Forma 5

EPD Environmental Product Declaration

Program GLOVE
REF: SGL00
Dimensions: 84,5X54X54 cm



Glove family, designed by Josep Lluscà, is marked by functionality, getting chairs where the versatility is defined from the same aesthetic line. Therefore, its design with smooth and rounded shapes and a current look for the whole family.

RAW MATERIALS USED (PACKAGING INCLUDED)

	Kg of raw materials included in the product	% of raw materials included in the product
STEEL	2,745	55,53%
POLYPROPILENE	2,089	42,26%
POLYSTIRENE	0,05	1,01%
EPOXI (POWDER)	0,059	1,19%
Total	**4,943**	**100%**

Recycled Materials: 55,81%

Recyclable Materials: 100%

This Environmental Product Declaration have been calculated and drafted in accordance with ISO14025 Type III standard, and based on "PCR 2012-19, Furniture, except seats and mattresses" version 2.01.

Glove, life cycle information

FUNCIONAL UNIT

The functional unit consists of the Glove chair operating for a 15-year useful life.

SYSTEM LIMITS

The limits of the system include raw material, production (includes processes and facility maintenance), transportation, packaging, distribution, use, and end-of-life of both packaging and product.

SYSTEM SCOPE

The scope of the system includes the whole life cycle of the product, from obtaining the raw material, manufacturing, use and end of life. The system has been divided into three phases:

- ✓ UPSTREAM: including raw materials production
- ✓ CORE: including raw material transport to Forma5 (Spain, Seville), product manufacturing process and waste treatment.
- ✓ DOWNSTREAM: Distribution to the customer, maintenance, use of the product and both the end of life of the product and the packaging has been included.

CERTIFICATES

- ISO 9001:2015
- ISO 14001:2015
- ISO 14006:2011
- ISO 45001:2018
- TECNALIA QUALITY BRAND

Grupo Forma 5., S.L.u.
Made in Spain, UE.

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Official College of Technical Engineers of Sevilla (COGITISE).
Membership number: 9129.

GONZALEZ VALENCIA LUIS CARLOS - 28729561P

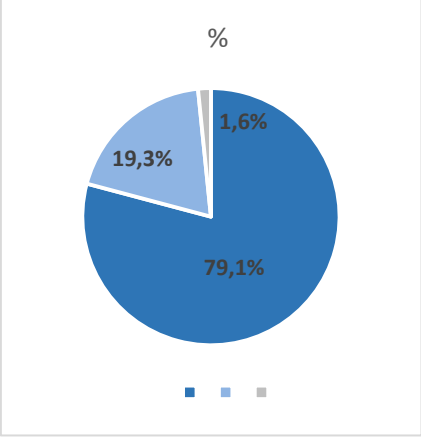
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IMPACTS PER CATEGORIES

EPD 2018[1] Categories indicators	Unit	CORE Impact result	UPSTREAM Impact result	DOWNSTREAM Impact result	TOTAL
Abiotic depletion, elements	kg Sb eq	2,675E-09	1,120E-06	2,229E-12	1,117E-06
Acidification (fate not incl.)	kg SO2 eq	4,271E-02	1,724E-01	1,139E-03	2,163E-01
Photochemical oxidation	kg NMVOC	1,647E-02	6,768E-02	1,377E-03	8,553E-02
Eutrophication	kg PO4--- eq	2,579E-03	1,980E-02	1,822E-04	2,257E-02
Global warming (GWP100a)	kg CO2 eq	6,839E+00	3,533E+01	1,901E-01	4,236E+01
Abiotic depletion, fossil fuels	MJ	3,776E+02	1,979E+02	5,136E+01	6,268E+02
Ozone layer depletion (ODP)	kg CFC-11 eq	3,904E-07	1,828E-06	2,458E-09	2,221E-06
Water scarcity	m3 eq	1,723E+00	5,504E+00	2,488E-03	7,230E+00

Table 1. Impacts per categories in Glove chair family.

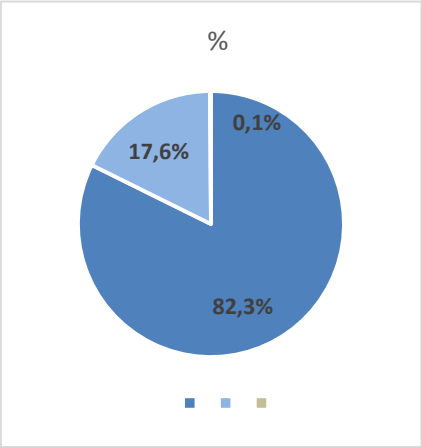
Global warming (Climate change)



Phase	Unit	Total
Upstream	kg CO2 eq	5,60E+01
Core	kg CO2 eq	7,48E+00
Downstream	kg CO2 eq	3,45E-01

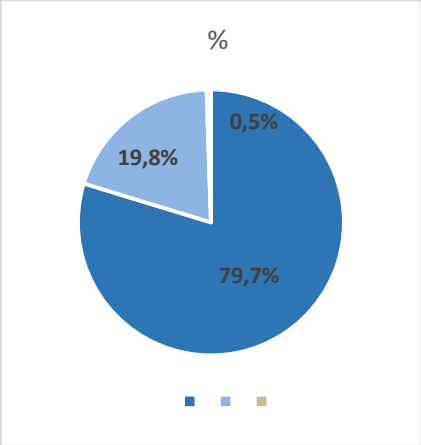
[1] This method is the successor of EPD (2013) and is intended for the creation of Environmental Product Declarations (EPDs), as published on the website of the Swedish Environmental Management Council (SEMC). For more information see also General programmer instructions for the international EPD System 3.0 of 11 December 2017.
The latest update to the recommendations included in this method is from 2018-06-08 (adding Water Scarcity Footprint). Contact info: http://www.environdec.com/.

