements: Construction].

.2 Submit proof of manufacturer's CCMC Listing and Listing number to [Engineer] [Consultant].

.3 Submit environmental certificates issued by the independent agencies listed in article 1.5 QUALITY ASSURANCE and the evaluation of the contribution of the product[s] towards obtaining LEED® Canada NC and CS credits.

.4 Submit WHMIS MSDS – Material Safety Data Sheets in accordance with Section [02 61 33 – Hazardous Materials]. Indicate VOC content.

.5 Submit one [two] sample[s] in accordance with Section [01 33 00 - Submittal Procedures] [01 47 15 – Sustainable Requirements: Construction].

1.5 QUALITY ASSURANCE

.1 Identification: Each bag of insulation shall be labelled with the information listed in Data Sheet 07 21 16.16.OCC *PINK™ FIBERGLAS®* defined from CAN/ULC-S702.

.2 Environmental certification by an independent agency:

.1 Submit the "GREENGUARD Standard for Low Emitting Products Certified" certificate issued by the GREENGUARD Environmental Institute (GEI) certifying that the prescribed glass fibre blanket thermal insulation meets low emission requirements of VOC contained in the tested product; web site: www.greenguard.org.

.2 Submit the certificate issued by the Scientific Certification Systems (SCS) certifying that the prescribed glass fibre blanket thermal insulation meets the minimum claimed recycled materials content; web site: www.scscertified.com.

.3 The certificates shall include the following details: certificate number, duration of the certification and all restrictions issued by the certification agency for the product, as applicable.

.3 Contribution of the glass fibre blanket thermal insulation to the *LEED* certification of the building Project:

.1 Categories and performance criteria to obtain credits, as established by the Canadian **Green Building Council Rating System LEED® CANADA NC and CS:**

.1 Energy and Atmosphere (EA): credit 1 for the optimization of new or existing building energy performance.

.2 Materials and Resources (MR): credit 4 for post-industrial and post-consumer recycled materials content.

.3 Materials and Resources (MR): credit 5 for locally or regionally produced materials.

.4 Material Disclosure and Assessment (MR PC 61):
The intent is to increase the use of products and materials with life cycle, ingredients, and attributes understood and optimized to improve overall environmental, economic, and social performance.

.5 Innovation & Design Process (ID): credit 1 dependent on effectiveness of innovation being applied (The acoustical performance of glass fibre blanket thermal insulation is effective in reducing noise transfer through building assemblies).

1.6 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle glass fibre blanket thermal insulation in accordance with manufacturer's printed instructions.

.2 Store materials in their original packaging in a dry interior location.

.3 Protect materials from the weather and store at a temperature and a relative humidity recommended by the manufacturer.

1.7 WASTE MANAGEMENT AND DISPOSAL

.1 Separate waste materials for [reuse] [and] [recycling] in accordance with Section [01 74 19 – Construction/Demolition Waste Management and Disposal].

.2 Remove from site and dispose of packaging materials at appropriate recycling facilities.

.3 Collect and separate for disposal [paper] [plastic] [polystyrene] [corrugated cardboard] packaging material [in appropriate on-site bins] for recycling in accordance with Waste Management Plan.

1.8 SITE ENVIRONMENTAL REQUIREMENTS

.1 Apply insulation only when the ambient climatic conditions (risk of rainfall, high humidity levels) and the temperature of surfaces to be insulated are within acceptable limits to prevent risk of condensation.

.2 Safety: Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of insulation materials.

.3 Protection

.1 Ensure applicator's personnel wears protection equipment such as breathing masks (dust-proof type masks prescribed in Product Data Sheet), face and eye protection (safety goggles or eye glasses) and skin protection (gloves, long-sleeved shirts and pants).
.2 Provide temporary enclosures to prevent dust from contaminating air beyond application area.
.3 Protect adjacent surfaces and equipment from damage by fall-out and dust.

