



Environmental Product Declaration

Under the general rules of the Environmental Footprint Institute Product Group Classification: UN CPC 37410 In accordance with ISO 14025 and EN 15804 for:

Pre Mix Plasters CONMIX LTD.

Program:

Product group classification EPD registration number

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Geographical scope:







INTRODUCTION

This report contains the environmental performance of the manufacturing process of the premix plaster products manufactured by CONMIX Ltd. This Environmental Product Declaration (EPD) has been developed using the Life Cycle Assessment (LCA) methodology. The environmental impact values calculated are express referred to one kilogram of dry Pre Mix Plaster.

The assessed life cycle includes all phases in the manufacturing process of Pre Mix Plaster in a **"cradle to gate"** scope. This LCA covers from the extraction and production of all raw materials (cement, sands, additives, etc.), mixing, drying and all others manufacturing processes up to the distribution of final product to the customer.

This EPD covers the following products by CONMIX: Cement plaster /Render - CP2; Cement Plaster/Render - CP2 Fine; Plaster/Render - CP2 Fine Colour; Concrete Rush Coat - CRC; Concrete Rush Coat - CRC MS; Mono Coat Cement Plaster/Render - CP4 (MC); Cement Plaster - CP14; Decorative Plaster Concoat - SP3; Decorative Plaster Contour - SP Tyrolean; Decorative Plaster - Glitterlite (GL,GLS & SS); Scratch Coat Plain – SCP; Decorative Cement Plaster - DCP2; Gypsum Lime Veneer Plaster – GLVP; Conmix Insubond; Floor Screed - SC 200/10; Block Laying Mortar - CM4 (Type M,S & N); Water Resistant Tile Adhesive - C500; Water Resistant Tile Adhesive - C800; Lightweight Block Mortar – LWBM and Skim Coat Plaster - LC11.

This EPD has been conducted according to the Environmental Footprint Institute regulations and it has been certified and registered in The Environmental Footprint Institute. The EPD regulation is a system for the international use of Type III Environmental Declarations, according to ISO 14025:2010. Not only the system, but also its applications, are described in the Programmer's General Indications (PGI). This report has been made following the specifications given in the European standard EN 15804:2012+A2:2019.

The direct and indirect emissions and the corresponding environmental impacts calculated in the life cycle assessments and reported in this EPD include, amongst other, the calculation of the carbon footprint, the water footprint and other environmental impacts to air, land and water, according to the selected Product Category Rules.

This EPD represents a complete and objective vision of the environmental performance of the manufacturing process of Pre Mix Plasters by CONMIX LTD.









GENERAL INFORMATION

CONMIX LTD.



CONMIX LTD

9th Floor, The City Gate Tower Opposite Ansar Mall, P.O. 5936 Sharjah, United Arab Emirates www.Conmix.com

CONMIX LTD., a Bukhatir Group company, is a well-established company in the field of manufacture and supply of Ready Mix Plaster & Paints, Construction Chemicals and Water Treatment Solutions in the United Arab Emirates since 1975.

With its headquarters in Sharjah, the company is operating in the United Arab Emirates and abroad with locations in Sharjah, Abu Dhabi, Dubai, Ajman and Ras Al Khaimah.

CONMIX LTD, is a pioneer in the field of Pre Mix Plaster in the UAE. With its dry mortar plants located in at Jabel Ali and Ras Al Khaimah, the company is one of the leading manufacturers in the Middle East. Product range includes Cement Plasters/Renderers, Gypsum Lime Plasters, Decorative Plasters, Acoustic & Insulation Plasters, Tile Adhesives & Grouts, Dry concrete, Mortars and Acrylic Plasters/Coatings. CONMIX LTD. also offers tailor made special products to meet specific project requirements.

Quality products and reliable services make CONMIX LTD. a one stop solution for construction needs.

CONMIX sustainable practices

CONMIX has been registered and conforms to the requirements of ISO 9001:2015, ISO 14001:2015, and ISO 45001:2018 maintaining quality assurance in design development, production, installation and service. All products meet the relevant international standards.

The CONMIX's QHSE Policy includes to make every effort to protect the environment and prevent pollution, minimise consumption of materials, promote reuse and recycling of wastes, and adapt the best practice on waste management.





Analysed product

The assessed system in this Environmental Product Declaration (EPD) comprises the full life cycle of **Pre Mix Plasters** manufactured by CONMIX in its plants in Ras Al Khaimah and Dubai Industrial City.

The assessment has been done using the production data from January to August 2020 in these two plants.

Types of Pre Mix Plasters analysed

SI. No	Product Name
1	Cement plaster /Render - CP2
2	Cement plaster/Render - CP2 Fine
3	Concrete Rush Coat - CRC
4	Concrete Rush Coat - CRC MS
5	Mono Coat Cement plaster/Render - CP4 (MC)
6	Cement plaster - CP14
7	Decorative Plaster Concoat - SP3
8	Decorative Plaster Contour - SP Tyrolean
9	Decorative Plaster - Glitterlite (GL, GLS & SS)
10	Scratch Coat Plain - SCP
11	Cement plaster/Render - CP2 Fine Color
12	Decorative Cement plaster - DCP2
13	Gypsum Lime Veneer Plaster - GLVP
14	Conmix Insubond
15	Floor Screed - SC 200/10
16	Block Laying Mortar - CM4 (Type M, S & N)
17	Water Resistant Tile Adhesive - C500
18	Water Resistant Tile Adhesive - C800
19	Lightweight Block Mortar - LWBM
20	Skim Coat Plaster - LC11





Declared Unit

The Declared Unit of the Life Cycle Assessments is one kilogram (1 kg) of Pre Mix Plaster product at the gate of the customer.

