ENVIRONMENTAL PRODUCT DECLARATION

CATIFA 46

with polypropylene shell four-leg base model, in chromed or painted steel, trestle model, painted steel or aluminum base



EPD Program: International EPD System (www.environdec.com) Programme operator: EPD International AB Reference GPI: General Programme Instructions IES v.3.01 Reference PCR: PCR 2009:02 v3.0 "Seats" CPC Code: 3811 Publication date: 2019-01-18 Valid until: 2021-12-13 Revision date: 2020-07-22 Registration number: S-P-01494









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THE COMPANY AND THE PRODUCT

Arper is working on the assessment of the environmental impact of some of its products, to encourage the research aimed at both the improvement of its technical and environmental performances and to realize its commitment to the respect of the environment. Arper has already obtained an EPD certification for several of its products and aims at obtaining it for all the most representative models of its production.

ARPER

Arper manufactures chairs, tables and furnishing accessories. Arper's approach is relationship-oriented, and it translates into a design aimed at aesthetics and usability; from a global, innovative and personalized perspective; in the valorization of local contexts within the internationalization strategies; in organizational policies always based on transparency and the preservation of a solid and coherent brand identity.

Arper values the importance of environmental sustainability and it is characterized by an increasing commitment in this area: in 2006 it adopted the ISO 14001 environmental management system, in 2007 it introduced the use of the LCA tool, obtaining several product certifications that highlight the different aspects of the achieved results. Through LCA Arper obtained the EPD (Environmental Product Declaration), an ecolabel that requires the implementation of an LCA study and compliance with a set of pre-established requirements, defined by product category (Product Category Rules).

PRODUCT DESCRIPTION

Suitable for both indoor or outdoor spaces, Catifa 46 is available in a wide range of materials, colors and finishes of the shell and trunk. The shell is made of curved plywood, one or two colors polypropylene, with either soft, hard leather or fabric covering and various upholstered finishes. The frame is available in chromed steel, satin stainless steel, aluminum, powder-coated aluminum, wood and it is available in different versions: four legs, sled and trestle.

This declaration describes Catifa 46 with propylene shell and a 4-leg or trestle structure. The 4-leg frame is available with a painted or chromed steel finish, the one with trestle structures one comes with a painted or aluminum finish.

This EPD summarizes the indicators related to the environmental impact of Catifa 46 with a white body, which can also be considered representative for versions featuring a body in different colors (black, sepia, anthracite, ivory, yellow, red, pink, petrol green, green). In fact, it has been ascertained that the differences between the masters account for less than 10% on the overall impact of Catifa, as contemplated by the PCR adopted.

Figure 1 and Figure 2 show the exploded views of the Catifa 46 chair with the 4 legs and trestle base, while Table 1 and Table 2 summarize the materials of the chairs and of the packaging. Either the single chair can be individually packed, or 4 pieces together.





Figure 1 Exploded view of Catifa 46 chair with 4-legs base. PP shell; 2) 4-Legs base; 3) Trays; 4) "Clip It Easy"; 5) Hole cover; 6) Leg cap.

		Catifa 46 4-legs	base. chromed	Catifa 46 4-legs base. painted		
	Materials	kg	%	kg	%	
	Steel with surface treatment	2.388	50%	2.429	50%	
	PP	1.564	33%	1.564	32%	
Catifa 46	PP + talc	0.840	18%	0.840	17%	
	PE	0.004	0%	0.004	0%	
	TPU	0.003	0%	0.003	0%	
	Total	4.799	100%	4.840	100%	
	Cardboard	2.440	94%	2.440	95%	
	PE	0.090	3%	0.069	3%	
Packaging x 1	Paper	0.030	1%	0.030	1%	
	Galvanized steel	0.024	1%	0.024	1%	
	Total	2.583	100%	2.562	100%	
	Cardboard	3.627	90%	3.627	92%	
	PE	0.345	9%	0.261	7%	
Packaging x 4	Paper	0.032	1%	0.032	1%	
	Galvanized steel	0.024	1%	0.024	1%	
	Total	4.027	100%	3.943	100%	

Table 1: Materials in Catifa 46, 4-legs base



Figure 2 Exploded view of Catifa 46 chair with trestle base.

