ENVIRONMENTAL PRODUCT DECLARATION

Gypsum based dry mixes

MP-75	**Fugenfuller**	**Baugips**
MP-75L	**Q-Filler**	**Elektrikergips**
Rotband	**Perlfix**	
Rotband Plus		
Goldband		

Version	1.0
Publication date:	2020-05-15
Valid until:	2025-05-15

In accordance with EN 15804+A1:2014 and ISO 14025:2006

INFORMATION

Third party verifier: Marcel Gómez, Marcel Gómez Consultoría Ambiental (www.marcelgomez.com) Email: info@marcelgomez.com
Procedure for follow-up of data during EPD validity involves third party verifier: ☐ Yes ☒ No

The EPD owner has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804.

COMPANY AND PRODUCT INFORMATION

COMPANY INFORMATION

Owner of the EPD:

KNAUF SIA
Daugavas street 4
Sauriesi, Stopinu novads.
Latvija LV2118
http://www.Knauf.lv

Contact person
Plant manager
Arnis Ivanovs
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Description of the organization: KNAUF SIA is multinational company headquarter at Iphofen in Germany, founded in 1932. It is one of the world's leading manufacturers of modern insulation materials, dry lining systems, plasters and accessories, thermal insulation composite systems, paints, floor screed, floor systems, and construction equipment and tools. KNAUF SIA is organized in more than 86 countries in 220 different sites worldwide.

KNAUF SIA in Latvia was founded in 1994 and account a cement plant and a gypsum board factory. They produce systems for walls and floors, cement for manual or mechanical application but also adhesives, silicones and household chemicals.

For additional information about KNAUF SIA in Latvia please visit the company web site at http://www.Knauf.lv.

Product-related or management system-related certifications: Declared products are manufactured in the KNAUF Sauriesi, Sotpinu novads plant in Latvia. Companie's management system of this plant is certified according to ISO 9001:2008, ISO 14001:2015, ISO 50001:2012 and OHSAS 18001:2007.

Name and location of production site KNAUF Sauriesi, Stopinu novads production plant in Latvia.

KNAUF Sauriesi, Stopinu novads production plant in Latvia

PRODUCTS INFORMATION

Product name:

This study covers the following references:

Gypsum plaster:

- MP-75
- MP-75L
- Rotband
- Rotband Plus
- Goldband

Gypsum putty and mouting glue:

- Fugenfuller
- Q-filler
- Perlfix

Mouting plaster:

- Baugips
- Elektrikergips

UN CPC code: 37530 Articles of plaster or of compositions based on plaster

Geographical scope:

- Manufactured in Latvia.
- Use in Baltic States (Estonia, Latvia, Lithuania) and Scandinavia.

Product description:

The declared plasterboard consist of gypsum-based dry mixes. They are bindable material ground to powder whose curing process is triggered by the addition of water. There are used in several areas of interior construction as basis for manufacturing gypsum plaster, gypsum filler, material and gypsum-based adhesives as well as for model plaster, stucco and fixing plaster.

Physical characteristics:

Product family	Declared products	Description			Technical characteristics		Application
	KNAUF gypsum-based dry mixes	Density of dry plaster (kg/m²)	Material requirements for 10 mm plaster thickness (kg/m²/10mm)	Finished product packed(kg)	Thermal conductivity W/(m.K)	Water vapor diffusion resistance μ	
Gypsum plaster	MP-75	~ 1050	~ 10.5	30	0.39 (EN ISO 12524)	10 (dry)/6 (wet) (EN ISO 12524)	Machine-applied gypsum plaster for interior walls and ceilings.
	MP-75L	~ 850	~8	30	0.34 (EN ISO 12524)	10 (dry)/6 (wet) (EN ISO 12524)	Machine-applied gypsum plaster for interior walls and ceilings.
	Rotband	~ 970	~ 8.7	5; 10; 16; 30	0.34 (EN ISO 12524)	10 (dry)/6 (wet) (EN ISO 12524)	Gypsum plaster with special lightweight aggregate additives for interior walls and ceilings.
	Rotband Plus	~ 900	~ 8	5; 10; 25	0.39 (EN ISO 12524)	10 (dry)/6 (wet) (EN ISO 12524)	Gypsum thin layer plaster with special additives for interior work.
	Goldband	~ 1020	~ 9	10; 30	0.34 (EN ISO 12524)	10 (dry)/6 (wet) (EN ISO 12524)	Gypsum plaster with special lightweight aggregate additives for interior walls and ceilings.