All direct and indirect environmental impacts, as well as the use of resources, are reported referred to this unit.

This EPD presents separately the environmental impacts associated to the LCA of the twenty Pre Mix Plasters analysed in this EPD.

System boundaries

This EPD covers all product stages from "cradle to gate", this means that process in the life cycle from raw materials manufacturing to transport to final customers are included. Use and final disposal is not included in this LCA.

CONMIX buys to external suppliers the cement, sand, and other raw material, from this point CONMIX controls all the manufacturing process: drying, mixing, packing, etc. CONMIX uses deferent types of Portland cements.

The procedures that are not controlled by the company, but are included in this environmental study, are:

- The manufacturing process of cements, chemicals, and other raw materials (these procedures can be considered "upstream" in this LCA).
- The extraction and production of fuels.
- The production of electricity.
- The production of the machinery, buildings, and vehicles.

All related direct and indirect environmental impacts related to these elements have been calculated and were included in the LCAs in this EPD. Following the LCA methodology, the indirect environmental impacts related to the machinery and buildings construction have been amortized over the life period of the hardware.







The scope of this EPD is "cradle to gate with options".

Possible scopes of the LCA defined in the European standard EN 15804:2012+A2:2019 are:

Product stage		lage	Construction process stage		Use stage					End	of life s	stage		Resource Recovery Stage		
LA Raw materials	Ltansport	EP Manufacturing	F Transport	S Construction installation	esu B1	8 Maintenance	ଞ Repair	Replacement	Refurbishment	ଞ୍ଚ Operational energy use	20 Operational water use	De-construction demolition	C Transport	Ω Waste processing	Disposal	Reuse D Recovery Recycling potential
X	Х	X	Х	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

X = Included, ND=Module not declared, NR= Module not relevant

Modules from A5 to D are not included (X refers to considered stage, NR refers to not relevant stage and ND to not declared stage).

<u>Upstream Processes</u> (A1: Raw Material Supply): Production for each product starts with mainly locally sourced but some transported from other parts of the world. 'Raw material supply' includes raw material extraction and pre-treatment processes before production including cements production and sand extraction.

<u>Core Processes</u> (A2: Transportation, A3: Manufacturing and A4: Distribution): Transport is relevant for delivery of raw materials to the plant (cement, sand, lime, chemicals, etc.) and the transport of materials within the plant. Pre Mix Plaster production starts with drying, mixing and packaging. Electricity and natural gas are consumed at Pre Mix Plaster production process.

Part of the production is distributed to customers sites; other products are picked up by customer at CONMIX installations.

Product Stages

A simplified model of the manufacturing and distribution process is described in the following diagrams, enumerating the main activities included in the system boundaries. The process and facilities are also linked to the phases of the product life cycle (A1-A4).

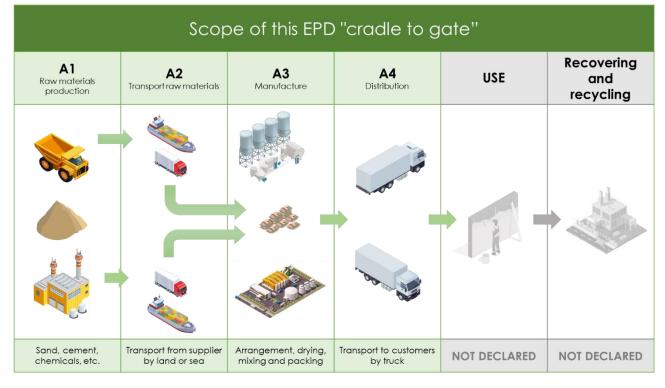
The first phase in the LCA is the production of cements CONMIX buys the cement, sand, and lime to different suppliers in the Arab Emirates (A1-A2). After the drying and mixing the Pre Mix Plaster are packaged (A3).

The Pre Mix Plasters are distributed to customers around the word (A4). In this EPD environmental impacts are reported by Pre mix plaster type of product.

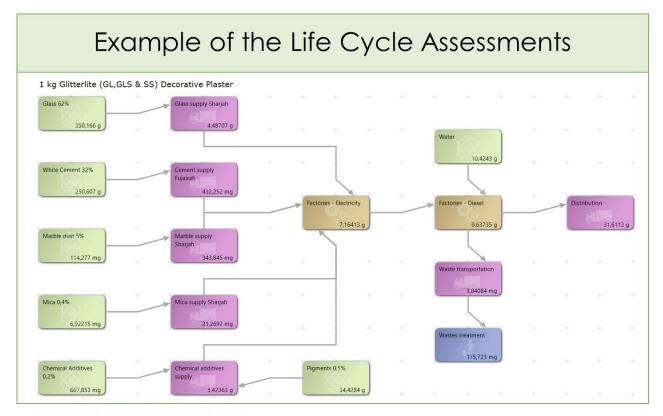








The following diagram designed using Air.e LCA software shows and example of the materials, fuels consumption, energy consumption, transports and other elements and procedures included in the assessments.