1) PP shell; 2-7) Under-shell plate; 8) Seeger; 9) Leg pin; 10) Conical adapter; 11) 4-ways base; 12-13) Screw, Washer; 14) Hole cover; 15) Leg cap expander; 16-19) Leg cap.

		Catifa 46 tre	Catifa 46 trestle, aluminum		estle, painted
	Materiali	kg	%	kg	%
	Steel	2.761	36%	2.765	36%
	Aluminum	2.400	32%	2.400	32%
	PP	1.572	21%	1.584	21%
Catifa 46	PP + 5 % Talc	0.840	11%	0.840	11%
	GEB015	0.029	0%	0.029	0%
	PE	0.010	0%	-	-
	Total	7.612	100%	7.617	100%
	Cardboard	3.157	88%	3.157	96%
	PE	0.383	11%	0.083	3%
Packaging x 1	Paper	0.032	1%	0.032	1%
	Steel	0.023	1%	0.023	1%
	Total	3.594	100%	3.294	100%
	Cardboard	4.511	74%	4.511	92%
	PE	1.517	25%	0.317	6%
Packaging x 4	Paper	0.032	1%	0.032	1%
	Steel	0.023	0%	0.023	0%
	Total	6.082	100%	4.882	100%

Table 2: Materials in the Catifa 46 chairs with trestle base.



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ENVIRONMENTAL IMPACT DECLARATION

DECLARED UNIT

The declared unit considered is 1 seat with a duration of 15 years.

SYSTEM BOUNDARIES

The system boundaries include the production of raw materials, the production of components and packaging materials, assembly, transport of raw materials and components, storage, distribution, use phase and end of life packaging and product.

Specifically, upstream processes include raw materials, their transport, the production of the chair components, the assembly of the structure of the legs and of the body and the packaging of the body and of the structure.

Core processes include: transport to the storage warehouse and consumption of electricity and water for storage. The assembly of the product and its production are not included because Arper does not manufacture or assemble its products internally.

The downstream processes include the distribution of the packaged product, the use phase and the end of life of the packaging and of the product.



Figure 1: System Boundaries of the LCA of Catifa 46 chair

TIME BOUNDARIES

Primary data come from Arper and are referred to the year 2019. Secondary data come from the Ecoinvent v 3.5 database, allocation and cut-off by classification, published in 2019.

TERRITORIAL BOUNDARIES

Components and packaging materials are produced in Italy, with the exception of the 4-ways base of the trestle, which is produced in Vietnam. The product is marketed both in Italy and abroad. The distribution and end-of-life scenario consider the sales of the reference year.



BOUNDARIES IN THE LIFE CYCLE

The construction of the company's buildings and infrastructure, the production of work equipment, other capital assets and personnel activities are not included in the LCA. For processes comprising the infrastructure, such as the processes deriving from the ecoinvent database, the infrastructure has not been omitted.

ALLOCATION RULES

Raw materials and production processes are included for virgin resources. No allocation is made for materials subject to recycling. The recycling process is included for input of recycled resources. Outputs subject to recycling are regarded as inputs to the next life cycle. For the energy and water consumptions of the storage warehouse volume allocation has been applied.



DATA QUALITY

This LCA study is based on primary data for the fundamental aspects of the study, such as the weight of the packaging components and materials. Primary data were collected from Arper's suppliers. For secondary data, the ecoinvent v3.5 database was used. Some ecoinvent v3.5 processes, such as powder coating, welding, extrusion of steel bars and injection molding of plastic parts, have been adapted to the Italian situation (or Vietnamese in the case of the spokes of the trestle base) changing the energy mix in order to make them more representative of the system studied.

The LCA calculation was performed using the SimaPro 9 software.

