



DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

Section: 07 21 00—Thermal Insulation

REPORT HOLDER:

OWENS CORNING THERMAFIBER, INC.

EVALUATION SUBJECT:

THERMAFIBER® INSULATION PRODUCTS: THERMAFIBER® SAFB™ SOUND CONTROL INSULATION; THERMAFIBER® SAFB™ FF SOUND CONTROL INSULATION; THERMAFIBER® SAFING™ INSULATION; THERMAFIBER® SAFING™ FF INSULATION; THERMAFIBER® FIRESpan® 40 AND 90 CURTAIN WALL INSULATION; THERMAFIBER® FIRESpan® 40 AND 90 FF CURTAIN WALL INSULATION; THERMAFIBER® RAINBARRIER® 45 AND HD CONTINUOUS INSULATION; THERMAFIBER® ULTRABATT™ EXTERIOR WALL INSULATION; THERMAFIBER® ULTRABATT™ FF EXTERIOR WALL INSULATION; THERMAFIBER® TOPSTOP® HEAD-OF-WALL INSULATION; THERMAFIBER® VERSABOARD® COMMERCIAL INSULATION; THERMAFIBER® FIRE & SOUND GUARD™ INSULATION; THERMAFIBER® FIRE & SOUND GUARD™ FF INSULATION; THERMAFIBER® INSUL-FILL™ INSULATION; THERMAFIBER® FABRICATION BOARD INSULATION; AND THERMAFIBER® MINERAL WOOL CI-C BOARD INSULATION

1.0 EVALUATION SCOPE

Compliance with the following environmental criteria:

ICC-ES Environmental Criteria for Determination of Recycled Content of Materials (EC101), dated March 2012.

Compliance eligibility with the applicable sections of the following codes, standards and green building rating systems:

- 2015 and 2012 *International Green Construction Code™* (IgCC) (see Table 2 for details)
- 2016 California Green Building Standards Code (CALGreen), Title 24, Part 11 (see Table 3 for details)
- ASHRAE Standard 189.1 – 2014 and 2009 (see Table 4 for details)
- National Green Building Standard (ICC 700-2015, 2012 and 2008) (see Table 5 for details)

- LEED 2009 for New Construction and Major Renovations (see Table 6 for details)
- LEED 2009 for Schools New Construction and Major Renovations (see Table 7 for details)
- LEED 2009 for Core and Shell (see Table 8 for details)
- ANSI/GBI 01-2010, Green Building Assessment Protocol for Commercial Buildings (see Table 9 for details)
- CSI GreenFormat™ (see Table 10 for details)

2.0 USES

Thermafiber® insulation products are used as nonstructural thermal-insulating material on or within floors, floor-ceiling assemblies, attics, crawl spaces, walls and partitions.

3.0 DESCRIPTION

Thermafiber® insulation products consist of a mixture of volcanic rock, slag, natural rock, various binders and oil. The insulations are available in loose-fill, batt and board form and are produced with a range of recycled content based upon customer needs. The type and amount of recycled content available is set forth in Table 1 of this report.

4.0 CONDITIONS

4.1 Code Compliance:

Evaluation of the Thermafiber® insulation products noted in this report for compliance with the IBC and/or IRC is outside the scope of this evaluation report. Evidence of compliance must be submitted by the permit applicant to the Authority Having Jurisdiction (AHJ), for approval.

4.2 Codes, Standards and Green Rating Systems Eligibility:

The information presented in Tables 2 through 10 of this report provides a matrix of areas of evaluation and corresponding limitations and/or additional project-specific requirements, and offers benefit to individuals who are assessing eligibility for compliance, credits or points.

The final interpretation of the specific requirements of the respective codes, standards and/or green building rating systems rests with the Authority Having Jurisdiction, the developer of the specific standard of rating system, as applicable.