The following diagram is a more detailed description of the A3 phase.





Manufacturing process PLANT OPERATOR INSPECT THE PLANT AS PER THE DAILY CHECK LIST CHECK LEVEL OF RAW MATERIALS IN SILOS PRODUCTION ENSURE THAT ONLY QUALITY ASSURED START THE MIXER MATERIALS ARE USED FOR PRODUCTION FEED MATERIAL AS PER THE MIX DESIGN INSTRUCT SHOVEL OPERATOR TO FEED MATERIAL ONTO THE SILO AS AND WHEN REQUIRED SHOVEL OPERATOR LOAD MATERIAL AS REQUIRED START RMC PMP & DRY CC DO MIXING AS PER DO MIXING AS PER W1004 THE WI005 LAB INSPECT AS PER THE INSPECTION AND TEST CHECK CONCRETE AS PER THE DELIVERY NOTE PLAN NO NO PLANT OPERATOR MEETING THE MEETING THE REWORK AS PER THE LAB INSTRUCTIONS REQUIREMENT? REQUIREMENT? YES YES YES MEETING THE REQUIREMENT? DISCHARGE TO THE PACKING MACHINE YES NO HANDLING, STORAGE, PACKAGING, HANDLING, STORAGE, PACKAGING, DELIVERY CONTROL OF NONCONFORMITIES QLT 005 DELIVERY PRD 004 PRD 004



Environmental Product Declaration of Pre Mix Plasters In accordance with ISO 14025 and EN 15804

8





Content declaration

Every product analysed in this EPD has a different composition, but the main materials used in the manufacture of Pre Mix Plasters by CONMIX are:

Material	Percentage
Limestone sand and dune sand	80%
Cements	16%
Hydrated lime	1,4%
Marble – Glass - Mica	< 1%
Other chemicals	< 1%

Substances listen in the "Candidate List of SVHC"

The Pre Mix Plasters do not contain substances which exceed the limits for registration with the European Chemicals Agency regarding the "Candidate List of Substances of Very High Concern for authorisation".







TECHNICAL INFORMATION

Calculation methodology

This EPD represents a Type III Environmental Declarations according to ISO 14025 2010. The Life Cycle Assessment (LCA) has been developed following the ISO 14040 International Standard. The environmental impacts calculation method reported in this EPD follow the ILCD methodology rev 2.0 developed by the European Commission in April 2018. The report has been done following the specifications given in the European standard EN 15804:2012+A2:2019, as Product Category Rules.

Emissions Factors

Emission factors and environmental impacts of elements in life cycles that are not directly controlled by CONMIX (cements, chemicals, electricity, fuels production, etc.) have been analysed using external studies and external emissions factors databases like Ecoinvent due to the lack of direct data. The next paragraphs describe the calculation rules and criterial applied in the calculation of the environmental performance of this type of elements in the LCA.

Cement, sand, and chemicals

Datasets from Environdec 3.6 with emission factors for generic cement type (OPC, White, SRC...) have been characterized by Solid Forest to adjust them to the characteristics of manufacturing of CONMIX suppliers or counties were suppliers are located.

Datasets from Environdec 3.6 with emission factors for generic chemicals have been characterized by Solid Forest to adjust them to the characteristics of the products manufactured by CONMIX's suppliers.

Electricity

A specific dataset with the Life Cycle Inventory (LCI) corresponding to the electricity mix in UAE in 2019 has been developed by Solid Forest for this LCA.

Fuels production and consumption

Specific datasets with the emissions factors corresponding to the diesel combustion in CONMIX plants furnaces and machinery have been developed for these LCAs. Indirect emissions due to diesel production and transportation are also included in the environmental impact values calculation reported in this EPD. In the calculation was estimated a diesel calorific value of 43 kg/l and a density of 0,85 kg/l for diesel.





Transports

The transport means in phases A4 and A4 are estimated in the assessment as trucks EURO 6 with a capacity of >32t, international cargo ships and cargo planes. Pre Mix Plasters where provided by CONMIX in 2020 to customers all over the world. To create a scenario of the P5 phase.

Calculation rules

Version 3.9 of software Air.e LCA[™] with Ecoinvent[™] 3.6 database have been used for LCA modelling and impacts calculations.

Annual Statistics 2019 report from UAE Electricity Company have been used to create the model of electricity mix in the country.

Minor components not directly related to the product, with less than 1% impact, such as office supplies, have been excluded from the assessment.

All transports of components have been included in the LCA considering real distances travelled by materials used from January 2020 to August 2020. Transport of raw materials needed to manufacture Pre Mix Plasters are estimated in a global scale according to Ecoinvent[™] criteria. Main means of transport have been included for materials purchases and feed ingredients. As exact crops locations are not known in detail, transport distances have been calculated from a general position in the country of origin to the feed factory. Operation in port has also been excluded.

Road distances calculated using Google Maps. Maritime distances calculated using MarineTraffic Voyage Planner.