The use of proxy data does not exceed the limit of 10% of the overall impact of the main impact categories, as contemplated by the reference PCRs. All the material inputs of the production process have been considered.

For data collection and LCA calculations, the methodology described in the manual for data collection and the EPD processing process was used.

For the main components of the chair, primary data about consumption of production processes were obtained from the supplier. The components for which primary data have been made available are: the polypropylene shell; for the 4 leg version: the legs, the trays, the clips, the feet and the stacking caps, data on chromium-plating and painting processes; for the trestle version, data about the clips.

The process related to the Italian national mix available in the ecoinvent database "Electricity, medium voltage {IT} | market for | Cut-off, S". The Vietnamese energy mix was used for the production of the trestle 4-ways base. "Electricity, medium voltage {VN} | market for electricity, medium voltage | Cut-off, S".

For the packaging methods of Catifa 46, the information from the sales data in the year 2019 was used: 88.8% of the Catifa 46 4 legs and 80.1% of the Catifa 46 trestle are packed in a 4-piece box packaging.

For the product storage primary data were used, provided by the company responsible for the storage of shells and packed structures.

In the distribution phase, sales data were used, considering a road transport (ecoinvent database process: Transport, freight, lorry > 32 metric ton, EURO5 {RER}) and the distance between Arper's headquarters and the capital city of the exporting country. In the case of transport by ship, land transport (truck > 32 t EURO 5) is assumed to cover the distance from the port to the nearest Arper's facility and then transport by ship to the main port of the assessed foreign country.

In addition, a local transport of 300 km by road (truck 16-32 t EURO 5) is evaluated.





In the use phase, a consumption of 0.1 l of hot water and 0.8 g of chair soap is assumed. For soap, a solution with 5% Alkylbenzene sulfonate is considered. To heat the water, a consumption of 5.58 MJ of thermal energy is assumed.

For the start of the product and packaging at the end of its life, a road transport (truck 16-32 t EURO 5) for 100 km is assumed. For the end-of-life scenario, average national data were used for the countries in which the product is sold.



ENVIRONMENTAL IMPACT INDICATORS

The following tables show the environmental impact indicators for the life cycle of 1 Catifa 46 chair with 4-leg base, chrome-plated and painted versions and trestle, aluminum and painted versions.

Environmental indicators consist of 10 impact categories (global warming total/fossil/biogenic/land use, acidification, photochemical smog, eutrophication, abiotic depletion, abiotic depletion for fossil fuels and water scarcity), material and energy resources (renewable and non renewable), human toxicity, ecotoxicity and land use, consumption of water and waste. The indicators are divided into the contribution of the upstream, core and downstream phases.

TABLE 3: CATIFA 46, 4 LEGS, CHROMED FINISH, ENVIRONMENTAL INDICATORS								
Impact category	Units	Total	Upstream	Core	Downstream			
Global warming (GWP100a)_total	kg CO ₂ eq	25.0	20.5	0.1	4.4			
Global warming (GWP100a)_fossil	kg CO_2 eq	24.4	20.2	0.1	4.1			
Global warming (GWP100a)_ biogenic	kg CO ₂ eq	0.574	0.301	0.003	0.270			
Global warming (GWP100a)_land use	kg CO ₂ eq	0.029	0.029	0.000	0.000			
Acidification Potential	${\sf Kg}\;{\sf SO}_2$ eq	0.107	0.098	0.000	0.008			
Eutrophication potential	kg PO_4^{3-}	0.044	0.040	0.000	0.003			
Photochemical ozone formation, HH	kg NMVOC eq	0.081	0.073	0.000	0.008			
Abiotic depletion	Kg Sb eq	0.000	0.000	0.000	0.000			
Abiotic depletion (fossil fuels)	MJ	357	331	1	24			
Water scarcity	m³ eq	4086	4017	16	53			
Renewable resources, energy	MJ	39.7	38.6	0.1	1.0			
Renewable resources, materials	MJ	-	-	-	-			
Renewable resources, total	MJ	39.7	38.6	0.1	1.0			
Non renewable resources, energy	MJ	0.047	0.046	0.000	0.000			
Non renewable resources, materials	MJ	426	397	1	28			
Non renewable resources, total	MJ	426	397	1	28			
Water use*	m ³	127	121	0	5			
Hazardous waste	kg	1.01	0.05	0.00	0.96			
Non hazardous waste	kg	8.53	3.94	0.04	4.55			
Radioactive waste	kg	-	-	-	-			
Human toxicity, cancer	cases	0.000	0.000	0.000	0.000			
Human toxicity, non-cancer	cases	0.000	0.000	0.000	0.000			
Freshwater ecotoxicity	PAF.m ³ .day	602764	152321	153	450291			
Land use	species.yr	0.000	0.000	0.000	0.000			