Part 2 Products

2.1 BLANKET INSULATION

.1 Glass Fibre Thermal Insulation
.1 To CAN/ULC-S702, type 1, unfaced blanket thermal insulation;
.2 Thermal resistance: in accordance with manufacturer's tested performances and to requirements of ASTM C518
1 [___ / 25 mm thickness] [Required RSI as indicated on the Drawings]
.3 Surface burning characteristics to CAN/ULC-S102:
1 flame spread: 0
2 smoke developed: 0
.4 Surface burning characteristics to CAN/ULC-S102.2:
1 flame spread: 0
2 smoke developed: 0
.5 Smoulder resistance: to ULC S-129

.6 Non-combustible: to CAN4-S114
7. Formaldehyde-free formulation
.8 Does not support mold growth: meets fungal resistance criteria in ASTM C1338
.9 Non-corrosive: meets corrosion resistance criteria in ASTM C665

2.2 ENVIRONMENTAL CERTIFICATION

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.1 Certified post-industrial and post-consumer recycled materials content:
  .1 73%, certified in accordance with the Scientific Certification Systems (SCS) *Environmental Claims Certification:*
    .1 9% “post-industrial” (or *pre-consumer*) recycled materials content; average for all North American manufacturing facilities;
    .2 64% “post consumer” recycled materials content;
  .2 SCS Certification *Certificate of Achievement*: manufactured by Owens Corning Canada (various forms and sizes). For up-to-date Certification Information, go to www.scscertified.com.

.2 Owens Corning Canada EcoTouch PINK™ FIBERGLAS® Blanket Thermal Insulation is GREENGUARD Indoor Air Quality Certified℠ to meet stringent air-quality standards:

  .1 GREENGUARD Product Emission Standard for Children & Schools:

.1	Individual VOCs	< 1/100 TLV and < ½ CA chronic RE
.2	Formaldehyde	< 0.0135 ppm/13.5 ppb
.3	Total VOCs	< 0.22 mg/m³
.4	Total Aldehydes	< 0.043 ppm/43 ppb
.5	Total Phthalates	< 0.01 mg/m³
.6	Total Particles (< 10µm)	< 0.02 mg/m³

  .2 *GREENGUARD Indoor Air Quality Certified* Certification: Owens Corning EcoTouch PINK™ FIBERGLAS® Blanket Thermal Insulation. For up-to-date Certification Information, go to www.greenguard.org.

.3 Selected product: Owens Corning Canada EcoTouch PINK™ FIBERGLAS® Blanket Thermal Insulation.

2.3 ACCESSORIES

.1 Attic (roof-space) baffles to prevent blanket thermal insulation from blocking air circulation at the eaves:
  .1 rigid extruded polystyrene baffles;
  .2 selected product: «*raft-R-mate*®» attic vents by Owens Corning.

Part 3 Execution

3.1 WORKMANSHIP – GENERAL

.1 Compliance: comply with manufacturer's written data, including product Technical Bulletins, Product Catalogue installation instructions, product carton installation instructions, and Product Data Sheets.

.2 Examine installation conditions: ensure adjacent and support materials and products are dry and ready to receive the insulation, and that mechanical and electrical services to be covered by the insulation have been inspected.

.3 Do not commence installation until base work has been corrected and inspections completed.

3.2 INSULATION INSTALLATION

.1 Install insulation to maintain continuity of thermal protection to building elements and spaces.

.2 Wall, parapets, curbs and partitions: select blanket dimensions for [steel] [wood] stud spacing for friction fit.

.3 Ceilings and attics: insert insulation blankets between [joists] [cathedral ceiling rafters] and use wire mesh [perforated metal straps] to maintain insulation in place where no interior finish is provided.

.4 Install rigid polystyrene baffles and ensure no obstacle impedes free air circulation where ventilation is required.

.5 Carefully fit blanket insulation as follows:

- .1 In wall cavities: install insulation so that it is in continuous contact with the inside face of the exterior sheathing material.
- .2 In flat or sloped roof spaces or between cathedral ceiling rafters: provide minimum 2 ½ in. ventilated air space between cold side of insulation and roof deck above.
- .3 Fit insulation closely around electrical boxes, pipes, ducts, frames and other objects in or passing through insulation.

.6 Do not compress insulation to fit voids.

.7 Keep insulation minimum 75 mm from heat-emitting devices, such as recessed light fixtures (which are not IC rated), and minimum 50 mm from sidewalls of CAN/ULC-S604 chimneys and CSA-B149.1 and CSA-B149.2 type B and L vents.

.8 Do not enclose insulation until it has been inspected and approved by [Engineer] [Consultant] [building inspector] [other].

3.3 CLEANING

.1 Upon completion of installation, remove surplus materials, rubbish, tools and safety barriers. Leave work area ready for application of interior finish.

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Publication # 200025F
Printed in Canada November 2013