

# ENVIRONMENTAL PRODUCT DECLARATION

# Lares Circular Meeting diameter In accordance with ISO14025

# Steelcase

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System, www.environdec.com

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PCR 2012-19, Furniture, except seats and mattresses. *Validity until 17-06-2023.* Version 2.01, *UN CPC 3812 /3813 /3814* 

"An EPD should provide current information, and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at <a href="https://www.environdec.com">www.environdec.com</a>"





# **Programme information**

Programme	The International EPD® System EPD International AB Box 210 60 SE-100 31 Stockholm Sweden  www.environdec.com info@environdec.com				
Product category rules (PCR):	PCR 2012-19, Furniture, except seats and mattresses. Validity until 17-06-2023. Version 2.01, UN CPC 3812/3813/3814				
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Independent third-party verification of the declaration and data, according to ISO 14025:2006:					
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Approved by:	The International EPD® System				
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The EPD owner has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programmes may not be comparable.



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## **Company Information**

Steelcase leads the way in creating great experiences by offering a range of architecture, furniture and technology products and services designed to help people reach their full potential. Our comprehensive portfolio is anchored by three core brands: Steelcase, Coalesse and Turnstone. Together with our partners, we design spaces to help people work, learn and heal.

And because protecting the environment is in our DNA, we drive sustainable social, economic and environmental change through our decisions and actions. Steelcase is a company certified in the following standards: ISO9001, ISO14001, ISO14006, PEFC y FSC® (FSC-C003932).

At Steelcase, we don't just try to do what's right, we try to do what's best — for people and for the planet.

### **Contact Information / Manufacturing**

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#### **Product Information**

The chosen product is the table LARES with reference ARES00220.

The design and manufacturing of *Table Lares*Circular Meeting diameter 1100 H1050 is

carried out in our factory in Madrid.

The table Lares is a family of ergonomics solutions, that offers different versions, which helps our clients to find their petitions.

Lares Circular Meeting diameter 1100 H1050 has been designed thinking in our clients. This table has multiples combinations and different finishes.

Following there are the features of this table:

- Board dimensions: diameter 1.100 mm
- Board bilaminate: Nieve WY.
- Wood feet and steel frame
- High 1.050 mm.



#### LCA Information

#### **Functional Unit**

The functional unit consists in a table called *Lares Circular Meeting diameter 1100 H1050*, operating for 15 years of useful life, 5 days a week, 8 hours for day.

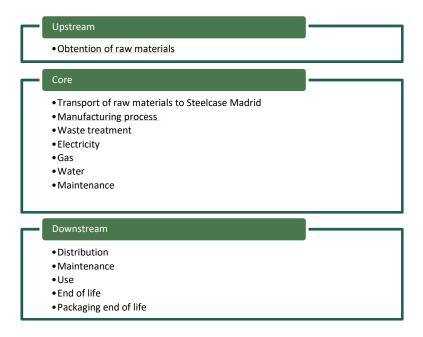
#### System boundaries

The system boundaries include the entire life cycle of the product from raw materials (process and maintenance), transport, distribution, packaging, use and end of life.

#### System scope

The scope includes the life cycle, from the obtained raw material, manufacturing, use and end of life. The system has been divided in 3 phases:

- UPSTREAM: includes the obtention of the raw materials.
- CORE: includes transport of raw materials to our Steelcase factory in Madrid, manufacturing process and waste treatment.
- DOWSTREAM: includes product distribution, maintenance, use of product and end of life (including the packaging).



This document has been created taking under consideration the environmental impact of raw materials and their transport, transformation process, waste treatment, the distribution process and the *Lares Circular Meeting diameter 1100 H1050* end of life.





Due there are products that have not started the sale when the EPD process is made, or we do not know how the national market may be changing, the data of Eco-design Management System will be taken as references. In this case the product taken as a reference is DOUE and the distribution percentages are as follow:

- Community of Madrid 41.40% (Road Transport)
- Rest 55,40% (Road transport)
- Canary Island, Balearics Island, C.A. de Melilla y Ceuta 3.20% (Road transport and Marine transport)

All the information taken under consideration has been given directly by Steelcase Madrid. Information about raw materials and transport has been given directly by our providers. All the data has been collected for the reference year 2019.

