



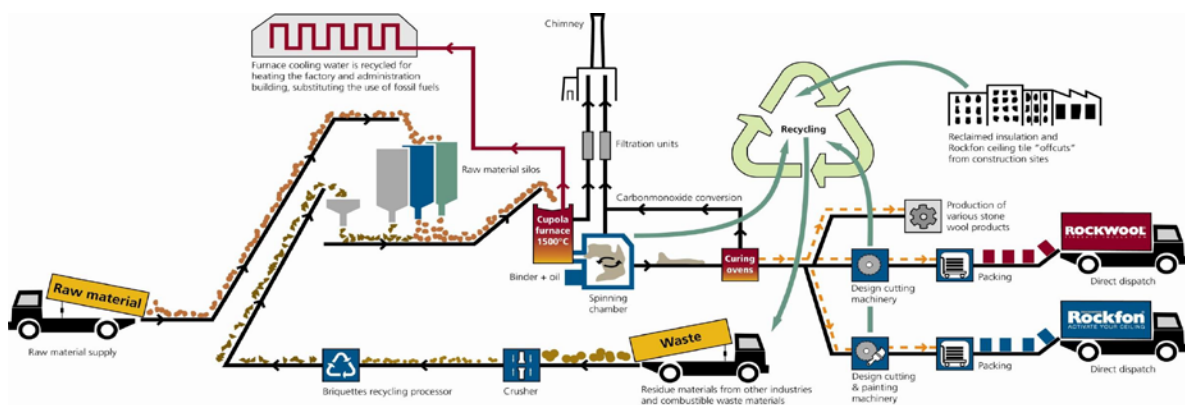
EN15804 Core EPD		All rights reserved.				11-30-2016
						Version 1.0. This version replaces earlier versions
Company	ROCKFON/ROCKWOOL International A/S Hovedgaden 501 DK-2640 Hedehusene tel. +45 56 21 22 www.rockfon.com					
For	Average ceiling tile in the density range 67-149 kg/m ³ with the results representing a 17 mm thick and 1.9 kg/m ² product The declared values represent an average product for the declared range. Product names included in the density range (67-149 kg/m ³) are: ROCKFON® Artic™, ROCKFON® Baffles, ROCKFON Blanka® dB 35, ROCKFON® Boxer™, ROCKFON® Contour™, ROCKFON® Ekla™ Bas, ROCKFON® Ekla™ dB 35, ROCKFON® Ekla™ Relief, ROCKFON® Ekla™ TH 40, ROCKFON® Ekla™ TH 80, ROCKFON® Facett™, ROCKFON® Fibril™, ROCKFON® Industrial™, ROCKFON® Koral™, ROCKFON® Krios™ (15 mm), ROCKFON® Krios™ Bas, ROCKFON® Krios™ dB 35, ROCKFON® Ligna™, ROCKFON® Lilia™, ROCKFON® Lithos™, ROCKFON® LOGIC™, ROCKFON® MediCare™ Air, ROCKFON® MediCare™ Royal, ROCKFON® MediCare™ Standard, ROCKFON® Mono™ Acoustic, ROCKFON® Opal™, ROCKFON Pacific®, ROCKFON® Pagos™, ROCKFON® Pallas™, ROCKFON® Paral™, ROCKFON® Polar/Crystal™, ROCKFON® Rockshed™, ROCKFON® Royal™, ROCKFON® Samson™, ROCKFON® Scholar™, ROCKFON® Sofit™, ROCKFON® Sonar™ dB 35, ROCKFON® Tropic™ dB 35, ROCKFON® VertiQ™ A and E edges only: ROCKFON Blanka®, ROCKFON Color-all®, ROCKFON® Ekla™, ROCKFON® Hydroclean™, ROCKFON® Hygienic™ Plus, ROCKFON® Hygienic™, ROCKFON® MediCare™ Plus, ROCKFON® Royal Hygiene™, ROCKFON® Tropic™ Impact of speciality foils/facings not included. Suspension grid is not included. Products are produced in Cigacicie (Poland), Roermond (Netherlands) and Saint Eloy les Mine (France). A weighted average is declared.					
Standard	Self-declared EPD based on the EN15804	Type:	Cradle-to-Gate			
Issue date	30-11-2016					
Valid until	29-11-2021					
Declared unit	1 square meter acoustic panels with a service life of 50 years					
Description	Thickness	Weight	α_w	Dnfw	Rw	
	17 mm	1.9 kg	0.5-1.0	35	19-22	
Remarks	Dnfw only representative for dB-products/Rw representative for dB products and ROCKFON® Mono™ Acoustic. EPDs of construction products may not be comparable if they do not comply with the EN15804 standard.					

