

esPattio

EPD Environmental Product Declaration



Program BRINDIS
REF: PBD00
Dimensions: 77,5 x 50 x 54 cm

Available in three different bases, three heights, and in unupholstered, upholstered seat, and fully upholstered versions, Brindis is an ideal solution for workspace, educational, hospitality projects, or for training, collaboration, or meeting areas.

RAW MATERIALS USED (PACKAGING INCLUDED)

	Kg of raw materials included in the product	% of raw materials included in the product
ALUMINIUM	0,460	5,39%
STEEL	2,994	35,11%
POLYAMIDE 15%F	0,150	1,76%
PLYWOOD	2,530	29,67%
POLYPROPYLENE	0,016	0,19%
POLYETHYLENE	0,068	0,80%
CARDBOARD	2,309	27,08%
Total	8,527	100%

% Recycled Materials: 43,89 %

% Recyclable Materials: 94,32 %

Brindis, life cycle information

FUNCIONAL UNIT

The functional unit consists of a Brindis 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
- MARCA DE CALIDAD TECNALIA

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

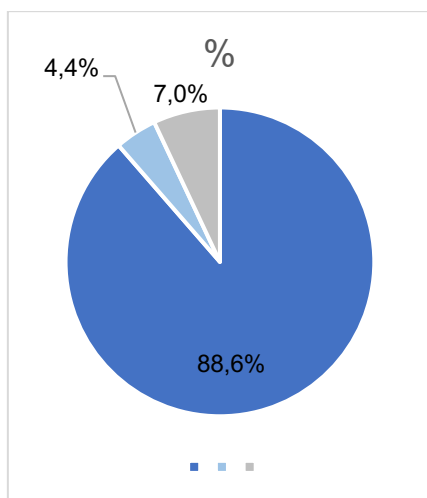
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Official College of Technical Engineers of Sevilla (COGITISE).
Membership number: 9129.

IMPACTS PER CATEGORIES

EPD 2018 Categories	Unit	CORE Impact result	UPSTREAM Impact result	DOWNSTREAM Impact result	TOTAL
Abiotic depletion, elements	kg Sb eq	4,656E-09	8,341E-07	2,378E-14	8,388E-07
Acidification (fate not incl.)	kg SO2 eq	2,909E-04	9,122E-03	1,615E-03	1,103E-02
Photochemical oxidation	kg NMVOC	2,188E-04	7,695E-03	2,270E-03	1,018E-02
Eutrophication	kg PO4 ⁻⁻⁻ eq	2,379E-03	1,189E-03	2,797E-04	3,848E-03
Climate Change(Carbon Footprint)	kg CO2 eq	-1,687E-01	3,435E+00	2,722E-01	3,539E+00
Abiotic depletion, fossil fuels	MJ	1,610E+02	8,434E+01	2,189E+01	2,672E+02
Ozone layer depletion (ODP) (optional)	kg CFC-11 eq	-2,765E-12	1,481E-07	2,270E-03	2,271E-03
Water scarcity	m3 eq	1,430E-02	1,538E-01	8,713E-02	2,552E-01

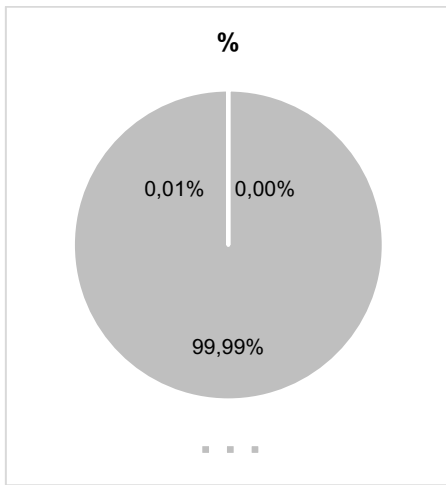
Table 1. Impacts per Categories in Brindis

CLIMATE CHANGE (CARBON FOOTPRINT)



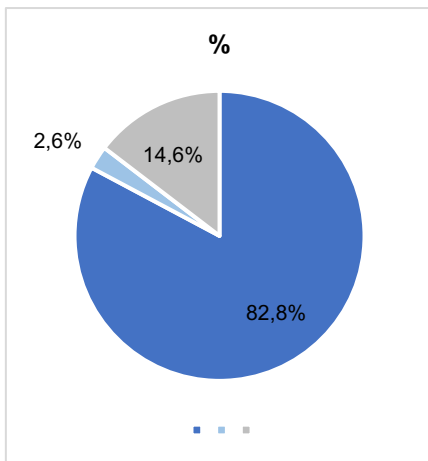
Phase	Unit	Total
Upstream	kg CO2 eq	3,44E+00
Core	kg CO2 eq	-1,693-01
Downstream	kg CO2 eq	2,72E-01

OZONE LAYER DEPLETION



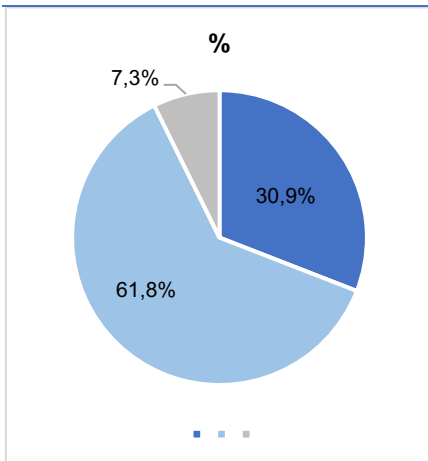
Phase	Unit	Total
Upstream	kg CFC-11 eq	1,481E-07
Core	kg CFC-11 eq	-2,765E-12
Downstream	kg CFC-11 eq	2,270E-03