Table 3: Results of the characterization of the Catifa 46 chair, 4 legs, chromed finish.

* the total amount of water includes all direct and indirect consumptions of softwater in the system studied. Cooling water is omitted in this calculation.



TABLE 4: CA MATER	TIFA 46, 4 LEGS, CHROMED FINISH, IAL AND ENERGY RESOURCES	Unit	Total	Upstream	Core	Downstream
	Total	MJ	426	397	1	28
	Oil, crude	MJ	171	153	1	17
N	Gas, natural/m3	MJ	126	118	0	8
Non-renewable	Coal, hard	MJ	77	75	0	1
resources, malendis	Uranium	MJ	42	40	0	2
	Coal, brown	MJ	9	9	0	0
	Other	MJ	2	2	0	0
Non-renewable	Total	MJ	0.047	0.046	0.000	0.000
resources, energy	Energy, gross calorific value, in biomass	MJ	0.047	0.046	0.000	0.000
Renewable resources, materials	Total	MJ	-	-	-	-
	Total	MJ	39.7	38.6	0.1	1.0
Renewable	Energy, gross calorific value, in biomass	MJ	19.4	18.5	0.1	0.8
resources, energy	Energy, potential, hydropower	MJ	14.9	14.7	0.0	0.1
	Energy, kinetic	MJ	3.6	3.6	0.0	0.1
	Other	MJ	1.8	1.8	0.0	0.0

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Table 4: Inventory of the material and energetic resources of the Catifa 46 4 legs, chromed.

TABLE 5: CATIFA 46, 4 LEGS, PAINTED, ENVIRONMENTAL INDICATORS								
Impact category	Units	Total	Upstream	Core	Downstream			
Global warming (GWP100a)_total	kg CO ₂ eq	28.2	23.7	0.1	4.4			
Global warming (GWP100a)_fossil	kg CO ₂ eq	27.6	23.4	0.1	4.2			
Global warming (GWP100a)_ biogenic	kg CO ₂ eq	0.565	0.292	0.003	0.270			
Global warming (GWP100a)_land use	kg CO ₂ eq	0.040	0.040	0.000	0.000			
Acidification Potential	Kg SO ₂ eq	0.148	0.140	0.000	0.008			
Eutrophication potential	kg PO ₄ ³⁻	0.049	0.046	0.000	0.003			
Photochemical ozone formation, HH	kg NMVOC eq	0.092	0.084	0.000	0.008			
Abiotic depletion	Kg Sb eq	0.000	0.000	0.000	0.000			
Abiotic depletion (fossil fuels)	MJ	402	377	1	24			
Water scarcity	m³ eq	4538	4468	16	54			
Renewable resources, energy	MJ	42.3	41.2	0.1	1.0			
Renewable resources, materials	MJ	-	-	-	-			
Renewable resources, total	MJ	42.3	41.2	0.1	1.0			
Non renewable resources, energy	MJ	0.082	0.082	0.000	0.001			
Non renewable resources, materials	MJ	480	450	1	28			
Non renewable resources, total	MJ	480	450	1	28			
Water use*	m ³	140	134	0	5			
Hazardous waste	kg	1.03	0.06	0.00	0.98			
Non hazardous waste	kg	8.90	4.26	0.04	4.60			
Radioactive waste	kg	-	-	-	-			
Human toxicity, cancer	cases	0.000	0.000	0.000	0.000			
Human toxicity, non-cancer	cases	0.000	0.000	0.000	0.000			
Freshwater ecotoxicity	PAF.m ³ .day	605812	147787	154	457871			
Land use	species.yr	0.000	0.000	0.000	0.000			

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Table 5: Results of the characterization of the Catifa 46 4 legs, painted.