Following table shows Kg materials and their percentage present in *Lares Circular Meeting diameter* 1100 H1050

Materiales	Kg	%
ABS	0,30	1,08
STEEL	4,99	18,0
PARTICLE BOARD	15,1	54,5
WATER-BASED VARNISH	0,44	1,59
LDPE (PACKAGING FILM)	0,45	1,62
LDPE (PACKAGING PROTECTORS)	0,61	2,19
BEECHWOOD	5,25	18,9
PA6	0,03	0,10
POWDER PAINT	0,07	0,26
ZAMAK	0,04	0,13
STEEL (FURNITURE FITTINGS)	0,45	1,62
ADHESIVE	0,01	0,04
TOTAL	27,76	100

Neither the product nor packaging contain substances present in the REACH list.

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#### **Allocation rules**

The present study has been considered necessary to make a physical allocation (depending on the units produced) for the consumption of electricity, water, gas and oil.

#### **Exclusions**

In this process we have not taken under consideration the duct tape used it, due it is less than 1% of the total weight of *Lares Circular Meeting diameter 1100 H1050* 



#### **Environmental indicators**

The Life cycle of Lares Circular Meeting diameter 1100 H1050 includes: waste generated (which are classified as hazardous and non-hazardous), energy consumption (renewal and non-renewal) and other six categories as well.

The indicators have been divides in three phases: Upstream, Core and Downstream, that was recommended by reference document PCR 2012:19 Furniture, excepts seats and mattresses (version 2.01). (Product category classification: UN CPC 3812/3813/3814).

#### **Environmental impacts**

The environmental performance of *Lares Circular Meeting diameter 1100 H1050* for 15 years of useful life has been calculated according to CML-IA V4.8 August 2016 methodology.

ENVIRONMENTAL IMPACT							
PARAMETER		UNIT	UPSTREM	CORE	DOWNSTREAM	TOTAL	
	FOSIL	KgCO2 eq.	3,19E+01	1,35E+01	9,71E+00	5,51E+01	
GLOBAL	BIOGENIC	KgCO2 eq.	3,56E-01	2,33E-02	1,42E-03	3,81E-01	
WARMING POTENTIAL (GWP)	LAND USE AND LAND TRANSFORMATION	KgCO2 eq.	3,88E-02	6,58E-01	7,88E-04	6,98E-01	
	TOTAL	KgCO2 eq.	3,23E+01	1,42E+01	9,71E+00	5,62E+01	
ACIDIFICATIO	ACIDIFICATION POTENTIAL (AP)		1,74E-01	1,14E-01	4,84E-02	3,36E-01	
EUTROPHICATI	EUTROPHICATION POTENTIAL (EP)		3,10E-02	8,60E-03	1,74E-02	5,70E-02	
FORMATION POTENTIAL OF TROPOSPHERIC OZONE (POCP)		KgC2H4 eq.	1,88E-02	4,05E-03	3,04E-03	2,59E-02	
ABIOTIC DEPLETION POTENTIAL - ELEMENTS		KgSb eq.	4,86E-04	3,33E-05	8,28E-08	5,19E-04	
ABIOTIC DEPLETION POTENTIAL - FOSIL FUELS		MJ, net calorific value	4,74E+02	2,08E+02	1,38E+02	8,20E+02	
WATER SCARCITY POTENTIAL		m3 eq.	1,80E+01	5,10E+00	3,81E+00	2,69E+01	





#### **Energy sources**

USE OF RESOURCES (PRIMARY AND SECUNDARY RESOURCES)						
PARAMETER		UNIT	UPSTREM	CORE	DOWNSTREAM	TOTAL
PRIMARY ENERGY	USE OF ENREGY CARRIER	MJ, net calorific value	1,39E+02	5,60E+01	8,46E-01	1,96E+02
RESOURCES - RENEWABLE	USE AS RAW MATERIALS	MJ, net calorific value	6,16E+02	0,00E+00	0,00E+00	6,16E+02
	TOT	AL	7,55E+02	5,60E+01	8,46E-01	8,12E+02
PRIMARY ENERGY RESOURCES - NON- RENEWABLE	USE AS ENERGY CARRIER	MJ, net calorific value	-1,08E+02	3,06E+02	1,40E+02	3,38E+02
	USES AS RAW MATERIALS	MJ, net calorific value	6,16E+02	0,00E+00	0,00E+00	6,16E+02
	TOTA	<b>AL</b>	5,08E+02	3,06E+02	1,40E+02	9,54E+02
SECONDARY M	ATERIAL	KG	1,68E+01	NA	NA	1,68E+01
RENEWABLES SECONDARY FUELS		MJ, net calorific value	NA	NA	NA	NA
NON-RENEWABLE SECONDARY FUELS		MJ, net calorific value	NA	NA	NA	NA
NET USE OF FRESH WATER		m3	NA	1,90E-02*	1,00E-01	1,19E-01