ACIDIFICATION



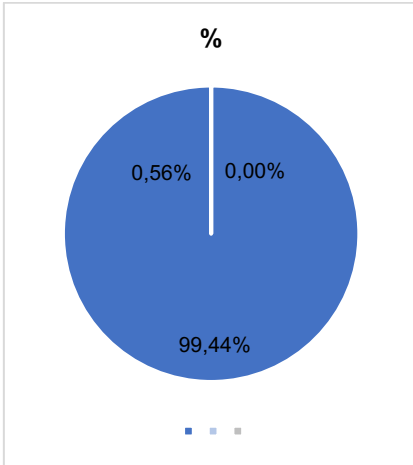
Phase	Unit	Total
Upstream	kg SO2 eq	9,122E-03
Core	kg SO2 eq	2,909E-04
Downstream	kg SO2 eq	1,615E-03

EUTROPHICATION



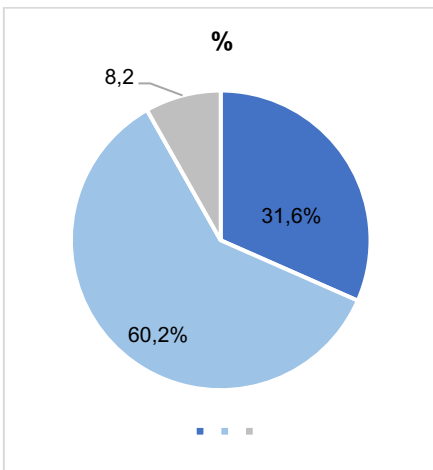
Phase	Unit	Total
Upstream	kg PO4--- eq	1,189E-03
Core	kg PO4--- eq	2,379E-03
Downstream	kg PO4--- eq	2,797E-04

ABIOTIC DEPLETION



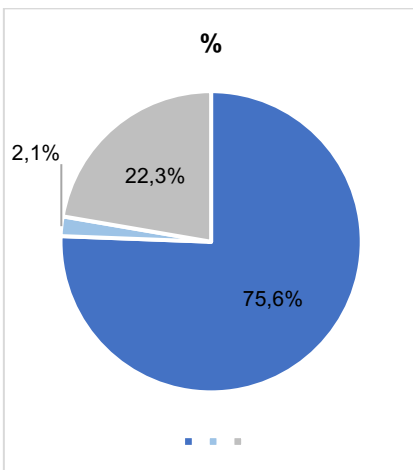
Phase	Unit	Total
Upstream	kg Sb eq	8,341E-07
Core	kg Sb eq	4,656E-09
Downstream	kg Sb eq	2,378E-14

ABIOTIC DEPLETION FOSSIL FUELS



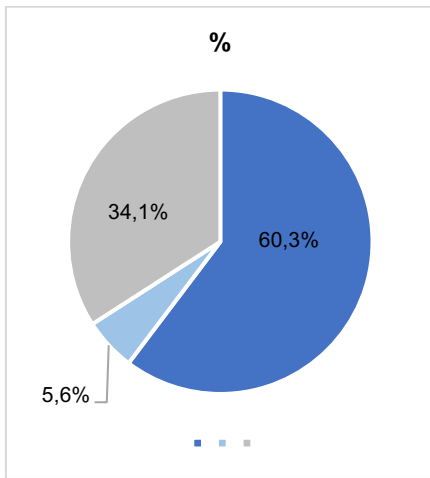
Phase	Unit	Total
Upstream	MJ	8,434E+01
Core	MJ	1,610E+02
Downstream	MJ	2,189E+01

PHOTOCHEMICAL OXIDATION



Phase	Unit	Total
Producto	kg NMVOC	7,695E-03
Core	kg NMVOC	2,188E-04
Downstream	kg NMVOC	2,270E-03

WATER SCARCITY



Phase	Unit	Total
Producto	m3 eq	1,538E-01
Core	m3 eq	1,430E-02
Downstream	m3 eq	8,713E-02

USE OF RESOURCES

RESOURCES	Unit	CORE	UPSTREAM	DOWNSTREAM
Products				
Energy non renewable	MJ	2,28E+00	3,68E+02	5,64E-02
Energy renewable	MJ	5,17E+01	4,33E+01	0,00E+00
Secondary fuel	MJ	0,00E+00	0,00E+00	7,64E+05
Secondary fuel renewable	MJ	0,00E+00	0,00E+00	0,00E+00
Materials	kg	5,53E-03	1,01E+02	7,66E+00
Fresh water used	m ³	2,59E-02	4,67E+01	3,58E-02

CATEGORIES OF WASTE AND OUTPUT FLOWS

RESOURCES	Unit	CORE	UPSTREAM	DOWNSTREAM
Products				
Hazardous waste	kg	3,13E-08	9,92E-03	2,87E-02
Non-hazardous waste	kg	1,63E+01	4,55E+01	5,91E-02
Radioactive waste	kBq	2,48E+00	4,34E+02	1,15E-07