

Environmental Choice^M Program

CERTIFICATION CRITERIA DOCUMENT

CCD-017



Product: Acoustical Construction Products

Preamble

Pursuant to paragraph 54 (1)(b) of the *Canadian Environmental Protection Act, 1999*, the Minister of the Environment is pleased to publish the following national guideline on **acoustical construction products** under the auspices of the Environmental Choice^M Program.

The Environmental Choice Program is designed to support a continuing effort to improve and/or maintain environmental quality by reducing energy and materials consumption and by minimizing the impacts of pollution generated by the production, use and disposal of goods and services available to Canadians.

There are many acoustical construction products on the market such as acoustical insulation, ceiling tiles, glass fibre board and mineral composition board. Approximately 19 million square meters of ceiling tiles alone are sold annually in Canada. Changes in lifestyle are having an impact on the tolerable sound level in the home. For example, there is an increase in apartment buildings and condominiums where party walls exist and sound transmission control is required.

Requiring minimum percentages of recycled content in acoustical construction products will reduce the amount of materials entering the waste stream. In addition it will reduce the total resource consumption through the recycling of natural resources.

Based on a review of currently available life cycle information, the product category requirements will produce an environmental benefit through **resource conservation and reduction of waste entering the landfill**.

Life cycle review is an ongoing process. As information and technology change, product category requirements will be reviewed and possibly amended.

The Minister of the Environment anticipates that manufacturers or importers of **acoustical construction products** which conform to this guideline will apply to the Environmental Choice Program for verification and subsequent authority to label the qualifying products with the Environmental Choice EcoLogo.

Notice

Any reference to a standard means to the latest edition of that standard.

Interpretation

1. In the following guideline:

"acoustical construction products" means materials designed to provide sound absorption and/or reduced sound transmission;

"batt" means a portion of a mat in the form of rectangular piece generally between 1 and 3 metres in length and usually supplied flat or folded;

"ceiling tiles (panels)" means ceiling tiles (panels) made from glass fibre, mineral composition, or cellulose fibre;

"cellulose (wood fibre) ceiling tiles (panels)" means a tile that must contain more cellulose fibre than any other fibre;

"cellulose acoustical construction products" means loose fill cellulose and spray cellulose manufactured from some types of paper products (wood fibre);

"consumer" means a household, commercial establishment or institutional facility;

"fibrous insulation" means mineral wool, glass fibre and cellulose (wood) fibre insulation material;

"glass fibre" means all glass wool products;

"glass fibre board" means a board that must contain more glass fibre than any other fibre;

"glass fibre ceiling tiles (panels)" means a tile (panel) that must contain more glass fibre than any other fibre;

"industrial scrap" means by-products of an industrial process that can be, and regularly are, used in either the same process, or in a different process. Such materials are excluded from the standard definition of recycled material;

"loose fill material" means fibre granules, nodules, or similar forms of material designed to be installed by hand pouring or blowing by pneumatic equipment. This includes loose fill cellulose fibre, loose fill glass fibre and loose fill mineral wool;

"mat" means flexible fibrous insulation supplied in the form of a roll or a batt, which may be faced but not enclosed;

"mineral composition ceiling tiles (panels)" means a tile (panel) that must contain more mineral material than cellulose fibre or any other fibre;

"mineral composition board" means rock wool or slag wool products or a combination of both;

"newsprint" means paper having a surface density of 40 g/m² - 57 g/m², generally used in the publication of newspapers. It includes both post-consumer and pre-consumer materials;

"noise reduction coefficient" (NRC) means a single number rating that is the average of the sound absorption coefficients of a material for 250, 500, 1000, and 2000 Hz rounded to the nearest multiple of 0.05;

"paper products" means newsprint, fine paper and clay-coated paper;

"post-consumer material" means a product which has served its end-use at the consumer level, has been

discarded by the consumer, and would, unless diverted, enter the waste stream;

"pre-consumer material" means materials generated by an industrial process that would, unless diverted, enter the waste stream. This includes, but is not limited to, damaged or defective materials, overstock or obsolete inventories from manufacturers, distributors, and wholesalers. It does not include industrial scrap;

"recycled material" means post-consumer material and pre-consumer material. It does not include industrial scrap, except that proportion of the scrap which originated as post-consumer material and pre-consumer material;

"slag" means pre-consumer waste material generated from the smelting industry;

"sound transmission class" (STC) means a single number rating intended to rate the acoustical performance of a partition element under typical conditions involving office or dwelling separation;

"spray-on cellulose" means a coating of acoustical material applied to a surface by spraying.

Category Definition

2. This category includes all **acoustical construction products** as further defined in the sub-categories in this section. The sub-categories are:

- (a) ceiling tiles (panels);
- (b) loose fill, spray-on, and batt acoustical products; and
- (c) acoustical board products.

Note: Other sub-categories may be added at a later date.

General Requirements

3. To be authorized to carry the EcoLogo **acoustical construction products** must:

- (a) meet or exceed all applicable governmental and industrial safety and performance standards; and
- (b) be manufactured and transported in such a manner that all steps of the process including the disposal of waste products arising therefrom will meet the requirements of all applicable governmental acts and regulations including the *Canadian Environmental Protection Act* (CEPA).

Product Specific Requirements

4. To be authorized to carry the EcoLogo all sub-categories of **acoustical construction products** must:

- (a) not require being labelled as poisonous, corrosive, flammable or explosive under the *Consumer Chemical and Container Regulations of the Hazardous Products Act*;
- (b) be accompanied by detailed instructions for proper handling and installation so as to minimize health concerns.