\* USE OF WATER BY PRODUCTION UNIT



#### **Waste generation**

WASTE PRODUCTION						
PARAMETER	UNIT	UPSTREM	CORE	DOWNSTREAM	TOTAL	
HAZARDOUS WASTE DISPOSED	KG	1,40E-03	2,13E-04	3,14E-05	1,64E-03	
NON - HAZARDOUS WASTE DISPOSED	KG	3,95E-03	1,74E-01	3,38E-05	1,78E-01	
RADIOCATIVE WASTE DISPOSED	KG	1,14E-03	1,73E-03	9,91E-04	3,86E-03	

WASTE PRODUCTION OUTPUT FLOWS							
PARAMETER	UNIT	UPSTREM	CORE	DOWNSTREAM	TOTAL		
COMPONENTS FOR REUSE	KG	0	0	2,51E-01	2,51E-01		
MATERIAL FOR RECYLING	KG	0	1,07E+01	2,76E+01	3,83E+01		
MATERIALS FOR ENERGY RECOVERY	KG	0	0	1,75E-01	1,75E-01		
EXPORTED ENERGY, ELECTRICITY	MJ	0	0	0	0		
EXPORTED ENERGY, THERMAL	MJ	0	0	0	0		

### $Other\ environmental\ impacts$

OTHER POTENTIAL ENVIRONMENTAL IMPACTS							
PARAMETER	UNIT	UPSTREM	CORE	DOWNSTREAM+FIN CICLO VIDA	TOTAL		
HUMAN TOXICITY, CANCER IMPACTS	CASES	1,80E-06	7,63E-08	1,18E-08	1,89E-06		
HUMAN TOXICITY, NON- CANCER IMPACTS	CASES	4,61E-06	1,34E-06	4,16E-07	6,37E-06		
FRESH WATER ECOTOXICITY	PAF m3 day	9,74E+03	1,57E+03	6,72E+02	1,20E+04		
LAND USE	SEPECIES YR	1,04E-07	1,08E-08	1,01E-10	1,15E-07		



#### **Additional information**

#### **Use recommendation**

- To guarantee an adequate life cycle it is necessary to clean the surface two days a week with a wet cloth.
- For daily cleaning it is recommended to use a soft duster
- Wood components do not emit formaldehydes in accordance with the E1 reduced emission standard (EN13986)
- Lares table has been designed to be easy to update and repair, being able to be easily disassembled using hand tools

#### **Transport**

Both the weight and the volume of the packaging have been reduced to a minimum,
 which means less use of energy for transport.

#### **Materials**

- Lares contains 43.48% of recycled materials (wood and steel)
- Lares's components are 97,70% recyclables.
- Lares does NOT contain hazardous materials (PVC, cadmium, hexavalent lead, harmful additives as combustion retardants)
- Packaging contains LDPE

#### **Production**

- Lares has been designed to achieve a minimum environmental impact.
- The adhesive used in this process doesn't contains COVs
- Steelcase Madrid factory has the following certs: ISO 14001, ISO 14006, ISO 9001, PEFC y FSC.
- Paint used doesn't contain COV or heavy metals.
- The natural wood parts of this product have a water based varnished process.

#### Elimination

- All the plastic parts weighing over 50g of the product (not packaging) are marked according to ISO11469 for facilitating the recycling of these products.
- Packaging materials as 100% recyclable.
- All the materials at their end of life have been considered in a recycling scenario, except PA6.

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#### Recommendations

Once it is decided to end the useful life of Lares Circular Meeting diameter 1100 H1050, it has been designed so its components can be separated and recycled.

#### Remarks

- Data shown in this declaration will be valid as long as there are no significant changes in the process analysed.
- Results obtained are not comparable for other product references or about other declarations,
   drawn up based on another certification system.
- The verifier and the programme operator do not make any claim nor have any responsibility of the legality of the product.

#### References

- General Programme Instructions of the International EPD® System. Version 3.0.
- PCR 2012-19, Furniture, except seats and mattresses. Version: 2.01(Product category classification: UN CPC 3812/3813/3814)
- ISO 14025:2006 environmental Label and declarations -Type III environmental declarations-Principles and procedures
- ISO 14040:2006 Environmental Management -Life cycle assessment- Principles and framework
- ISO 14044:2006 Environmental Management -Life cycle assessment- Requirements and guidelines
- ECOINVENT Ecoinvent Centre, <u>www.ECO-invent.org</u>
- SIMAPRO SimaPro LCA Software, Pré Consultants, the Netherlands, <u>www.pre-sustainability.com</u>. SimaPro 9.0.0.48 multiuse. Data Base Ecoinvent 3.5

