Hyllinge, Sweden

21 June 2018

Environmental declaration for Opta E / Tech

The products included in this environmental declaration are acoustic glass wool panels made for sound absorbing ceilings, manufactured and sold by Saint-Gobain Ecophon AB as "Opta E / Tech".

This declaration contains self-declared values according to ISO 14021 and has not been assessed by a third-party.

All information in this declaration is based on LCA calculation in accordance with: EN 15804 for core Product Category Rules (PCR) as well as the International EPD System Product Category Rule (PCR) for constructions products and construction services (PCR 2012:01, version 2.0, 2015-03-03, appendix "SUB PCR "Acoustic ceilings").

Environmental declarations of construction products may not be comparable if they do not comply with EN 15804.

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Data allocation rules for declaration

DECLARED UNIT	1m² of acoustic celling panel.
FUNCTIONAL UNIT	1m² acoustic ceiling with sound absorption class A installed at an ODS of 200mm according to ISO 354.
SYSTEM BOUNDARIES	Cradle to gate: Mandatory stages = A1-3A This declaration covers the environmental impact of acoustic panels without grid or suspension system.
REFERENCE SERVICE LIFE (RSL)	50 years
CUT-OFF RULES	The use of cut-off criterion on mass inputs and primary energy at the unit process level (1%) and at the information module level (5%). Flows related to human activities such as employee transport are excluded. The construction of plants, production of machines and transportation systems are excluded since the related flows are supposed to be negligible compared to the production of the building product when compared at these systems lifetime level.
ALLOCATIONS	Allocation criteria are based on mass.

Description of the main components and materials for 1 m2 of product

PARAMETER	VALUE (WEIGHT IN %)	POST CONSUMER RECYCLED CONTENT
Product thickness	15 mm	-
Glass wool	**70%**	**70%**
Water based paint	**20%**	**-**
Glass tissue	**6,5%**	-
Water based glue	**3,5%**	**-**

Result of impact categories

Environmental impacts	Product stage A1 / A2 / A3		RESOURCE USE	Product stage A1 / A2 / A3
Global Warming Potential (GWP) - *kg CO$_2$ equiv/FU*	1,94		**Total use of renewable primary energy resources** (primary energy and primary energy resources used as raw materials) *MJ/FU*	25
Ozone Depletion (ODP) *kg CFC 11 equiv/FU*	2,65E-07		**Total use of non-renewable primary energy resources** (primary energy and primary energy resources used as raw materials) - *MJ/FU*	50
Acidification potential (AP) *kg SO$_2$ equiv/FU*	1,10E-02		**Use of net fresh wate**r - *m^3/FU*	2,74E-02
Eutrophication potential (EP) *kg (PO$_4$)$^{3-}$ equiv/FU*	1,46E-03		**Non-hazardous waste disposed** - kg/FU	0,29
Photochemical ozone creation (POPC) *kg Ethene equiv/FU*	6,86E-04			
Abiotic depletion potential for non-fossil resources (ADP-elements) - *kg Sb equiv/FU*	3,66E-07			

LCA model, aggregation of data and environmental impact are calculated from the TEAM™ software 5.2.

Raw materials and energy consumption, as well as transport distances have been taken directly from the manufacturing plant of Saint-Gobain Ecophon in 2013.

Summary of the LCA results are detailed on the following tables.

All results in the declaration are written in logarithmic base of ten.
*Reading example: 5.2E -03 = 5.2*10^{-3} = 0,0052.*