Product family	Declared products	Description			Technical characteristics		Application
	KNAUF gypsum-based dry mixes	Density of dry plaster (kg/m²)	Material consumption for 1 mm plaster thickness (kg/m²/10mm)	Finished product packed(kg)	Thermal conductivity W/(m.K)	Water vapor diffusion resistance μ	
Gypsum putty and mouting glue	Fugenfuller	~ 1000	0.3-1,2	5; 10; 25	0.34 (EN ISO 12524)	10 (dry)/6 (wet) (EN ISO 12524)	Surface and joints filler for gypsum plasterboards
	Q-Filler	~ 1000	0.3-1,2	5; 10; 25	0.34 (EN ISO 12524)	10 (dry)/6 (wet) (EN ISO 12524)	Filler of high quality for gypsum plasterboards surface.
	Perlfix	~ 1160	~ 5	12; 30	0.43 (EN ISO 12524)	10 (dry)/6 (wet) (EN ISO 12524)	Mounting adhesive for fixing plasterboards on a masonry or concrete wall.
Mouting plaster	Baugips	~ 1160	-	2.5; 5; 25; 35	0.43 (EN ISO 12524)	10 (dry)/6 (wet) (EN ISO 12524)	Construction gypsum for works inside the buildings.
	Elektrikergips	~ 1160	-	5	0.43 (EN ISO 12524)	10 (dry)/6 (wet) (EN ISO 12524)	Construction gypsum for wiring works inside the buildings.

LCA : CALCULATION RULES

DECLARED UNIT

Declared unit adopted for each declared products are: “To produce 1 kg of gypsum-based dry mixes in the respective delivery form (powder product, not mixed with water)”

REFERENCE SERVICE LIFE

According to EN 15805+A1:2014, as is a “cradle-to-gate” EPD no RSL (Reference service life) can be declared. The RSL is unspecified.

TIME REPRESENTATIVNESS

Primary data has been collected by KNAUF SIA during 2019. Secondary data has less than 10 years.

DATABASE AND LCA SOFTWARE USED

Databases used are BDD CODDE-2018-11, ELDC version 3.2 and Ecoinvent 3.0.1 Allocation at the point of substitution. The software used is EIME V5.8.1. Environmental indicators calculated according to EN 15804 (CML baseline model).

DESCRIPTION OF SYSTEM BOUNDARIES

As gypsum-based dry mixes are intermediate products, it is generally not possible to provide information about the environmental impacts of the products during the construction, the use and the end of life stages because they greatly depend on the gypsum-based end used. Hence a cradle-to-gate LCA is preferred for the plasterboard: including A1 to A3 stages.

Hence, as is not relevant for this kind of product, life cycle stages from A4 to D have been excluded.

The modularity and “polluter-pays” principles were followed.

Energetic consumption and waste production have been allocated per kg of dry product.

CUT-OFF CRITERIA

Flows that can be excluded from the study because of the difficulty of attributing them to a particular reference flow are the following:

- The lighting, heating, sanitation and cleaning of facilities
- The transportation of employees and the staff catering facilities.
- The manufacture and maintenance of production tools and infrastructures
- Flows from R&D, administrative, management, and marketing poles.

These flows have insignificant impacts.

The proportion of non-modelled elements is in compliance with the 1 % of renewable and non-renewable primary energy usage and the 1%-in-weight cut-off rule over the life-cycle considered. The total of neglected input flows per module, e.g. per module A1-A3 shall be a maximum of 5 % of energy usage and mass.