Cut-off rules: more than 99% of the materials and energy consumption have been included.

The Polluter Payer Principle and the Modularity Principle had been followed.

By-products assignment

There are no by-products in this LCA so there was no need to apply allocation rules.



11





ENVIRONMENTAL PERFORMANCE

Potential Environmental Impacts

In the following tables, the environmental performance of the declared units "one kilogram of Pre Mix Plaster" are presented for every CONMIX product totalized and for every sub-phase of the life cycles.

During the assessment It was not possible to distinguish the differences in the consumption of electricity and diesel during the manufacturing process of the different types of Pre Mix Plasters. That is why the environmental performance of the manufacturing phase is the same for all the products.

Environmental impacts are calculated using the Environmental Footprint (ILCD) version 3.0 methodology from the European Commission.



12







Global Warming Potential (GWP100) (g of CO₂ equivalent)

	A1-A2 Materials	A3 Manufacturing	A4 Distribution	Total
Cement plaster /Render CP2	245,53	27,40	16,82	289,76
Cement plaster/Render CP2 Fine	190,66	27,40	7,48	225,55
Concrete Rush Coat CRC	266,00	27,40	11,26	304,67
Concrete Rush Coat CRC MS	376,94	27,40	5,33	404,68
Mono Coat Cement plaster/Render - CP4 (MC)	129,52	27,40	10,65	167,57
Cement plaster CP14	136,19	27,40	4,98	168,58
Decorative Plaster Concoat SP3	274,79	27,40	60,67	332,97
Decorative Plaster Contour SP Tyrolean	288,12	27,40	5,89	321,42
Decorative Plaster Glitterlite (GL, GLS & SS)	846,70	27,40	31,61	905,71
Scratch Coat Plain SCP	262,03	27,40	4,65	294,10
Cement plaster/Render CP2 Fine Colour	297,75	27,40	4,11	329,27
Decorative Cement plaster DCP2	166,10	27,40	8,33	201,84
Gypsum Lime Veneer Plaster GLVP	184,27	27,40	1,42	213,10
Conmix Insubond	203,51	27,40	50,33	281,24
Floor Screed SC 200/10	181,10	27,40	9,90	218,40
Block Laying Mortar CM4 (Type M, S & N)	170,51	27,40	14,02	172,75
Water Resistant Tile Adhesive C500	278,78	27,40	13,81	320,00
Water Resistant Tile Adhesive C800	404,66	27,40	20,25	452,32
Lightweight Block Mortar LWBM	185,94	27,40	4,09	217,44
Skim Coat Plaster LC11	205,43	27,40	9,76	242,59







Ozone depletion (mg of CFC11 equivalent)

	A1-A2 Materials	A3 Manufacturing	A4 Distribution	Total
Cement plaster /Render CP2	0,01	0,04	4,37e-3	0,05
Cement plaster/Render CP2 Fine	0,01	0,04	1,94e-3	0,05
Concrete Rush Coat CRC	0,02	0,04	2,92e-3	0,06
Concrete Rush Coat CRC MS	0,04	0,04	1,38e-3	0,07
Mono Coat Cement plaster/Render - CP4 (MC)	6,99e-3	0,04	2,76e-3	0,05
Cement plaster CP14	7,84e-3	0,04	1.29e-3	0,05
Decorative Plaster Concoat SP3	0,01	0,04	0,01	0,06
Decorative Plaster Contour SP Tyrolean	0,01	0,04	1,53e-3	0,05
Decorative Plaster Glitterlite (GL, GLS & SS)	0,07	0,04	8,11e-3	0,11
Scratch Coat Plain SCP	0,02	0,04	1,21e-3	0,05
Cement plaster/Render CP2 Fine Colour	1,93e-2	0,04	1,07e-3	0,05
Decorative Cement plaster DCP2	1,313-2	0,04	0,22e-3	0,05
Gypsum Lime Veneer Plaster GLVP	8,31e-3	0,04	3,673-4	0,04
Conmix Insubond	0,01	0,04	0,01	0,06
Floor Screed SC 200/10	6,54e-3	0,04	2,57e-3	0,04
Block Laying Mortar CM4 (Type M, S & N)	5.72e-3	0,04	3,64e-3	0,04
Water Resistant Tile Adhesive C500	9,38e-3	0,04	3,01e-3	0,05
Water Resistant Tile Adhesive C800	0,01	0,04	4,12e-3	0,05
Lightweight Block Mortar LWBM	6,92e-3	0,04	1,06e-3	0,04
Skim Coat Plaster LC11	8,87e-3	0,04	2,53e-3	0,05







Acidification of land and water (mol H+ equivalent)