Demonstration of verification	
EN15804 serves as core PCR	
Third party verification of the declaration, according to ISO 14025	
o Internal x External	
Third party verifier	
IVAM UvA B.V.	
As a general rule, a comparison or evaluation of EPD data is only possible when all of the data records to be compared have been drawn up in accordance with EN 15804 and the building context and/or product-specific performance features are taken into consideration.	

Product	
Product description	ROCKFON acoustic panels are intended for indoor use. The panels consist of a fire safe mineral wool core with a colored or painted facing. With no or little organic material, ROCKFON panels will stay flat in humid conditions and are naturally resistant towards microorganisms.
Product specification	ROCKFON acoustic panels are intended for indoor use. The panels consist of a fire safe mineral wool core with a colored or painted facing. With no or little organic material, ROCKFON panels will stay flat in humid conditions and are naturally resistant towards microorganisms.
Technical data	Product range: 67-149 kg/m ³ (112 kg/m ³ for the declared unit). Tile sizes range from 300 mm wide to 2400 mm long (1 m ² for the declared unit) Weight: 1.5 - 9.4 kg/m ² (1.9 kg/m ² for the declared unit). Please see manufactures literature for more information.
Market	Global. The declared values represent an average product for the declared range. A direct extrapolation of the EPD results by using the thickness and density of the mineral core is not possible because it does not reflect the variations in the facing and coatings. These variations do not scale to mass or density. The variation of the EPD results due to product variations for the declared range is greater than +/- 10%. Therefore, if scaling is performed by the ROCKFON customer according to the specifically purchased thickness and weight according to the declared unit (17 mm and 1.9 kg/m ²), the results can be considered a best guess. If you are a ROCKFON customer and require product specific results please contact your local ROCKFON resource.

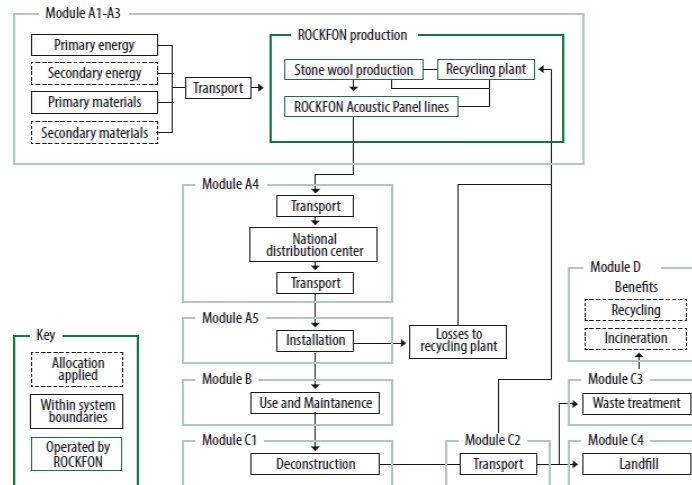
Materials	Amount
Resin bonded stone wool core	73-97%
Facings	1-15%
Water based paints	0-16%
Glue	0,01%

Declaration of material content	
Safety data sheet	In compliance with European chemicals regulation (REACH), ROCKFON acoustic ceiling solutions are defined as articles why a Safety Data Sheet is not required. The mineral wool core consists of fibres spun from melted minerals based on vulcanic mass, such as diabase or basalt, from recycled mineral wool and other secondary mineral resources. ROCKWOOL mineral wool is safe to use and carries the EUCEB label. For more information please contact your local ROCKFON resource.
Substances considered under European Chemicals Regulation REACH	The product contains no substances as listed in Annex XIV and Annex XVII of REACH regulation No 1907/2006 or the Norwegian priority list (A20).



System boundaries and flow diagram

The process tree for mineral wool (material and energy inputs smaller than 1% excluded from flow chart)