ADDITIONAL ENVIRONMENTAL INFORMATION

About the company:

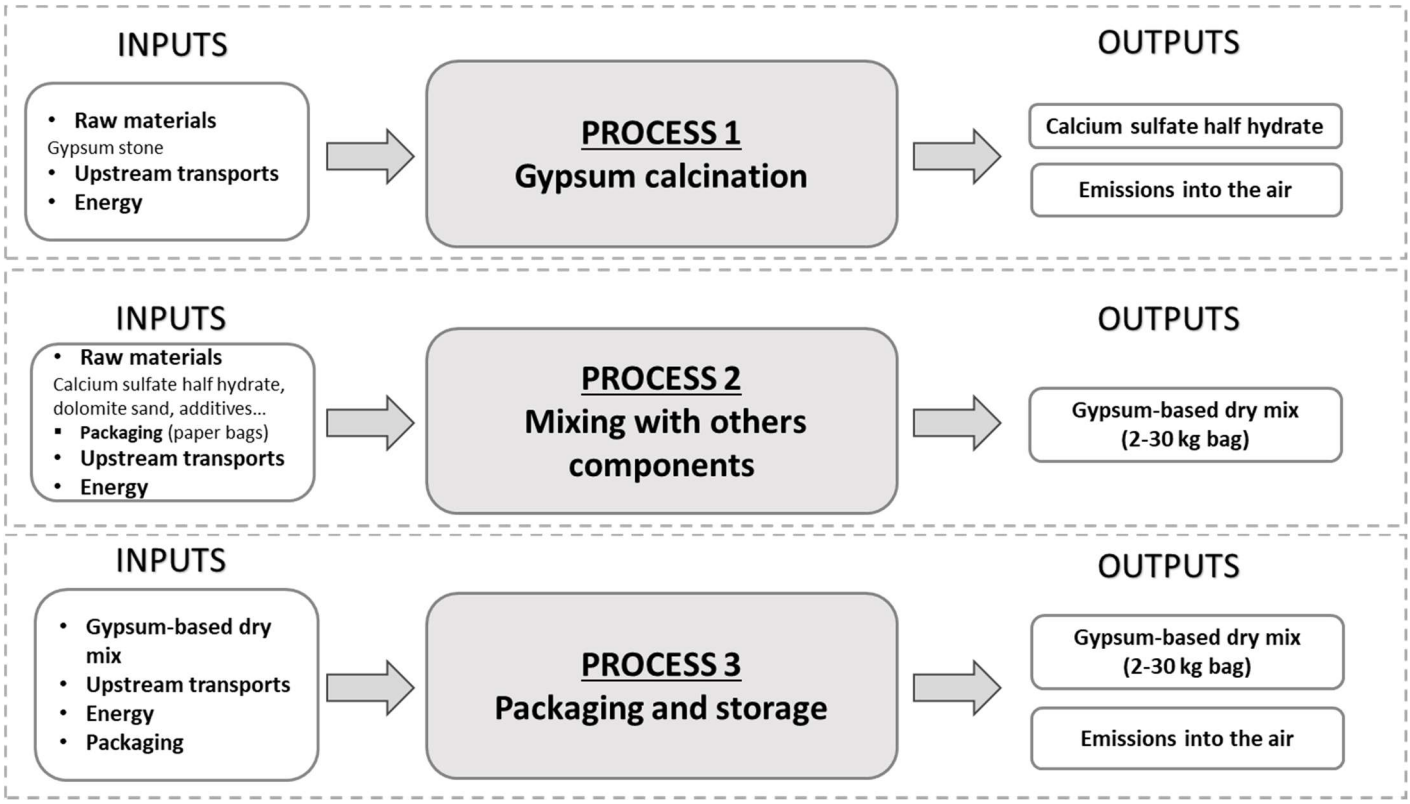
- KNAUF SIA is participant in the CO_2 emissions trading scheme
- The company is entitled to use the FSC trademark for the production and trade of packaging carton, technical carton and test line

CRADLE-TO-GATE SYSTEM BOUNDARIES DIAGRAM

Life Cycle Stages																
Building life-cycle information																Benefits and loads beyond the system boundary
Manufacturing stage			Construction process stage		Use stage							End of life stage				Other environmental information
Raw material supply	Transport	Manufacturing	Transport	Construction - installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction - demolition	Transport	Waste processing	Disposal	Reuse - Recovery - Recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
✓			MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