	A1-A2 Materials	A3 Manufacturing	A4 Distribution	Total
Cement plaster /Render CP2	7,90e-5	1,20e-4	0,05e-4	9,50e-4
Cement plaster/Render CP2 Fine	6,70e-4	1,20e-4	0,20e-4	8,11e-4
Concrete Rush Coat CRC	1,13e-3	1,20e-4	0,30e-4	12,80e-4
Concrete Rush Coat CRC MS	2,00e-3	1,20e-4	2,00e-5	21,30e-4
Mono Coat Cement plaster/Render - CP4 (MC)	3,60e-4	1,20e-4	3,00e-5	5,10e-4
Cement plaster CP14	4,10e-4	1,20e-4	2,00e-5	5,40e-4
Decorative Plaster Concoat SP3	9,00e-4	1,20e-4	1,49e-3	25,10e-4
Decorative Plaster Contour SP Tyrolean	8,30e-4	1,20e-4	2,00e-5	9,60e-4
Decorative Plaster Glitterlite (GL, GLS & SS)	3,85e-3	1,20e-4	1,30e-4	4,09e-3
Scratch Coat Plain SCP	8,60e-4	1,20e-4	1,00e-5	9,90e-4
Cement plaster/Render CP2 Fine Colour	1,08e-3	1,20e-4	1,00e-4	1,21e-3
Decorative Cement plaster DCP2	5,6e-4	1,20e-4	3,00e-5	7,00e-4
Gypsum Lime Veneer Plaster GLVP	4,40e-4	1,20e-4	4,30e-6	5,60e-4
Conmix Insubond	6,40e-4	1,20e-4	1,50e-4	9,10e-4
Floor Screed SC 200/10	4,70e-4	1,20e-4	3,30e-5	6,20e-4
Block Laying Mortar CM4 (Type M, S & N)	3,50e-4	1,20e-4	4,00e-5	5,10e-4
Water Resistant Tile Adhesive C500	7,30e-4	1,20e-4	2,40e-4	1,09e-3
Water Resistant Tile Adhesive C800	1,11e-3	1,20e-4	4,5e-4	1,68e-3
Lightweight Block Mortar LWBM	4,90e-4	1,20e-4	1,00e-5	6,10e-4
Skim Coat Plaster LC11	5,70e-4	1,20e-4	3,00e-5	7,20e-4







Eutrophication of fresh water (mg of PO43- equivalent)

	A1-A2 Materials	A3 Manufacturing	A4 Distribution	Total
Cement plaster /Render CP2	48,93	3,89	1,07	53,90
Cement plaster/Render CP2 Fine	40,29	3,89	0,48	44,66
Concrete Rush Coat CRC	13,82	3,89	0,72	18,43
Concrete Rush Coat CRC MS	28,75	3,89	0,34	32,98
Mono Coat Cement plaster/Render - CP4 (MC)	18,99	3,89	0,68	23,56
Cement plaster CP14	19,72	3,89	0,32	23,93
Decorative Plaster Concoat SP3	54,78	3,89	8,01	66,66
Decorative Plaster Contour SP Tyrolean	52.83	3,89	0,37	57,10
Decorative Plaster Glitterlite (GL, GLS & SS)	627,27	3,89	2,12	633,69
Scratch Coat Plain SCP	57,18	3,89	0,29	61,37
Cement plaster/Render CP2 Fine Colour	64,67	3,89	0,23	68,82
Decorative Cement plaster DCP2	28,04	3,89	0,53	32,46
Gypsum Lime Veneer Plaster GLVP	26,85	3,89	0,09	30,08
Conmix Insubond	35,14	3,89	3,20	42,23
Floor Screed SC 200/10	28,63	3,89	0,63	33,15
Block Laying Mortar CM4 (Type M, S & N)	20,45	3,89	0,89	25,23
Water Resistant Tile Adhesive C500	52,66	3,89	1,51	58,05
Water Resistant Tile Adhesive C800	77,33	3,89	2,53	83,75
Lightweight Block Mortar LWBM	30,77	3,89	0,26	34,93
Skim Coat Plaster LC11	35,50	3,89	0,62	40,02







Photochemical ozone creation (mg of NMVOC equivalent)

	A1-A2 Materials	A3 Manufacturing	A4 Distribution	Total
Cement plaster /Render CP2	567,88	71,72	48,82	688,41
Cement plaster/Render CP2 Fine	477,21	71,72	21,72	570,65
Concrete Rush Coat CRC	872,30	71,72	32,67	976,69
Concrete Rush Coat CRC MS	1124,27	71,72	15,48	1211,46
Mono Coat Cement plaster/Render - CP4 (MC)	273,30	71,72	30,89	275,90
Cement plaster CP14	301,35	71,72	14,45	387,52
Decorative Plaster Concoat SP3	572,74	71,72	871,60	1516,06
Decorative Plaster Contour SP Tyrolean	582,98	71,72	17,09	671,79
Decorative Plaster Glitterlite (GL, GLS & SS)	2295,17	71,72	109,21	2476,09
Scratch Coat Plain SCP	548,18	71,72	13,48	633,38
Cement plaster/Render CP2 Fine Colour	666,19	71,72	11,96	749.87
Decorative Cement plaster DCP2	406,85	71,72	24,18	502,75
Gypsum Lime Veneer Plaster GLVP	328,95	71,72	4,10	404,77
Conmix Insubond	674,21	71,72	146,03	891,96
Floor Screed SC 200/10	368,33	71,72	28,73	468,77
Block Laying Mortar CM4 (Type M, S & N)	285,03	71,72	40,68	397,43
Water Resistant Tile Adhesive C500	554,56	71,72	146,11	772,39
Water Resistant Tile Adhesive C800	943,35	71,72	267,75	1282,82
Lightweight Block Mortar LWBM	375,56	71,72	11,88	459,15
Skim Coat Plaster LC11	483,52	71,72	28,32	583,56





