

Environmental product declaration

in accordance with ISO 14025, ISO 21930 and EN 15804

Owner of the declaration:	Flokk AS
Program operator:	The Norwegian EPD Foundation
Publisher:	The Norwegian EPD Foundation
Declaration number:	NEPD-4278-3511-EN
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ECO Platform reference number:	-
Issue date:	30.12.2022
Valid to:	30.12.2027

HÅG Capisco Puls

Flokk AS

www.epd-norge.no





General information

Product:

HÅG Capisco Puls

Owner of the declaration:

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Declaration number:

NEPD-4278-3511-EN

Place of production:

Flokk - Røros
 Sundveien N-7374 Røros
 Norway

ECO Platform reference number:

Management system:

ISO 14001, ISO 9001, ISO 50001(Norway, Sweden)

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A1:2013 serves as core PCR
 NPCR 026:2018 Part B for furniture

Organisation no:

No 928 902 749

Statement of liability:

The owner of the declaration shall be liable for the underlying information and evidence. EPD Norway shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

Issue date:

30.12.2022

Valid to:

30.12.2027

Declared unit:

1 Pcs HÅG Capisco Puls

Year of study:

2022

Declared unit with option:

A1,A2,A3,A4

Comparability:

EPDs from programmes other than the Norwegian EPD Foundation may not be comparable

Functional unit:

HÅG Capisco Puls 8010 recycled black plastic/snowplow marker variant (including knock down packaging option 1)

Development and verification of EPD:

The declaration has been developed and verified using EPD tool lca.tools ver EPD2020.11, developed by LCA.no AS. The EPD tool is integrated into the company's environmental management system, and has been approved by EPD-Norway

General information on verification of EPD from EPD tools:

Independent verification of data, other environmental information and the declaration according to ISO 14025:2010, § 8.1.3 and § 8.1.4. Individual third party verification of each EPD is not required when the EPD tool is i) integrated into the company's environmental management system, ii) the procedures for use of the EPD tool are approved by EPDNorway, and iii) the process is reviewed annually. See Appendix G of EPD-Norway's General Programme Instructions for further information on EPD tools.

Developer of EPD:

Kenneth Dam Lindegaard Knudsen

Reviewer of company-specific input data and EPD:

Fabio Fava

Verification of EPD tool:

Independent third party verification of the EPD tool, background data and test-EPD in accordance with EPDNorway's procedures and guidelines for verification and approval of EPD tools.

Approved:

Sign

Håkon Hauan, CEO EPD-Norge

Erik Svanes, Norsus AS

(no signature required)

Key environmental indicators	Unit	Cradle to gate A1 - A3
Global warming	kg CO2 eqv	36,70
Total energy use	MJ	564,32
Amount of recycled materials	%	53,86

Product

Market:

Worldwide

Product description:

HÅG's mission is to bring movement and variation to the workplace. HÅG products stimulate intuitive and natural movement of the body and variation of sitting postures leading to improved health and productivity.

The HÅG Capisco Puls is made for greater freedom of movement, variation and natural sitting positions. It gives you an upright sitting posture and a natural curvature in your lower back. While making it easy to sit actively with a semi-standing position.

Perfect for shifting between sitting and standing with a height-adjustable desk. The chair has adjustable seat height, seat depth, back height, backward tilt resistance and lockable tilt.

Product specification

The model studied in this declaration is the HÅG Capisco Puls 8010 recycled black/snowplow marker plastic, including knock down packaging option 1. The model declared does not include any options such as footring, headrest, etc.

The key environmental indicators for the other models and applicable options of the product collection are presented in a table on page 8 of this declaration.