- **A1 - Raw material supply**: extraction and processing of raw materials.
  Generation of electricity, steam and heat from primary energy resources, also including their extraction, refining and transport. This also includes energy needed for raw material supply and energy for manufacturing in core process.
- **A2 - Transportation:** external transportation to the manufacturing plant and internal transport
- **A3 - Manufacturing:**
  - The recycling process of any purchased recycled material and the transport from the recycling process to where the material is used.
  - Manufacturing of the construction product.
  - Packing materials etc. used.
  - Production of ancillary materials or pre-products;
  - Treatment of waste generated from the manufacturing processes. Processing up to the end-of-waste

FLOW DIAGRAM OF PROUCT MANUFACTURING



CONTENT DECLARATION

KNAUF products	Constituent materials						
	Calcium sulfate half hydrate	Dolomite sand	Lime hydrate	Lime stone dust	Perlite	Additive	Packaging
MP-75	66%	26%	2%	-	1%	1-2%	3%
MP-75L	76%	14%	2%	-	3%	1-2%	3%
Rotband	82%	12%	1%	-	2%	<0.5%	3%
Rotband Plus	77%	16%	2%	-	2%	<0.5%	3%
Goldanb	83%	11%	1.3%	-	2%	<0.5%	3%
Fugenfüller	78%	-		19%	-	<1%	3%
Q-Filler	78%	-		19%	-	<1%	3%
Perlfix	97%	-	-	-	-	<1%	3%
Baugips	97%	<1%	-	-	-	<0.5%	3%
Elektrikergips	98%	-	-	-	-	-	3%

During the life cycle of the product any hazardous substance listed in the “Candidate List of Substances of Very High Concern (SVHC) for authorization” has been used in a percentage higher than 0.1% of the weight of the product.

Packaging

Distribution packaging: finished products are packed in paper bag (package from 2 to 30 kg) and placed on a wooden pallet. Then polyethylene film is used for the storage. For each products, packaging content is the following:

- Paper bag: 5,70E-3 kg
- Wooden pallet: 2,00E-2 kg
- PE film: 1.02E-5 kg

Recycled material

Provenience of recycled materials (pre-consumer or post-consumer) in the product: No recycled materials is used (in these products manufacture technology it is not possible to use recycled gypsum).

ENVIRONMENTAL PERFORMANCE

GYPSUM PLASTER

Impacts of 1 kg of MP 75 (dry gypsum based mix)

POTENTIAL ENVIRONMENTAL IMPACT

Indicator	Global Warming Power (GWP)	Depletion potential of the stratospheric ozone layer (ODP)	Acidification potential (AP)	Eutrophication potential (EP)	Formation potential of tropospheric ozone (POCP)	Abiotic depletion potential – Elements	Abiotic depletion potential – Fossil resources
	kg CO_2-eq	kg CFC11-eq	kg SO_2-eq	kg PO_4^{3-} -eq	kg C_2H_4-eq	kg Sb-eq	MJ
A1-A3	1.19e-1	5.15e-9	3.17e-4	7.42e-5	2.37e-5	5.02e-8	1.64e+0
A4-D	MND	MND	MND	MND	MND	MND	MND

USE OF RESSOURCES (PRIMARY ENERGETIC AND WATER RESSOURCES)

Indicator	Primary energy resources – Renewable			Primary energy resources – Non-renewable			Secondary material	Renewable secondary fuels	Non-renewable secondary fuels	Net use of fresh water
	Use as energy carrier	Used as raw materials	TOTAL	Use as energy carrier	Used as raw materials	TOTAL				
	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	kg	MJ, net calorific value	MJ, net calorific value	m^3
A1-A3	2.61e-1	4.83e-1	7.43e-1	8.31e-1	8.84e-1	1.71e+0	0.00e+0	0.00e+0	0.00e+0	8.92e-4
A4-D	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

WASTE PRODUCTION AND OUTPUT FLOWS

Waste production

Indicator	Hazardous waste disposed	Non-hazardous waste disposed	Radioactive waste disposed
	kg	kg	kg
A1-A3	1.07e-4	1.94e-3	5.58e-7
A4-D	MND	MND	MND

Output flows

Indicator	Components for reuse	Material for recycling	Materials for energy recovery	Exported energy
	kg	kg	kg	MJ
A1-A3	0,00E+00	0,00E+00	0,00E+00	0,00E+00
A4-D	MND	MND	MND	MND