	Depletion of abiotic resources (elements) (mg of Sb equivalent)						
	A1-A2 Materials	A3 Manufacturing	A4 Distribution	Total			
Cement plaster /Render CP2	1,15	0,02	0,03	1,20			
Cement plaster/Render CP2 Fine	1,08	0,02	0,01	1,11			
Concrete Rush Coat CRC	0,86	0,02	0,02	0,90			
Concrete Rush Coat CRC MS	2,93	0,02	0,01	2,96			
Mono Coat Cement plaster/Render - CP4 (MC)	0,35	0,02	0,02	0,38			
Cement plaster CP14	0,39	0,02	0,01	0,42			
Decorative Plaster Concoat SP3	2,37	0,02	0,02	2,41			
Decorative Plaster Contour SP Tyrolean	1,92	0,02	0,01	1,94			
Decorative Plaster Glitterlite (GL, GLS & SS)	26,67	0,02	0,06	26,75			
Scratch Coat Plain SCP	4,26	0,02	0,01	4,28			
Cement plaster/Render CP2 Fine Colour	4,68	0,02	7,88e-3	4,70			
Decorative Cement plaster DCP2	1,79	0,02	0,02	1,82			
Gypsum Lime Veneer Plaster GLVP	1,33	0,02	0,14	1,86			
Conmix Insubond	0,51	0,02	0,09	0,62			
Floor Screed SC 200/10	0,47	0,02	0,02	0,50			
Block Laying Mortar CM4 (Type M, S & N)	0,24	0,02	0,03	0,28			
Water Resistant Tile Adhesive C500	0,50	0,02	0,01	0,53			
Water Resistant Tile Adhesive C800	0,82	0,02	9,06e-3	0,85			
Lightweight Block Mortar LWBM	0,37	0,02	7,83e-3	0,40			
Skim Coat Plaster LC11	16,18	0,02	0,02	16,22			





Depletion of abiotic resources (fuels and fossil) MJ net calorific value

	A1-A2	A3	A4	Total
	Materials	Manufacturing	Distribution	Total
Cement plaster /Render CP2	2,17	0,39	0,28	2,85
Cement plaster/Render CP2 Fine	2,00	0,39	0,13	2,52
Concrete Rush Coat CRC	1,53	0,39	0,19	2,12
Concrete Rush Coat CRC MS	3,20	0,39	0,09	3,69
Mono Coat Cement plaster/Render - CP4 (MC)	0,76	0,39	0,18	1,33
Cement plaster CP14	0,85	0,39	0,08	1,33
Decorative Plaster Concoat \$P3	1,70	0,39	0,89	2,99
Decorative Plaster Contour SP Tyrolean	1,59	0,39	0,10	2,09
Decorative Plaster Glitterlite (GL, GLS & SS)	8,54	0,39	0,53	9,46
Scratch Coat Plain SCP	2,09	0,39	0,08	2,56
Cement plaster/Render CP2 Fine Colour	2,44	0,39	0,07	2,91
Decorative Cement plaster DCP2	1,33	0,39	0,14	1,86
Gypsum Lime Veneer Plaster GLVP	1,60	0,39	0,02	2,02
Conmix Insubond	1,22	0,39	0,85	2,46
Floor Screed SC 200/10	0,92	0,39	0,17	1,48
Block Laying Mortar CM4 (Type M, S & N)	0,70	0,39	0,24	1,33
Water Resistant Tile Adhesive C500	1,41	0,39	0,21	2,02
Water Resistant Tile Adhesive C800	2,12	0,39	0,30	2,82
Lightweight Block Mortar LWBM	0,94	0,39	0,07	1,40
Skim Coat Plaster LC11	1,15	0,39	0,16	1,71