Materials	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Others	0,03	0,24	0,00	0,89
Metal - Aluminium	3,01	23,47	2,92	96,98
Metal - Steel	4,37	34,13	0,14	3,28
Textile - Polyester (PE)	0,03	0,21	0,03	98,15
Textile - Wool	0,00	0,01	0,00	0,00
Glass fibre	0,05	0,43	0,05	100,00
Packaging - Cardboard	0,56	4,37	0,00	0,00
Plastic - Polyurethane (PUR)	0,16	1,22	0,00	0,00
Plastic - Polypropylene (PP)	3,18	24,85	2,95	92,55
Plastic - Polystyrene expandable (EPS)	0,04	0,27	0,00	0,00
Plastic - Polyoxymethylene (POM)	0,11	0,83	0,00	0,00
Rubber, synthetic	0,01	0,05	0,00	0,00
Packaging - Plastic	0,05	0,36	0,00	0,00
Powder coating	0,07	0,54	0,00	0,00
Plastic - Nylon (PA)	0,28	2,18	0,00	0,00
Plastic - Polyamide with glass fibre (PAGF30)	0,04	0,31	0,00	0,00
Plastic - Polyethylene (HDPE)	0,00	0,02	0,00	0,00
Packaging - Paper	0,02	0,16	0,00	0,00
Packaging - Recycled cardboard	0,81	6,34	0,81	100,00
Total:	12,81		6,90	

LCA: Calculation rules

Declared unit:

1 Pcs HÅG Capisco Puls

Cut-off criteria:

All major raw materials and all the essential energy is included. The production processes for raw materials and energy flows with very small amounts (less than 1%) are not included. These cut-off criteria do not apply for hazardous materials and substances.

Data quality:

Specific data for the product composition are provided by the manufacturer. They represent the production of the declared product and were collected for EPD development in the year of study. Background data is based on registered EPDs according to EN 15804, Ostfold Research databases, ecoinvent and other LCA databases. The data quality of the raw materials in A1 is presented in the table below.

Technical data:

Total weight: 11,31 kg (packaging excluded)

Total weight: 12,81 kg (packaging included)

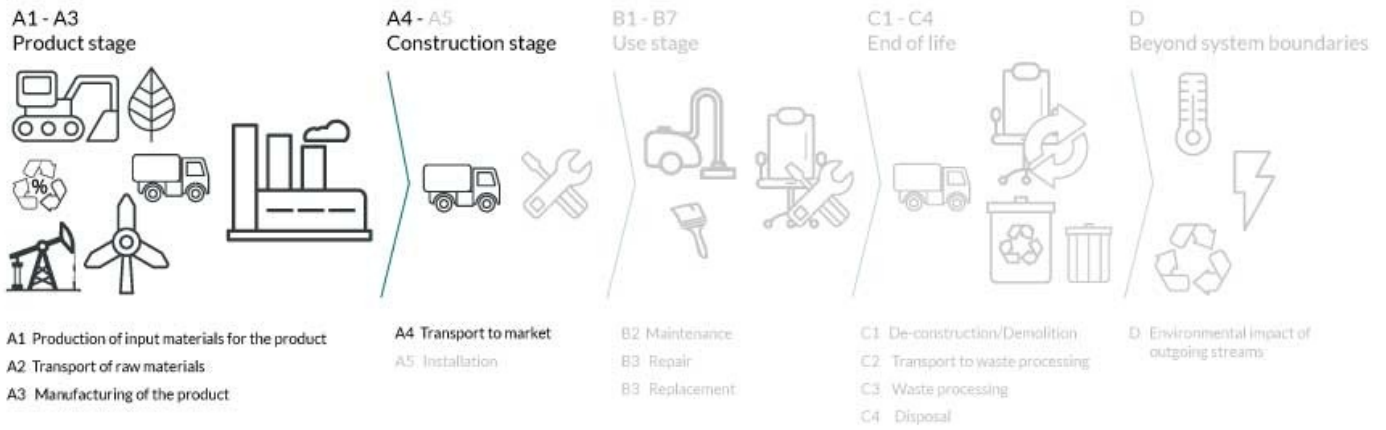
Reference service life, product

Reference service life, building

Allocation:

The allocation is made in accordance with the provisions of EN 15804. Effects of primary production of recycled materials is allocated to the main product in which the material was used. The recycling process and transportation of the material is allocated to this analysis.

System boundary:



Additional technical information:

Product specification (HÅG Capisco Puls 8010):
 Chair height: 455-640 mm (with gas lift 200mm)
 Chair width: 460 mm
 Chair depth: 400-470 mm

LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD.