Compliance with the items noted as “Verified Attribute” is subject to any conditions noted in Tables 2 through 10. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and

the verification of those conditions is outside the scope of this report. Rating systems or standards may provide supplemental information as guidance.

The total percentage of recycled content reported is based upon assigning an equal value for each type of recycled content used in accordance with IgCC Section 505.2.2, ICC 700 Section 604.1 and ANSI/GBI 01-2010 Section 10.1.2. Where the recycled content values are used for determination of compliance with requirements other than the IgCC, ICC 700 and ANSI/GBI 01, the total percent of recycled content must be calculated in accordance with the percentage requirements stated in that document.

Due to the variability of costs and volume, the recycled content percentage listed in this report is based upon weight (mass). The use of cost or volume as the method for calculation is outside the scope of this report.

5.0 BASIS OF EVALUATION

The information in this report, including any "Verified Attribute," is based upon the ICC-ES Environmental Criteria for Determination of Recycled Content of Materials (EC101). (Evaluation applies to IgCC Section 505.2; CALGreen Sections A4.405.3 & A5.405.4; ASHRAE 189.1 Section 9.4.1.1; ICC 700 Section 604.1; LEED NC Credit

MR 4; LEED Schools Credit MR 4; LEED C&S Credit MR 4; ANSI/GBI 01-2010 Section 10.2.1.1; CSI GreenFormat Section 2.3.3.)

6.0 IDENTIFICATION

6.1 Each package of Thermafiber® insulation products is identified by a label bearing the Owens Corning Thermafiber, Inc. name and address, product name, manufacturing date, manufacturing location (Wabash, Indiana or Joplin, Missouri) and the Environmental Report number (VAR-1025).

6.2 The report holder's contact information is the following:

OWENS CORNING THERMAFIBER, INC.
3711 MILL STREET
WABASH, INDIANA 46992
(260) 563-2111, EXT. 98229
technicalservice@owenscorning.com
www.thermafiber.com

TABLE 1—RECYCLED CONTENT BY WEIGHT SUMMARY

PRODUCT NAME	% PRE-CONSUMER RECYCLED CONTENT		% POST-CONSUMER RECYCLED CONTENT	% TOTAL RECYCLED CONTENT
	Standard Fiber	EPA Choice Fiber		
Thermafiber® SAFB™ Sound Control Insulation	70	N/A	0	70
Thermafiber® SAFB™ FF Sound Control Insulation	70	N/A	0	70
Thermafiber® Safing™ Insulation	70	N/A	0	70
Thermafiber® Safing™ FF Insulation	70	N/A	0	70
Thermafiber® FireSpan® 40 and 90 Curtain Wall Insulation	70	75	0	70 - 75
Thermafiber® FireSpan® 40 and 90 FF Curtain Wall Insulation	70	75	0	70 - 75
Thermafiber® UltraBatt™ Exterior Wall Insulation	70	N/A	0	70
Thermafiber® UltraBatt™ FF Exterior Wall Insulation	70	N/A	0	70
Thermafiber® RainBarrier® 45 and HD Continuous Insulation	70	75	0	70 - 75 ¹
Thermafiber® TopStop® Head-of-Wall Insulation	70	75	0	75
Thermafiber® VersaBoard™ Commercial Insulation	70	75	0	70 - 75 ¹
Thermafiber® Fire & Sound™ Insulation	70	N/A	0	70
Thermafiber® Fire & Sound™ FF Insulation	70	N/A	0	70
Thermafiber® Insul-Fill™ Insulation	70	N/A	0	70
Thermafiber® Fabrication Board Insulation	70	N/A	0	70
Thermafiber® Mineral Wool CI-C Board Insulation	70	N/A	0	70

Note:

¹The values represent the minimum and maximum range of available recycled content for the products. The actual recycled content amount for the products provided to the end user depends on the product formulation requested by the customer.