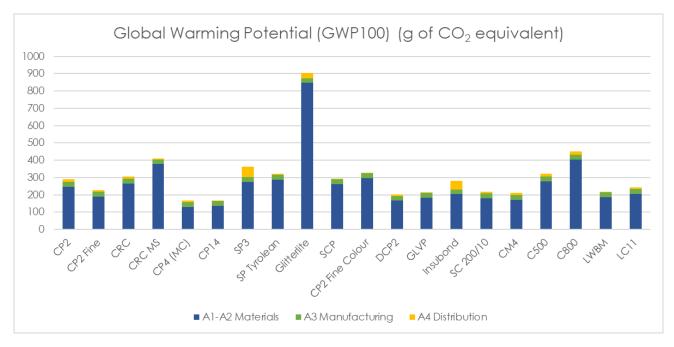


Chart 1: Global Warming Potential (GWP100y) of all products in this EPD

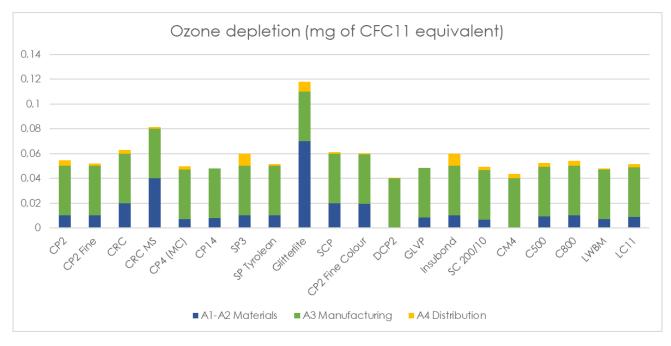


Chart 2: Ozone depletion of all products in this EPD







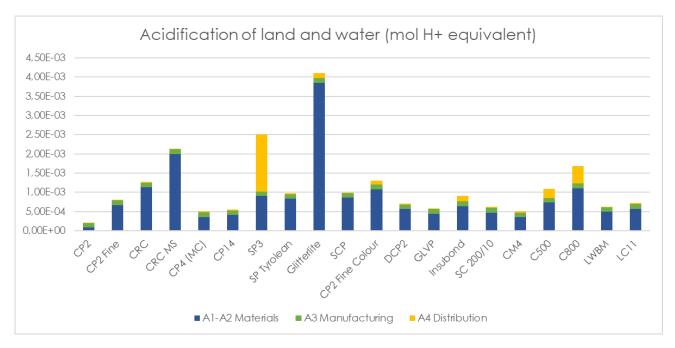


Chart 3: Acidification of all products in this EPD

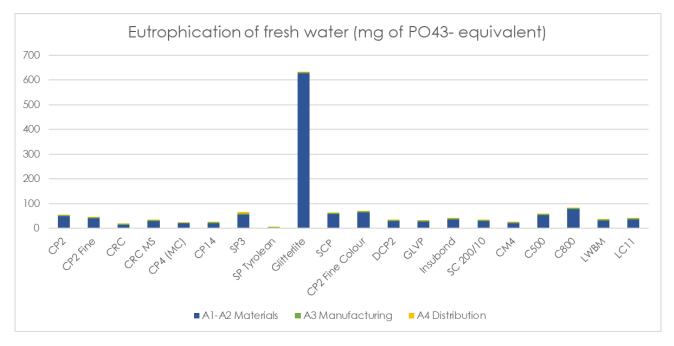


Chart 4: Eutrophication of all products in this EPD



Environmental Product Declaration of Pre Mix Plasters In accordance with ISO 14025 and EN 15804





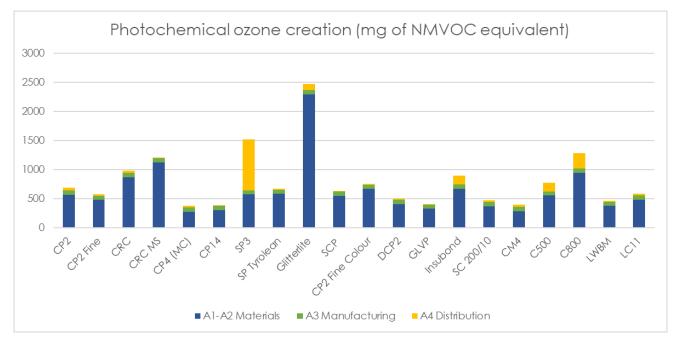


Chart 5: Photochemical ozone creation of all products in this EPD

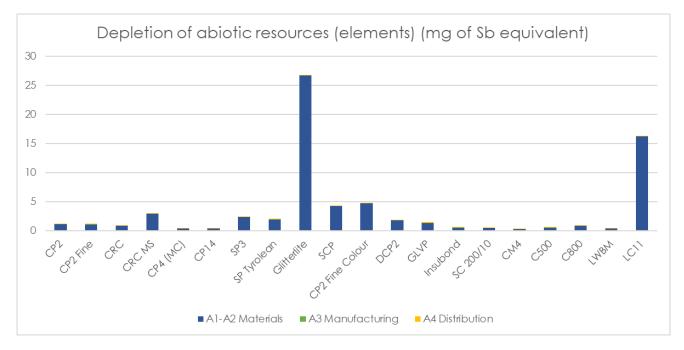


Chart 6: Depletion of mineral resources (non-fossil) of all products in this EPD







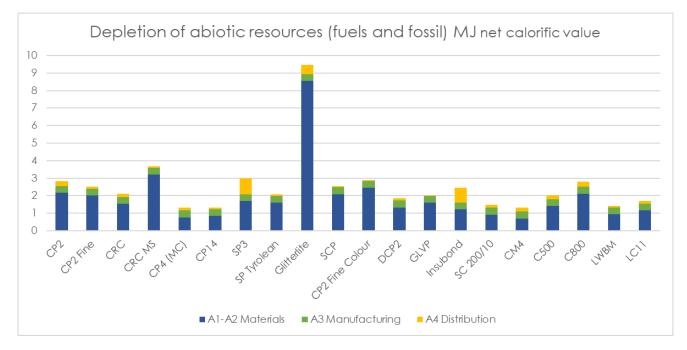


Chart 7: Depletion of fossil resources of all products in this EPD



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Energy resources

It was not possible to distinguish the consumption of electricity and diesel between the different types of Pre mix plaster produced by CONMIX. The direct and indirect total emissions of CO₂e due to electricity consumption are 7,16 g CO₂e per kilogram of Pre mix plaster. The direct and indirect total emissions of CO₂e due to diesel consumption are 9,64 g CO₂e per kilogram of Pre mix plaster.