Transport from production place to user (A4)

Type	Capacity utilisation (incl. return) %	Type of vehicle	Distance km	Fuel/Energy consumption	Unit	Value (l/t)
Truck	55,0 %	Truck, over 32 tonnes, EURO 5	1000	0,022823	l/tkm	22,82
Railway					l/tkm	
Boat					l/tkm	
Other Transportation					l/tkm	

Assembly (A5)

.	Unit	Value
Auxiliary	kg	
Water consumption	m ³	
Electricity consumption	kWh	
Other energy carriers	MJ	
Material loss	kg	
Output materials for waste treatment	kg	
Dust in the air	kg	
VOC emissions	kg	

Use (B1)

.	Unit	Value

Maintenance (B2)/Repair (B3)

.	Unit	Value
Maintenance cycle*		
Auxiliary		
Other resources		
Water consumption	m ³	
Electricity consumption	kWh	
Other energy carriers	MJ	
Material loss	kg	
VOC emissions	kg	

Replacement (B4)/Refurbishment (B5)

.	Unit	Value
Replacement cycle*		
Electricity consumption	kWh	
Replacement of worn parts		
* Described above if relevant		

Operational energy (B6) and water consumption (B7)

.	Unit	Value
Water consumption	m ³	
Electricity consumption	kWh	
Other energy carriers	MJ	
Power output of equipment	kW	

End of Life (C1, C2)

.	Unit	Value
Hazardous waste disposed	kg	
Collected as mixed construction waste	kg	
Reuse	kg	
Recycling		
Energy recovery		
To landfill	kg	

Transport to waste processing (C2)

Type	Capacity utilisation (incl. return) %	Type of vehicle	Distance km	Fuel/Energy consumption	Unit	Value (l/t)
Truck					l/tkm	
Railway					l/tkm	
Boat					l/tkm	
Other Transportation					l/tkm	

Scenarios after A1-A4 are not included

LCA: Results

The LCA results are presented below for the declared unit defined on page 2 of the EPD document.

System boundaries (X=included, MND=module not declared, MNR=module not relevant)

Product stage				Construction installation stage	User stage								End of life stage				Beyond the system boundaries
Raw materials	Transport	Manufacturing	Transport	Assembly	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	
X	X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	

Environmental impact

Parameter	Unit	A1	A2	A3	A4
GWP	kg CO ₂ -eq	3,52E+01	8,90E-01	5,92E-01	1,12E+00
ODP	kg CFC11 -eq	1,90E-06	1,72E-07	3,54E-08	2,18E-07
POCP	kg C ₂ H ₄ -eq	1,29E-02	1,43E-04	1,28E-04	1,81E-04
AP	kg SO ₂ -eq	1,47E-01	2,90E-03	3,04E-03	3,63E-03
EP	kg PO ₄ ³⁻ -eq	4,19E-02	4,86E-04	1,05E-03	6,10E-04
ADPM	kg Sb -eq	1,24E-03	1,99E-06	1,52E-05	2,52E-06
ADPE	MJ	3,61E+02	1,38E+01	3,69E+00	1,75E+01

GWP Global warming potential; ODP Depletion potential of the stratospheric ozone layer; POCP Formation potential of tropospheric photochemical oxidants; AP Acidification potential of land and water; EP Eutrophication potential; ADPM Abiotic depletion potential for non fossil resources; ADPE Abiotic depletion potential for fossil resources

Reading example: 9,0 E-03 = 9,0*10⁻³ = 0,009

*INA Indicator Not Assessed

Resource use

Parameter	Unit	A1	A2	A3	A4
RPEE	MJ	4,92E+01	2,51E-01	7,54E+01	3,17E-01
RPEM	MJ	9,07E+00	0,00E+00	0,00E+00	0,00E+00
TPE	MJ	5,83E+01	2,51E-01	7,54E+01	3,17E-01
NRPE	MJ	4,18E+02	1,43E+01	6,98E+00	1,81E+01
NRPM	MJ	3,08E+01	0,00E+00	0,00E+00	0,00E+00
TRPE	MJ	4,49E+02	1,43E+01	6,98E+00	1,81E+01
SM	kg	6,90E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	2,36E-02	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	-5,20E-04	0,00E+00	0,00E+00	0,00E+00
W	m ³	3,06E-01	3,36E-03	1,46E-02	4,26E-03

RPEE Renewable primary energy resources used as energy carrier; RPEM Renewable primary energy resources used as raw materials; TPE Total use of renewable primary energy resources; NRPE Non renewable primary energy resources used as energy carrier; NRPM Non renewable primary energy resources used as materials; TRPE Total use of non renewable primary energy resources; SM Use of secondary materials; RSF Use of renewable secondary fuels; NRSF Use of non renewable secondary fuels; W Use of net fresh water