Impacts of 1 kg of MP 75L (dry gypsum based mix)

POTENTIAL ENVIRONMENTAL IMPACT

Indicator	Global Warming Power (GWP)	Depletion potential of the stratospheric ozone layer (ODP)	Acidification potential (AP)	Eutrophication potential (EP)	Formation potential of tropospheric ozone (POCP)	Abiotic depletion potential – Elements	Abiotic depletion potential – Fossil resources
	kg CO_2-eq	kg CFC11-eq	kg SO_2-eq	kg PO_4^{3-} -eq	kg C_2H_4-eq	kg Sb-eq	MJ
A1-A3	1.34e-1	5.11e-9	3.27e-4	7.34e-5	2.54e-5	4.84e-8	1.88e+0
A4-D	MND	MND	MND	MND	MND	MND	MND

USE OF RESSOURCES (PRIMARY ENERGETIC AND WATER RESSOURCES)

Indicator	Primary energy resources – Renewable			Primary energy resources – Non-renewable			Secondary material	Renewable secondary fuels	Non-renewable secondary fuels	Net use of fresh water
	Use as energy carrier	Used as raw materials	TOTAL	Use as energy carrier	Used as raw materials	TOTAL				
	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	kg	MJ, net calorific value	MJ, net calorific value	m^3
A1-A3	2.63e-1	4.83e-1	7.45e-1	5.53e-1	1.39e+0	1.95e+0	0.00e+0	0.00e+0	0.00e+0	8.89e-4
A4-D	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

Waste production

Indicator	Hazardous waste disposed	Non-hazardous waste disposed	Radioactive waste disposed
	kg	kg	kg
A1-A3	1.07e-4	2.41e-3	6.12e-7
A4-D	MND	MND	MND

Output flows

Indicator	Components for reuse	Material for recycling	Materials for energy recovery	Exported energy
	kg	kg	kg	MJ
A1-A3	0,00E+00	0,00E+00	0,00E+00	0,00E+00
A4-D	MND	MND	MND	MND

Impacts of 1 kg of Rotband (dry gypsum based mix)

POTENTIAL ENVIRONMENTAL IMPACT

Indicator	Global Warming Power (GWP)	Depletion potential of the stratospheric ozone layer (ODP)	Acidification potential (AP)	Eutrophication potential (EP)	Formation potential of tropospheric ozone (POCP)	Abiotic depletion potential – Elements	Abiotic depletion potential – Fossil resources
	kg CO_2-eq	kg CFC11-eq	kg SO_2-eq	kg PO_4^{3-} -eq	kg C_2H_4-eq	kg Sb-eq	MJ
A1-A3	1.24e-1	4.80e-9	2.81e-4	6.20e-5	2.11e-5	3.99e-8	1.81e+0
A4-D	MND	MND	MND	MND	MND	MND	MND

USE OF RESSOURCES (PRIMARY ENERGETIC AND WATER RESSOURCES)

Indicator	Primary energy resources – Renewable			Primary energy resources – Non-renewable			Secondary material	Renewable secondary fuels	Non-renewable secondary fuels	Net use of fresh water
	Use as energy carrier	Used as raw materials	TOTAL	Use as energy carrier	Used as raw materials	TOTAL				
	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	kg	MJ, net calorific value	MJ, net calorific value	m^3
A1-A3	2.50e-1	4.83e-1	7.33e-1	5.28e-1	1.33e+0	1.86e+0	0.00e+0	0.00e+0	0.00e+0	7.67e-4
A4-D	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

Waste production

Indicator	Hazardous waste disposed	Non-hazardous waste disposed	Radioactive waste disposed
	kg	kg	kg
A1-A3	1.07e-4	2.36e-3	5.23e-7
A4-D	MND	MND	MND

Output flows

Indicator	Components for reuse	Material for recycling	Materials for energy recovery	Exported energy
	kg	kg	kg	MJ
A1-A3	0,00E+00	0,00E+00	0,00E+00	0,00E+00
A4-D	MND	MND	MND	MND

Impacts of 1 kg of Rotband Plus (dry gypsum based mix)