* The total amount of water includes all direct and indirect consumptions of softwater in the system studied. Cooling water is omitted in this calculation.



TABLE 6: CATIFA	A 46, 4 LEGS, PAINTED, MATERIAL AND ENERGY RESOURCES	Unit	Total	Upstream	Core	Downstream
	Total	MJ	480	450	1	28
	Gas, natural/m3	MJ	178	161	1	17
N. 11	Oil, crude	MJ	156	148	0	8
Non-renewable	Coal, hard	MJ	87	86	0	1
resources, materials	Uranium	MJ	46	44	0	2
	Coal, brown	MJ	11	11	0	0
	Other	MJ	2	2	0	0
Non-renewable	Total	MJ	0.082	0.082	0.000	0.001
resources, energy	Energy, gross calorific value, in biomass	MJ	0.082	0.082	0.000	0.001
Renewable resources, materials	Total	MJ	-	-	-	-
	Total	MJ	42.3	41.2	0.1	1.0
Renewable						
Kenewable	Energy, gross caloritic value, in biomass	MJ	20.9	20.1	0.1	0.8
Renewable resources, energy	Energy, gross calorific value, in biomass Energy, potential, hydropower	MJ MJ	20.9 15.6	20.1 15.4	0.1 0.0	0.8 0.2
Kenewable resources, energy	Energy, gross calorific value, in biomass Energy, potential, hydropower Energy, kinetic	MJ MJ MJ	20.9 15.6 3.9	20.1 15.4 3.8	0.1 0.0 0.0	0.8 0.2 0.1

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Table 6: Inventory material and energetic resources of a Catifa 46 4-legs, painted.

TABLE 7: CATIFA 46, TRESTLE, ALUMINIUM, ENVIRONMENTAL INDICATORS								
Impact category	Units	Total	Upstream	Core	Downstream			
Global warming (GWP100a)_total	kg CO ₂ eq	43.2	38.3	0.1	4.8			
Global warming (GWP100a)_fossil	kg CO ₂ eq	42.6	38.1	0.1	4.4			
Global warming (GWP100a)_ biogenic	kg CO ₂ eq	0.465	0.098	0.003	0.364			
Global warming (GWP100a)_land use	kg CO ₂ eq	0.075	0.074	0.000	0.001			
Acidification Potential	Kg SO ₂ eq	0.226	0.211	0.001	0.015			
Eutrophication potential	kg PO4 ³⁻	0.079	0.071	0.000	0.008			
Photochemical ozone formation, HH	kg NMVOC eq	0.149	0.136	0.000	0.013			
Abiotic depletion	Kg Sb eq	0.001	0.001	0.000	0.000			
Abiotic depletion (fossil fuels)	MJ	552	519	2	31			
Water scarcity	m³ eq	8820	8726	20	75			
Renewable resources, energy	MJ	71.9	70.5	0.2	1.2			
Renewable resources, materials	MJ	-	-	-	-			
Renewable resources, total	MJ	71.9	70.5	0.2	1.2			
Non renewable resources, energy	MJ	0.051	0.050	0.000	0.001			
Non renewable resources, materials	MJ	650	612	2	36			
Non renewable resources, total	MJ	650	612	2	36			
Water use*	m ³	277	270	0	7			
Hazardous waste	kg	1.60	0.31	0.00	1.28			
Non hazardous waste	kg	13.5	6.8	0.1	6.6			
Radioactive waste	kg	-	-	-	-			
Human toxicity, cancer	cases	0.000	0.000	0.000	0.000			
Human toxicity, non-cancer	cases	0.000	0.000	0.000	0.000			
Freshwater ecotoxicity	PAF.m ³ .day	4792723	1011063	185	3781475			
Land use	species.yr	0.000	0.000	0.000	0.000			

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Table 7: Results of the characterization of Catifa 46, trestle, aluminum.