TABLES 2 THROUGH 10

Section Number	Section Intent	Possible Points	Conditions Of Use To Qualify For Points	Finding
TABLE 2—SUMMARY OF AREA OF ELIGIBILITY WITH THE 2015 & 2012 INTERNATIONAL GREEN CONSTRUCTION CODE				
505.2.2	Recycled content building materials.	N/A	Recycled content building materials shall comply with one of the following: 1. Contain not less than 25 percent combined post-consumer and pre-consumer recovered material, and shall comply with section 505.2.3 2. Contain not less than 50 percent combined post-consumer and pre-consumer recovered material.	•
TABLE 3—SUMMARY OF AREA OF ELIGIBILITY WITH THE 2016 CALGREEN				
A4.405.3 A5.405.4	Recycled content	N/A	To achieve Tier 1 – Use materials, equivalent in performance to virgin materials, with a postconsumer or preconsumer recycled content value (RCV) for a minimum of 10% of the total value, based on estimated cost of materials on the project. To achieve Tier 2 – Use materials with a postconsumer or preconsumer RCV for a minimum of 15% of the total value, based on estimated cost of materials on the project. RCV shall be determined as follows: RCV = (% PC X material cost) + 0.5 (% PI X material cost) Notes: 1. PC means post-consumer waste. 2. PI means post industrial waste.	•
TABLE 4—SUMMARY OF AREA OF ELIGIBILITY WITH ASHRAE 189.1-2014 & 2009				
9.4.1.1	Recycled Content	Prescriptive Option	The sum of post-consumer recycled content plus one-half of the pre-consumer recycled content shall constitute a minimum of 10%, based on cost, of the total materials in the building project.	•
TABLE 5—SUMMARY OF AREA OF ELIGIBILITY WITH THE NATIONAL GREEN BUILDING STANDARD (ICC 700-2015, 2012 & 2008)				
604.1	Use two or more major and/or minor building materials containing recycled content	1 3 max	1, 2 or 3 points may be earned when products are used with another minor building component with recycled content of 25% < 50%; 50% < 75%; or ≥ 75%, respectively. Each Thermafiber insulation can qualify for 3 points	•
TABLE 6—SUMMARY OF AREA OF ELIGIBILITY WITH USGBC'S LEED 2009 FOR NEW CONSTRUCTION				
MR 4	Recycled content	1 2 max	To earn 1 point use materials with recycled content such that the sum of postconsumer recycled content plus 1/2 of the preconsumer content constitutes at least 10%, based on cost, of the total value of the materials in the project. To earn 2 points use 20% or more.	•
TABLE 7—SUMMARY OF AREA OF ELIGIBILITY WITH USGBC'S LEED 2009 FOR NEW CONSTRUCTION				
MR 4	Recycled content	1 2 max	To earn 1 point use materials with recycled content such that the sum of postconsumer recycled content plus 1/2 of the preconsumer content constitutes at least 10%, based on cost, of the total value of the materials in the project. To earn 2 points use 20% or more.	•
TABLE 8—SUMMARY OF AREA OF ELIGIBILITY WITH USGBC'S LEED 2009 FOR CORE & SHELL				
MR 4	Recycled content	1 2 max	To earn 1 point use materials with recycled content such that the sum of postconsumer recycled content plus 1/2 of the preconsumer content constitutes at least 10%, based on cost, of the total value of the materials in the project. To earn 2 points use 20% or more.	•
TABLE 9—SUMMARY OF AREA OF ELIGIBILITY WITH ANSI/GBI 01-2010				
10.1.2	Materials content - Assemblies	1 8 max	Recycled post-consumer or post-industrial (pre-consumer) content materials accounted for 1% to 20% or more of building materials. Percentage is calculated as 100 x A (total cost or weight of recycled content materials) ÷ B (total cost or weight of all building materials)	•
TABLE 10—SUMMARY OF AREA OF ELIGIBILITY WITH CSI GREENFORMAT™				
2.3.3	Recycled content	N/A	This category relates to LEED rating system points.	•

• = Verified attribute