POTENTIAL ENVIRONMENTAL IMPACT

Indicator	Global Warming Power (GWP)	Depletion potential of the stratospheric ozone layer (ODP)	Acidification potential (AP)	Eutrophication potential (EP)	Formation potential of tropospheric ozone (POCP)	Abiotic depletion potential – Elements	Abiotic depletion potential – Fossil resources
	kg CO_2-eq	kg CFC11-eq	kg SO_2-eq	kg PO_4^{3-} -eq	kg C_2H_4-eq	kg Sb-eq	MJ
A1-A3	1.27e-1	4.96e-9	2.94e-4	6.50e-5	2.23e-5	4.19e-8	1.80e+0
A4-D	MND	MND	MND	MND	MND	MND	MND

USE OF RESSOURCES (PRIMARY ENERGETIC AND WATER RESSOURCES)

Indicator	Primary energy resources – Renewable			Primary energy resources – Non-renewable			Secondary material	Renewable secondary fuels	Non-renewable secondary fuels	Net use of fresh water
	Use as energy carrier	Used as raw materials	TOTAL	Use as energy carrier	Used as raw materials	TOTAL				
	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	kg	MJ, net calorific value	MJ, net calorific value	m^3
A1-A3	2,52E-01	4,83E-01	7,34E-01	5,71E-01	1,28E+00	1,86E+00	0,00E+00	0,00E+00	0,00E+00	7,83E-04
A4-D	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

Waste production

Indicator	Hazardous waste disposed	Non-hazardous waste disposed	Radioactive waste disposed
	kg	kg	kg
A1-A3	1,07E-04	2,29E-03	5,44E-07
A4-D	MND	MND	MND

Output flows

Indicator	Components for reuse	Material for recycling	Materials for energy recovery	Exported energy
	kg	kg	kg	MJ
A1-A3	0,00E+00	0,00E+00	0,00E+00	0,00E+00
A4-D	MND	MND	MND	MND

Impacts of 1 kg of Goldband (dry gypsum based mix)

POTENTIAL ENVIRONMENTAL IMPACT

Indicator	Global Warming Power (GWP)	Depletion potential of the stratospheric ozone layer (ODP)	Acidification potential (AP)	Eutrophication potential (EP)	Formation potential of tropospheric ozone (POCP)	Abiotic depletion potential – Elements	Abiotic depletion potential – Fossil resources
	kg CO_2-eq	kg CFC11-eq	kg SO_2-eq	kg PO_4^{3-} -eq	kg C_2H_4-eq	kg Sb-eq	MJ
A1-A3	1,24E-01	4,81E-09	2,81E-04	6,17E-05	2,11E-05	3,97E-08	1,81E+00
A4-D	MND	MND	MND	MND	MND	MND	MND

USE OF RESSOURCES (PRIMARY ENERGETIC AND WATER RESSOURCES)

Indicator	Primary energy resources – Renewable			Primary energy resources – Non-renewable			Secondary material	Renewable secondary fuels	Non-renewable secondary fuels	Net use of fresh water
	Use as energy carrier	Used as raw materials	TOTAL	Use as energy carrier	Used as raw materials	TOTAL				
	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	kg	MJ, net calorific value	MJ, net calorific value	m^3
A1-A3	2.50e-1	4.83e-1	7.33e-1	5.28e-1	1.33e+0	1.86e+0	0.00e+0	0.00e+0	0.00e+0	7.67e-4
A4-D	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

Waste production

Indicator	Hazardous waste disposed	Non-hazardous waste disposed	Radioactive waste disposed
	kg	kg	kg
A1-A3	1.07e-4	2.36e-3	5.23e-7
A4-D	MND	MND	MND

Output flows

Indicator	Components for reuse	Material for recycling	Materials for energy recovery	Exported energy
	kg	kg	kg	MJ
A1-A3	0,00E+00	0,00E+00	0,00E+00	0,00E+00
A4-D	MND	MND	MND	MND

GYPSUM PUTTY AND MOUTING GLUE

Impacts of 1 kg of Fugenfüller (dry gypsum based mix)

Impacts of 1 kg of Q-Filler (dry gypsum based mix)