* The total amount of water includes all direct and indirect consumptions of softwater in the system studied. Cooling water is omitted in this calculation.

TABLE 8: CATIFA	46, TRESTLE, ALUMINIUM, MATERIAL AND ENERGY RESOURCES	Unit	Total	Upstream	Core	Downstream
	Total	MJ	650	612	2	36
	Oil, crude	MJ	217	193	1	23
	Gas, natural/m3	MJ	187	179	0	8
Non-renewable	Coal, hard	MJ	167	165	0	2
resources, malendis	Uranium	MJ	55	53	0	3
	Coal, brown	MJ	19	18	0	0
	Other	MJ	3	3	0	0
Non-renewable	Total	MJ	0.051	0.050	0.000	0.001
resources, energy	Energy, gross calorific value, in biomass	MJ	0.051	0.050	0.000	0.001
Renewable resources, materials	Total	MJ	-	-	-	-
	Total	MJ	71.9	70.5	0.2	1.2
Renewable	Energy, gross calorific value, in biomass	MJ	40.2	39.2	0.1	0.9
resources, energy	Energy, potential, hydropower	MJ	25.3	25.1	0.0	0.2
	Energy, kinetic	MJ	4.3	4.2	0.0	0.1
	Other	MJ	2.1	2.0	0.0	0.0

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Table 8: Inventory of material and energetic resources of a Catifa 46 trestle, aluminum.

TABLE 9: CATIFA 46, TRESTLE, PAINTED, ENVIRONMENTAL INDICATORS								
Impact category	Units	Total	Upstream	Core	Downstream			
Global warming (GWP100a)_total	kg CO ₂ eq	45.8	40.6	0.1	5.1			
Global warming (GWP100a)_fossil	kg CO ₂ eq	45.2	40.4	0.1	4.7			
Global warming (GWP100a)_ biogenic	kg CO ₂ eq	0.459	0.092	0.003	0.364			
Global warming (GWP100a)_land use	kg CO ₂ eq	0.079	0.079	0.000	0.001			
Acidification Potential	$Kg SO_2 eq$	0.255	0.239	0.001	0.016			
Eutrophication potential	kg PO ₄ ³⁻	0.082	0.073	0.000	0.008			
Photochemical ozone formation, HH	kg NMVOC eq	0.157	0.143	0.000	0.014			
Abiotic depletion	Kg Sb eq	0.001	0.001	0.000	0.000			
Abiotic depletion (fossil fuels)	MJ	597	563	2	32			
Water scarcity	m³ eq	8978	8882	20	77			
Renewable resources, energy	MJ	74.5	73.1	0.2	1.2			
Renewable resources, materials	MJ	-	-	-	-			
Renewable resources, total	MJ	74.5	73.1	0.2	1.2			
Non renewable resources, energy	MJ	0.070	0.069	0.000	0.001			
Non renewable resources, materials	MJ	704	665	2	37			
Non renewable resources, total	MJ	704	665	2	37			
Water use*	m ³	283	275	0	7			
Hazardous waste	kg	1.61	0.31	0.00	1.29			
Non hazardous waste	kg	13.9	7.0	0.1	6.9			
Radioactive waste	kg	-	-	-	-			
Human toxicity, cancer	cases	0.000	0.000	0.000	0.000			
Human toxicity, non-cancer	cases	0.000	0.000	0.000	0.000			
Freshwater ecotoxicity	PAF.m ³ .day	4823117	1010482	187	3812448			
Land use	species.yr	0.000	0.000	0.000	0.000			

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Table 9: Results of the characterization of Catifa 46 trestle, painted.

* The total amount of water includes all direct and indirect consumptions of softwater in the system studied. Cooling water is omitted in this calculation.