Ozone layer depletion



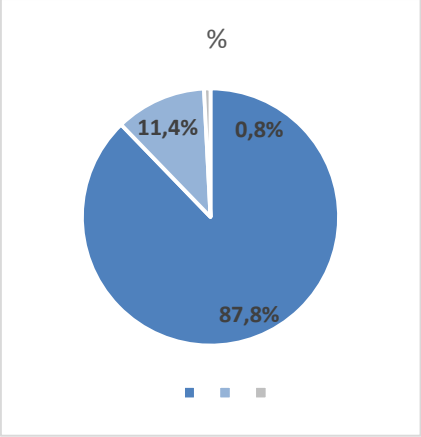
Phase	Unit	Total
Upstream	kg CFC-11 eq	1,828E-06
Core	kg CFC-11 eq	3,904E-07
Downstream	kg CFC-11 eq	2,458E-09

Acidification



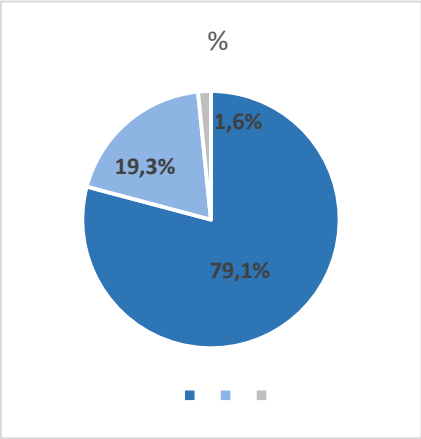
Phase	Unit	Total
Upstream	kg SO2 eq	1,724E-01
Core	kg SO2 eq	4,271E-02
Downstream	kg SO2 eq	1,139E-03

Eutrophication



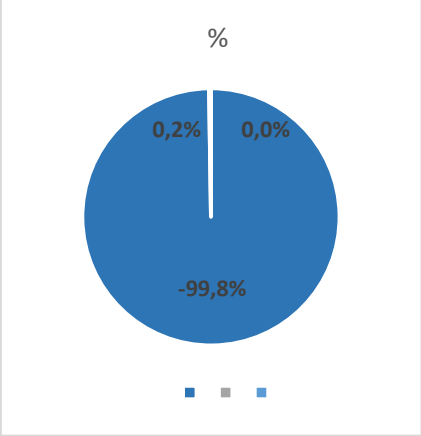
Phase	Unit	Total
Upstream	kg PO4--- eq	1,980E-02
Core	kg PO4--- eq	2,579E-03
Downstream	kg PO4--- eq	1,822E-04

Photochemical oxidation



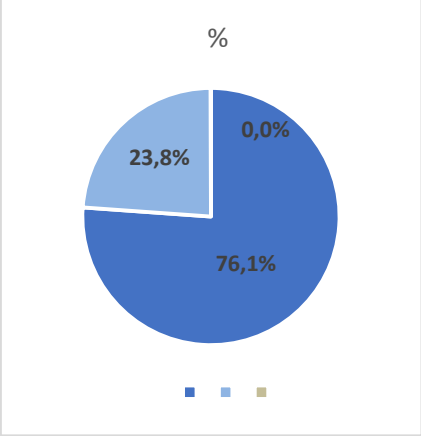
Phase	Unit	Total
Upstream	kg NMVOC	6,768E-02
Core	kg NMVOC	1,647E-02
Downstream	kg NMVOC	1,377E-03

Abiotic depletion



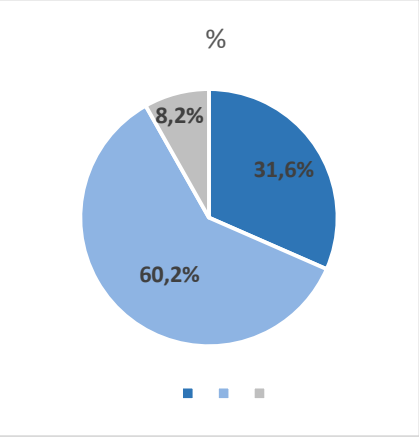
Phase	Unit	Total
Upstream	kg Sb eq	1,120E-06
Core	kg Sb eq	2,675E-09
Downstream	kg Sb eq	2,229E-12

Water scarcity



Phase	Unit	Total
Upstream	m^3	5,504E+00
Core	m^3	1,723E+00
Downstream	m^3	2,488E-03

Abiotic Depletion fossil fuels



Phase	Unit	Total
Upstream	MJ	1,979E+02
Core	MJ	3,776E+02
Downstream	MJ	5,136E+01

USE OF RESOURCES

Resources	Unit	Core	Upstream	Fin de Viuda
Products				
Energy non renewable	MJ	1,34E+03	3,65E+01	2,70E+00
Energy renewable	MJ	1,51E+06	6,95E+03	0,00E+00
Secondary fuel	MJ	5,27E+05	1,21E-03	2,52E+06
Secondary fuel renewable	MJ	0,00E+00	0,00E+00	0,00E+00
Materials	kg	5,79E+01	4,61E+03	3,38E-01
Fresh water used	m^3	1,18E+00	1,45E+01	2,12E-02

CATEGORIES OF WASTE AND OUTPUT FLOWS

Resources	Unit	Core	Upstream	Downstream
Products				
Hazardous waste	kg	9,13E-04	4,13E-02	5,36E-02
Non-hazardous waste	kg	1,33E-01	1,07E+00	1,10E-01
Radioactive waste	kg	4,42E-03	2,57E-01	2,15E-07