5. To be authorized to carry the EcoLogo the **acoustical construction product** must meet criteria specific to its sub-category.

5.1 **Ceiling tiles** (panels) must:

- (a) contain, when calculated on a 12-month rolling average:
 - (i) over 75% recycled material by weight of the finished product, if made from cellulose fibre,
 - (ii) prior to January 1, 1994, over 25% recycled material by weight of the finished product if made from glass fibre or mineral composition,
 - (iii) on or after January 1, 1994, over 35% recycled material by weight of the finished product if made from glass fibre or mineral composition;
- (b) comply with CGSB Standard CAN/CGSB-92.1 *Sound Absorptive Prefabricated Acoustical Units*;
- (c) be assigned a noise reduction coefficient (NRC) of at least 0.50 when tested on an E400 mounting in accordance with CAN/CGSB-92.1 *Sound Absorptive Prefabricated Acoustical Units*, or
- (d) be assigned a ceiling-plenum sound transmission class (STC) of at least 30, and a NRC of at least 0.30 in accordance with CAN/CGSB-92.1 *Sound Absorptive Prefabricated Acoustical Units*, and
- (e) utilize paint which meets the requirements of Environmental Choice Program guideline *ECP-07-89 Paints: Water Based*, if paint is used to coat the tiles (panels).

5.2 **Loose fill, spray-on and batt acoustical products** must:

- (a) contain, when calculated on a 12-month rolling average:
 - (i) over 75% recycled material by weight of the finished product, if made from cellulose fibre,
 - (ii) prior to January 1, 1994, over 25% recycled material by weight of the finished product if made from glass fibre,
 - (iii) on or after January 1, 1994, over 35% recycled material by weight of the finished product if made from glass fibre,
 - (iv) over 50% recycled material by weight of the finished products if made from mineral wool;
- (b) if trowel applied or spray-on material comply with CAN/CGSB-92.2 *Trowel or Spray Applied Acoustical Material*;
- (c) if made of cellulose fibre, comply with CAN/CGSB-51.60, *Thermal Insulation, Cellulose Fibre, Loose Fill*;
- (d) if made of glass fibre or mineral wool, comply with CAN/CSA-A101, *Thermal Insulation, Mineral Fibre for Buildings*;
- (e) provide an increase of at least 5 in the sound transmission class (STC) when tested in accordance with *ASTM E90 Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions* when installed in the cavities of a reference partition consisting of 90 mm studs of 25 gauge steel spaced 600 mm on centre with 13 mm thick gypsum board applied on both faces with screws at 300 mm centres; or

- (f) if intended for use as an absorptive surface treatment be assigned a noise reduction coefficient (NRC) of at least 0.40 when tested on mounting for A or B in accordance with ASTM C423 *Sound Absorption and Sound Absorption Coefficients* by the reverberation room method.

5.3 **Acoustical board products** must:

- (a) contain, when calculated on a 12-month rolling average:
 - (i) over 75% recycled material by weight of the finished product, if made from cellulose fibre,
 - (ii) prior to January 1, 1994, over 25% recycled material by weight of the finished product if made from glass fibre or mineral composition,
 - (iii) on or after January 1, 1994, over 35% recycled material by weight of the finished product if made from glass fibre or mineral composition;
- (b) provide an increase of at least 5 in the sound transmission class (STC) when tested in accordance with *ASTM E90 Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions* when installed between the gypsum wallboard and the studs on one side of a reference partition consisting of 38 X 89 mm wood studs spaced 600 mm on centre with 13 mm thick gypsum wallboard applied on both faces with screws at 300 mm spacing; or
- (c) be assigned a noise reduction coefficient (NRC) of at least 0.40 when tested on mounting A or B in accordance with ASTM C423 *Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method*.

Verification



- 6. To verify a claim that a product meets the criteria listed in the guideline, the Environmental Choice Program will require access, as is its normal practice, to relevant quality control and production records and the right of access to production facilities on an announced basis.
- 7. Compliance with section 3(b) shall be attested to by a signed statement of the Chief Executive Officer or the equivalent officer of the manufacturer. The Environmental Choice Program shall be advised in writing immediately by the licensee of any non-compliance which may occur during the term of the license. On the occurrence of any non-compliance, the license may be suspended or terminated as stipulated in the license agreement.

Licensing Conditions

- 8. The EcoLogo may appear on wholesale or retail packaging, or on the product itself, provided that the product meets the requirements in this guideline.
- 9. A criteria statement must appear with the EcoLogo whenever the EcoLogo is used in association with the **acoustical construction product**. The intent of this statement is to provide clarification as to why the product was certified and to indicate constraints to which the certification is limited. This is to ensure no ambiguity over, or misrepresentation of, the reason(s) for certification.

ECP required criteria statement wording for this product type is “over x% recycled material”, where “x” corresponds to the recycled content as specified in either 5.1, 5.2 or 5.3 of this guideline. The licensee may propose other wording for the criteria statement, but any such proposed wording must be approved by the Environmental Choice Program.

10. The criteria statement described in 9 above must be in accordance with the Environmental Choice Program's *Graphic Standards Manual*. All licensees and authorized users must also comply with the Environmental Choice Program's policies regarding the format and usage of the EcoLogo.
11. Any accompanying advertising must conform with the relevant requirements stipulated in this guideline, the license agreement and the Environmental Choice Program's *Graphic Standards Manual*.

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|  | <p>For more information about the EcoLogo™ Program, please direct your inquiry to: The EcoLogo™ Program 171 Nepean Street, Suite 400 Ottawa, ON, K2P 0B4 Phone: 1.800.478.0399 www.ecologo.org</p> |  |
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