-)	A3 Manufacturing
Use of RENEWABLE primary energy excluding renewable primary energy resources used as raw materials	0.01
Use of RENEWABLE primary energy resources used as raw materials	<0,01
Total use of RENEWABLE primary energy resources (primary energy and primary energy resources used as raw materials)	0.01

Data in MJ, net calorific value

<u>ه</u>	A3 Manufacturing
Use of NON- RENEWABLE primary energy excluding non- renewable primary energy resources used as raw materials	0.73
Use of NON-RENEWABLE primary energy resources used as raw materials	<0.01
Total use of NON-RENEWABLE primary energy resources (primary energy and primary energy resources used as raw materials)	0.73

Data in MJ, net calorific value



24





Use of resources

The following resources use assessment refers to the production phases (P1-P4) and do not include the distribution phase (A4).

S	A3 Manufacturing	Description
Use of secondary material	<0.01	Use of recycled glass in Glitterlite products.

Data in kg

\approx	A3 Manufacturing Direct use of water	A3 Manufacturing Indirect use of water	A1-A4 Total use of water
Use of net fresh water	1.46e-5	6.07e-2	0,51

Data in m³

	A3 Manufacturing	Description
Use of RENEWABLE secondary fuels	<0,01	No renewable fuels used.
Use of NON-RENEWABLE secondary fuels	0.11	Diesel consumption (net calorific value 10.18 kWh/l)

Data in MJ, net calorific value







Waste disposed

The waste disposal assessment refers to the production phases (A1-A3), distribution phase (A4) is not included.

	A3 Manufacturing	Description
Hazardous waste disposed	<0.01	No hazardous waste disposed
Non-hazardous waste disposed	1.17e-3	Paper/plastic bags, paper cups, plastic/paper sheet/small wooden pieces/ sand more than 5 mm/cementitious powder or marble powder for mixers cleaning
Radioactive waste disposed	<0.01	No nuclear energy used

Data in kg

Other output flows

The following output flows assessment refers to the production phases (A1-A3), distribution phase (A4) is not included.

	A3 Manufacturing
Components for re-use (Kg)	0
Materials for recycling (Kg)	1.17e-3
Materials for energy recovery (MJ)	0
Exported energy (MJ)	0





INFORMATION AND VERIFICATION

Diffusion institution:	The Environmental Footprint Institute Calle CIRCE 49A Madrid 28022 Spain www.environmentalfootprintinstitute.org
EPD registration number:	201124EPD
Published:	22-12-2020
Valid until:	22-12-2023
Product Category Rules:	EN 15804:2012 + A2:2019 Sustainability of construction works. Environmental Product Declarations. Core rules for the product category of construction products.
Product group classification:	UN CPC 37410
Reference year for data:	2020
Geographical scope:	Africa and Middle East

Product category rules (PCR): EN 15804:2012+A2:2019

PCR review was conducted by: The Environmental Footprint Institute. Chair: Alfredo Costalago Contact: info@huellaambiental.org

Independent verification of the declaration and data, according to ISO 14025:2006 and ISO 14040:

□ EPD Process Certification (internal) ⊠ EPD Verification (external)

Third party verifier: Accredited by: The Environmental Footprint Institute







MANDATORY STATEMENTS

Explanatory material can be obtained from EPD owner and/or LCA author. Contact information can be found below.

The verifier and The Environmental Footprint Institute do not make any claim or present any responsibility about the legality of the product.

EPDs within the same product category but from different programmes may not be comparable.

CONTACT INFORMATION

EPD owner:	CONMIX Ltd. 9th Floor, The City Gate Tower Opposite Ansar Mall, P.O. 5936 Sharjah, United Arab Emirates www.conmix.com info@conmix.com
LCA author:	S. Beskirajan, GCAS Quality Certifications P.O.Box 65561, Dubai, UAE www.gcasquality.com info.dubai@gcasquality.com Rubén Jiménez, Solid Forest S.L. CP28703, San Sebastián de los Reyes, SPAIN www.solidforest.com info@solidforest.com
Programme operator:	The Environmental Footprint Institute Calle Circe 49A Madrid, Spain www.environmentalfootprintinstitute.com info@ environmentalfootprintinstitute.com







Environmental Product Declaration of Pre Mix Plasters In accordance with ISO 14025 and EN 15804





REFERENCES

This Environmental Footprint has been developed and diffused following the instructions of the Environmental Footprint Institute. Further information, and the document itself with reference 201124EPD, are available at: www.environmentalfootprintinstitute.org

LCA Report: Life Cycle Inventory of Pre Mix Plasters by Conmix Ltd.

Software: Air.e LCA rev. 3.10 www.solidforest.com

Main database: Ecoinvent 3.6 www.ecoinvent.org

Geographical scope of the EPD: Africa and Middle East

Normative: ISO 14040:2006 "Environmental management -- life cycle assessment -- principles and framework"; ISO 14044:2006 "Environmental management -- life cycle assessment -requirements and guidelines"; ISO 14020 "Environmental Labelling: General Principles"; ISO 14025:2006 "Environmental labels and declarations -- type III environmental declarations -principles and procedures" and EN 15804.

