

## Part B: Benchmarking Addendum

### Conventional loose-fill cellulose insulation

This is an addendum to a Part B or PCR to provide the additional rules needed to create an industry-wide product group EPD for benchmarking and making comparative claims. A product group consists of products that compete for/deliver the SAME function. Product group definitions use a functional performance requirement(s) that impacts/drives the potential environmental performance of the products as codified or specified in standards.

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<b>Other co(s) &amp; org(s) involved</b>	Advanced Fiber Technology, Fiberlite, International Cellulose Corporation
<b>Party responsible for collecting and averaging data</b>	Dan Lea, CIMA; Sustainable Minds

### Corresponding Part B / PCR

<b>Part B / PCR name</b>	Building Envelope Thermal Insulation EPD Requirements		
<b>Program operator</b>	UL Environment	<b>Expiration date</b>	4/10/2023

### Product group definition

When using a Sustainable Minds Part B, copy this section. When using a PCR from another program, create new.

Name	Thermal Insulation	CSI MasterFormat® #(s) or UNCPC(s)	CIMA
<b>Description</b> Define the types of products included in this product group	The product group includes all commercially available building envelope thermal insulation products, regardless of material type, including but not limited to: cellular glass, mineral fiber insulation (rock, slag or glass), cellulose-based insulation, textile-based insulation, and polymer-based insulation.		
<b>Existing PCRs, EPDs, TRs, or LCAs</b> This information will be used to identify additional rules for comparability	UL Thermal Insulation PCR Version 1.2 <i>GAF EnergyGuard™ NH Barrier Polyiso Insulation EPD (many EPDs use this PCR).</i>		

### Rule creation by CIMA/CIMAC

<b>Minimum participation</b>	(3) different manufacturing locations from no less than two (2) companies. 13 companies participated.
<b>Retroactive pathway requirements</b>	This environmental product declaration shall be open for additional participating companies three years from the effective date, provided that three or more additional companies have applied for inclusion in the report. The companies seeking to be added and the sponsoring associations, CIMA and CIMAC, shall share the cost of this update equally.
<b>Required impact categories for comparison</b>	For industry-wide EPDs intended to be used for comparisons, the industry-wide EPD shall specify global warming plus at least two of the other five impact categories provided in LEED v4 "Building product disclosure and optimization - environmental product declarations: option 2" to be used for comparison. The industry-wide EPD may specify additional impact categories to which they require comparison. The impact categories

	<p>should be selected based on EPD results normalized to national or regional per capita averages. The Part B Benchmarking Addendum shall be updated to reflect the chosen impact categories once selected.</p> <ol style="list-style-type: none"> <li>1. Global warming</li> <li>2. Ozone depletion</li> <li>3. Acidification</li> <li>4. Eutrophication</li> <li>5. Smog</li> </ol>
<b>Required or preferred background LCI data sets</b>	There are no background data sets that have particularly high impacts that need to be reviewed.
<b>LCIA method &amp; version #</b>	TRACI v2.1
<b>Threshold of performance improvement or reduction for each impact category</b> Based on quantitative uncertainty of IW EPD results	Global warming: 6.39E-01 – 7.85E-01 kg CO <sub>2</sub> eq (required by PCR) Acidification: 3.71E-03 – 5.40E-03 kg SO <sub>2</sub> eq (low variability) Smog: 4.32E-02 – 6.58E-02 kg O <sub>3</sub> eq (low variability)