Reading example: 9,0 E-03 = $9,0 \cdot 10^{-3} = 0,009$

*INA Indicator Not Assessed

End of life - Waste

Parameter	Unit	A1	A2	A3	A4
HW	kg	2,93E-02	7,60E-06	1,87E-02	9,61E-06
NHW	kg	2,50E+01	1,29E+00	3,73E-01	1,64E+00
RW	kg	INA*	INA*	INA*	INA*

HW Hazardous waste disposed; NHW Non hazardous waste disposed; RW Radioactive waste disposed

Reading example: 9,0 E-03 = $9,0 \cdot 10^{-3} = 0,009$

*INA Indicator Not Assessed

End of life - Output flow

Parameter	Unit	A1	A2	A3	A4
CR	kg	6,50E-06	0,00E+00	0,00E+00	0,00E+00
MR	kg	2,06E-02	0,00E+00	2,54E+00	0,00E+00
MER	kg	7,84E-02	0,00E+00	1,41E-03	0,00E+00
EEE	MJ	INA*	INA*	INA*	INA*
ETE	MJ	INA*	INA*	INA*	INA*

CR Components for reuse; MR Materials for recycling; MER Materials for energy recovery; EEE Exported electric energy; ETE Exported thermal energy

Reading example: 9,0 E-03 = $9,0 \cdot 10^{-3} = 0,009$

*INA Indicator Not Assessed

Additional Norwegian requirements

Greenhouse gas emissions from the use of electricity in the manufacturing phase

National production mix from import, low voltage (production of transmission lines, in addition to direct emissions and losses in grid) of applied electricity for the manufacturing process (A3).

Electricity mix	Data source	Amount	Unit
Energy, electricity, Nordic average, hydro: 1 kWh	Østfoldforskning	10,19	g CO ₂ -ekv/kWh

Dangerous substances

The product contains no substances given by the REACH Candidate list or the Norwegian priority list.

Indoor environment

GREENGUARD Gold certified

Additional environmental information

Key environmental indicators for variants for this EPD: Cradle to Gate analyse from A1 to A3

Variant number	Global warming (kg CO ₂)	Total energy use (MJ)	Share of recycled material in product(%)
HÅG Capisco Puls 8001 - Plastic seat w/ comfort pad (Cura/Gabriel) - No packaging	26,91	423,46	46,25
HÅG Capisco Puls 8001 - Recycled Plastic seat (Snowplough marker & Black) w/ comfort pad (Cura/Gabriel) - No packaging	26,39	411,27	54,40
HÅG Capisco Puls 8010 - Plastic chair w/ comfort pad (Cura/Gabriel) - No packaging	36,11	576,84	37,76
HÅG Capisco Puls 8010 - Recycled Plastic chair (Snowplough marker & Black) w/ comfort pad (Cura/Gabriel) - No packaging	33,96	529,66	53,81
HÅG Capisco Puls 8002 - Plastic seat w/ extra cushion (Cura/Gabriel) - No packaging	28,24	450,73	45,17
HÅG Capisco Puls 8002 - Recycled Plastic seat (Snowplough marker & Black) w/ extra cushion (Cura/Gabriel) - No packaging	27,56	435,67	52,51
HÅG Capisco Puls 8020 - Plastic chair w/ extra cushion (Cura/Gabriel) - No packaging	37,45	604,10	37,24
HÅG Capisco Puls 8020 - Recycled Plastic chair (Snowplough marker & Black) w/ extra cushion (Cura/Gabriel) - No packaging	35,45	559,38	52,77

Key environmental indicators for options for this EPD: Cradle to Gate analyse from A1 to A3

Option number	Global warming (kg CO ₂)	Total energy use (MJ)	Share of recycled material in product(%)
HÅG Footring	9,80	118,44	75,01
Packaging 1 (Small box, not assembled - used in declared unit)	2,74	34,66	54,22
Packaging 2 (Large box, fully assembled)	7,14	86,02	66,60

Bibliography

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

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NPCR 026 Part B for Furniture. Ver. 2.0 October 2018, EPD-Norge.

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