TABLE 1 C MATER): CATIFA 46, TRESTLE, PAINTED , IAL AND ENERGY RESOURCES	Unit	Total	Upstream	Core	Downstream
	Total	MJ	704	665	2	37
	Gas, natural/m3	MJ	233	208	1	24
	Oil, crude	MJ	216	207	0	8
Non-renewable	Coal, hard	MJ	171	169	0	2
resources, materials	Uranium	MJ	61	58	0	3
	Coal, brown	MJ	20	19	0	1
	Other	MJ	4	3	0	0
Non-renewable	Total	MJ	0.070	0.069	0.000	0.001
resources, energy	Energy, gross calorific value, in biomass	MJ	0.070	0.069	0.000	0.001
Renewable resources, materials	Total	MJ	-	-	-	-
	Total	MJ	74.5	73.1	0.2	1.2
Renewable	Energy, gross calorific value, in biomass	MJ	41.5	40.4	0.1	1.0
resources, energy	Energy, potential, hydropower	MJ	26.3	26.0	0.0	0.2
	Energy, kinetic	MJ	4.6	4.5	0.0	0.1
	Other	MJ	2.2	2.1	0.0	0.0

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Table 10: Inventory of material and energetic resources of a Catifa 46 4 legs, painted.

ADDITIONAL ENVIRONMENTAL INFORMATION

Since 2008 "Catifa 46" is GREENGUARD and GREENGUARD GOLD certified, certificate number: 5715-410 and 5715-420.

Catifa 46 with painted base (4-legs and trestle) or aluminum base (trestle) is GECA certified, license number: ARP-2017, Licensee since: 02 July 2009, License expiry date: 07 February 2020.







INFORMATION ABOUT THE COMPANY AND ON THE CERTIFICATION

ARPER – CONTACT INFORMATION

The Life Cycle Assessment Study (LCA) and this EPD were conducted by Arper in collaboration with Leo Breedveld, 2B Srl. (<u>www.to-be.it</u>). The Life Cycle Assessment Study (LCA) and this EPD were conducted by Arper in partnership with Leo Breeveld, 2B Srl (<u>www.to-be.it</u>). The company references are:

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CERTIFICATION AND CERTIFICATION BODY INFORMATION

Registration N°: S-P-01494

Publication date: 2019-01-18

Document valid until: 2021-12-13

Revision date: 2020-07-22

Reference year: 2019

Geographic area validity: Global

PCR 2009:02, version 3.0 (UN CPC 3811, Seats), PCR review conducted by Leo Breedveld, available on the website of the International EPD Consortium (IEC): <u>www.environdec.com</u>

Quality audit for the declaration and the information in compliance with ISO 14025:2006

■ EPD process certification □ EPD verification

Third party verifier: CSQA Certificazioni Srl, Via San Gaetano n. 74, 36016 Thiene (VI)

Phone: 0446-313011, Fax: 0446313070, <u>www.csqa.it</u>.

Accredited by: Accredia (004H)

Procedure for follow-up of data during EPD validity involves third party verifier:

■ Yes □ No



OTHER INFORMATION

This Environmental Product Declaration is developed under the EPD® International System. This document is available on the website of the Swedish Environmental Management Council (www.environdec.com).

EPDs belonging to the same product category may not be comparable. Comparisons between EPDs shall be done carefully, special attention shall be given to system boundaries and data sources.

DIFFERENCES VERSUS PREVIUS VERSIONS

In comparison to the previous version of this EPD, the reference PCR Seats 2009:02 has evolved from version 2.0 to version 3.0, the latter based on the newest version of the General Programme Instruction, version 3.1. Although the product composition is unaltered, new PCR and GPI require several updates like the addition of the reference Service Life (RSL), the update of the environmental indicators and the update of the additional environmental indicators. Furthermore, the company impacts (energy consumption and waste treatment), distribution statistics, end-of-life scenarios based on sales statistics have been updated to the new reference year (2019), resulting in minor changes in the environmental indicators (< 10%).



EPD°

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