POTENTIAL ENVIRONMENTAL IMPACT

Indicator	Global Warming Power (GWP)	Depletion potential of the stratospheric ozone layer (ODP)	Acidification potential (AP)	Eutrophication potential (EP)	Formation potential of tropospheric ozone (POCP)	Abiotic depletion potential – Elements	Abiotic depletion potential – Fossil resources
	kg CO_2-eq	kg CFC11-eq	kg SO_2-eq	kg PO_4^{3-}-eq	kg C_2H_4-eq	kg Sb-eq	MJ
A1-A3	1,06E-01	4,18E-09	2,72E-04	6,08E-05	1,97E-05	3,62E-08	1,61E+00
A4-D	MND	MND	MND	MND	MND	MND	MND

USE OF RESSOURCES (PRIMARY ENERGETIC AND WATER RESSOURCES)

Indicator	Primary energy resources – Renewable			Primary energy resources – Non-renewable			Secondary material	Renewable secondary fuels	Non-renewable secondary fuels	Net use of fresh water
	Use as energy carrier	Used as raw materials	TOTAL	Use as energy carrier	Used as raw materials	TOTAL				
	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	kg	MJ, net calorific value	MJ, net calorific value	m^3
A1-A3	2.50e-1	4.83e-1	7.33e-1	5.28e-1	1.33e+0	1.86e+0	0.00e+0	0.00e+0	0.00e+0	7.67e-4
A4-D	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

Waste production

Indicator	Hazardous waste disposed	Non-hazardous waste disposed	Radioactive waste disposed
	kg	kg	kg
A1-A3	1.07e-4	2.36e-3	5.23e-7
A4-D	MND	MND	MND

Output flows

Indicator	Components for reuse	Material for recycling	Materials for energy recovery	Exported energy
	kg	kg	kg	MJ
A1-A3	0,00E+00	0,00E+00	0,00E+00	0,00E+00
A4-D	MND	MND	MND	MND

Impacts of 1 kg of Perlfix (dry gypsum based mix)

POTENTIAL ENVIRONMENTAL IMPACT

Indicator	Global Warming Power (GWP)	Depletion potential of the stratospheric ozone layer (ODP)	Acidification potential (AP)	Eutrophication potential (EP)	Formation potential of tropospheric ozone (POCP)	Abiotic depletion potential – Elements	Abiotic depletion potential – Fossil resources
	kg CO_2-eq	kg CFC11-eq	kg SO_2-eq	kg PO_4^{3-} -eq	kg C_2H_4-eq	kg Sb-eq	MJ
A1-A3	1,13E-01	4,59E-09	2,42E-04	5,19E-05	1,80E-05	3,63E-08	1,75E+00
A4-D	MND	MND	MND	MND	MND	MND	MND

USE OF RESSOURCES (PRIMARY ENERGETIC AND WATER RESSOURCES)

Indicator	Primary energy resources – Renewable			Primary energy resources – Non-renewable			Secondary material	Renewable secondary fuels	Non-renewable secondary fuels	Net use of fresh water
	Use as energy carrier	Used as raw materials	TOTAL	Use as energy carrier	Used as raw materials	TOTAL				
	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	kg	MJ, net calorific value	MJ, net calorific value	m^3
A1-A3	2.50e-1	4.83e-1	7.33e-1	5.28e-1	1.33e+0	1.86e+0	0.00e+0	0.00e+0	0.00e+0	7.67e-4
A4-D	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

Waste production

Indicator	Hazardous waste disposed	Non-hazardous waste disposed	Radioactive waste disposed
	kg	kg	kg
A1-A3	1.07e-4	2.36e-3	5.23e-7
A4-D	MND	MND	MND

Output flows

Indicator	Components for reuse	Material for recycling	Materials for energy recovery	Exported energy
	kg	kg	kg	MJ
A1-A3	0,00E+00	0,00E+00	0,00E+00	0,00E+00
A4-D	MND	MND	MND	MND

MOUTING PLASTER

Impacts of 1 kg of Baugips (dry gypsum based mix)