Note: the construction and use phase have not been considered

Environmental Parameter	Unit	Product stage	Delivery	Installation	Use and maintenance	End-of-life				Module D
Environmental profile	Unit	A1, A2, A3	A4	A5	B1 – B7	C1	C2	C3	C4	D
Global warming potential, GWP	kg CO2	4,36E+00	ND	ND	ND	ND	ND	ND	ND	ND
Depletion potential of the stratospheric ozone layer, ODP	kg CFK-11	5,06E-07	ND	ND	ND	ND	ND	ND	ND	ND
Acidification potential of land and water resources, AP	kg SO2	3,26E-02	ND	ND	ND	ND	ND	ND	ND	ND
Eutrophication potential, EP	kg PO43-	4,02E-03	ND	ND	ND	ND	ND	ND	ND	ND
Formation potential of tropospheric ozone photochemical oxidants, POCP	kg ethyl	4,82E-03	ND	ND	ND	ND	ND	ND	ND	ND
Depletion of abiotic resources, elements	kg Sb	7,98E-06	ND	ND	ND	ND	ND	ND	ND	ND
Depletion of abiotic resources, fossil fuels	MJ	8,09E+01	ND	ND	ND	ND	ND	ND	ND	ND
Resource input (use of)										
Renewable primary energy, excluding renewable resources used as raw materials	MJ, ncv	6,22E+00	ND	ND	ND	ND	ND	ND	ND	ND
Renewable primary energy resources used as raw materials	MJ, ncv	3,74E+00	ND	ND	ND	ND	ND	ND	ND	ND
Total renewable primary resources	MJ, ncv	9,96E+00	ND	ND	ND	ND	ND	ND	ND	ND
Non renewable primary energy, excluding resources used as materials	MJ, ncv	8,68E+01	ND	ND	ND	ND	ND	ND	ND	ND
Non renewable primary energy used as raw materials	MJ, ncv	4,45E+00	ND	ND	ND	ND	ND	ND	ND	ND
Total non renewable primary energy resources	MJ, ncv	9,13E+01	ND	ND	ND	ND	ND	ND	ND	ND
Secondary material	kg	8,54E-01	ND	ND	ND	ND	ND	ND	ND	ND
Renewable secondary fuels	MJ	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND
Non renewable secondary fuels	MJ	2,68E-03	ND	ND	ND	ND	ND	ND	ND	ND
Input of fresh water	m3	3,06E-01	ND	ND	ND	ND	ND	ND	ND	ND
Waste categories (disposed)										
Hazardous waste disposed	kg	3,93E+00	ND	ND	ND	ND	ND	ND	ND	ND
Non hazardous waste disposed	kg	4,12E+00	ND	ND	ND	ND	ND	ND	ND	ND
Radioactive waste disposed	kg	1,66E-01	ND	ND	ND	ND	ND	ND	ND	ND
Further output material flows										
Components for reuse	kg	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND
Materials for recycling	kg	1,44E-02	ND	ND	ND	ND	ND	ND	ND	ND
Materials for energy recovery	kg	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND
Exported electric energy	MJ	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND
Exported thermal energy	MJ	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND

Indoor air	
Considerations	There are no indoor air health quality related concerns for the use of the declared construction products.

ncv net calorific value

ND Not Declared

NR Not relevant

Additional environmental information not verified as part of the EPD	
Recycled content (preconsumer)	Recycled content of the stone wool core is 44%. Calculated according to ISO 14021. All recycled content calculated as post-industrial waste (Pre-consumer)
End-of-life	Extended Producer Responsibility Programs are operated locally by the ROCKWOOL factory or ROCKFON customer service in Denmark, Germany, France, the Netherlands and the UK. ROCKFON products can be recycled at any ROCKWOOL recycling facility.
Corporate Social Reporting	The ROCKWOOL group report on Corporate Social Responsibility is available www.rockwool.com
Environmental management Systems	All factories manufacturing ROCKFON panels are covered by a formalised environmental management system (EMS). The EMS in the factories located in Poland and Netherlands are certified under ISO 14001.

Product Health	
Emissions	ROCKFON acoustic ceiling tiles are certified low emission by one or more of the following schemes: Blauer Engel, M1, the Danish Indoor Climate label or the Singapore Green Building Council product certification scheme.
Mineral wool fibre	ROCKWOOL/ROCKFON Stone Wool fibres are certified to be in compliance with bio-solubility requirements in EU Directive 97/69/EC (Note Q) and exempt from carcinogenic classification according to the European Union regulations on classification, labelling and packaging of substances and mixtures (EC No 1272/2008 and No 790/2009). Coarse fibres can cause itching on skin or foreign body effect in the upper respiratory system (mucous membranes) and eyes. Physical effects will generally abate in short time after end of exposure and no chemical effects ensue. It is recommended to follow work practices as printed on ROCKFON packaging

Normative references			
EN ISO	354	2003	Acoustics - Measurement of sound absorption in a reverberation room
EN ISO	10140	2010	Acoustics – Laboratory measurement of sound insulation of building elements
EN ISO	11654	97/13	Acoustics - Sound absorbers for use in buildings - Rating of sound absorption
EN	13964	2004	Suspended ceilings. Requirements and test methods

Core EPD and ECO-Link calculation module compiled and designed by



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Product specific EPD modelled in ECO-link calculation module by

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