POTENTIAL ENVIRONMENTAL IMPACT

Indicator	Global Warming Power (GWP)	Depletion potential of the stratospheric ozone layer (ODP)	Acidification potential (AP)	Eutrophication potential (EP)	Formation potential of tropospheric ozone (POCP)	Abiotic depletion potential – Elements	Abiotic depletion potential – Fossil resources
	kg CO_2-eq	kg CFC11-eq	kg SO_2-eq	kg PO_4^{3-}-eq	kg C_2H_4-eq	kg Sb-eq	MJ
A1-A3	1,12E-01	4,58E-09	2,39E-04	5,12E-05	1,77E-05	3,57E-08	1,74E+00
A4-D	MND	MND	MND	MND	MND	MND	MND

USE OF RESSOURCES (PRIMARY ENERGETIC AND WATER RESSOURCES)

Indicator	Primary energy resources – Renewable			Primary energy resources – Non-renewable			Secondary material	Renewable secondary fuels	Non-renewable secondary fuels	Net use of fresh water
	Use as energy carrier	Used as raw materials	TOTAL	Use as energy carrier	Used as raw materials	TOTAL				
	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	kg	MJ, net calorific value	MJ, net calorific value	m^3
A1-A3	2.50e-1	4.83e-1	7.33e-1	5.28e-1	1.33e+0	1.86e+0	0.00e+0	0.00e+0	0.00e+0	7.67e-4
A4-D	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

Waste production

Indicator	Hazardous waste disposed	Non-hazardous waste disposed	Radioactive waste disposed
	kg	kg	kg
A1-A3	1.07e-4	2.36e-3	5.23e-7
A4-D	MND	MND	MND

Output flows

Indicator	Components for reuse	Material for recycling	Materials for energy recovery	Exported energy
	kg	kg	kg	MJ
A1-A3	0,00E+00	0,00E+00	0,00E+00	0,00E+00
A4-D	MND	MND	MND	MND

Impacts of 1 kg of Elektrikergips (dry gypsum based mix)

POTENTIAL ENVIRONMENTAL IMPACT

Indicator	Global Warming Power (GWP)	Depletion potential of the stratospheric ozone layer (ODP)	Acidification potential (AP)	Eutrophication potential (EP)	Formation potential of tropospheric ozone (POCP)	Abiotic depletion potential – Elements	Abiotic depletion potential – Fossil resources
	kg CO_2-eq	kg CFC11-eq	kg SO_2-eq	kg PO_4^{3-} -eq	kg C_2H_4-eq	kg Sb-eq	MJ
A1-A3	1,12E-01	4,52E-09	2,32E-04	4,95E-05	1,72E-05	3,42E-08	1,73E+00
A4-D	MND	MND	MND	MND	MND	MND	MND

USE OF RESSOURCES (PRIMARY ENERGETIC AND WATER RESSOURCES)

Indicator	Primary energy resources – Renewable			Primary energy resources – Non-renewable			Secondary material	Renewable secondary fuels	Non-renewable secondary fuels	Net use of fresh water
	Use as energy carrier	Used as raw materials	TOTAL	Use as energy carrier	Used as raw materials	TOTAL				
	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	MJ, net calorific value	kg	MJ, net calorific value	MJ, net calorific value	m^3
A1-A3	2.50e-1	4.83e-1	7.33e-1	5.28e-1	1.33e+0	1.86e+0	0.00e+0	0.00e+0	0.00e+0	7.67e-4
A4-D	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

Waste production

Indicator	Hazardous waste disposed	Non-hazardous waste disposed	Radioactive waste disposed
	kg	kg	kg
A1-A3	1.07e-4	2.36e-3	5.23e-7
A4-D	MND	MND	MND

Output flows

Indicator	Components for reuse	Material for recycling	Materials for energy recovery	Exported energy
	kg	kg	kg	MJ
A1-A3	0,00E+00	0,00E+00	0,00E+00	0,00E+00
A4-D	MND	MND	MND	MND

REFERENCES

EIME software, Version 5.8. – database : CODDE-2018-11 (updated November 2018)

EIME v5 guides1 2: for the modelling of the different processes

NF EN 15804+A1:2014: Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction

ISO 14040: Environmental management -- Life cycle assessment -- Principles and framework (2006)

ISO 14044: Environmental management -- Life cycle assessment -- Requirements and guidelines (2006)

ISO 14025:2006: Environmental labels and declarations -- Type III environmental declarations -- Principles and procedures (2006)

LCA report

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