ACRISYL

SISTEMA ACRIL-SILOSSANICO

Environmental Product Declaration

Linea Acrisyl

San Marco Group SpA

Acrisyl Pittura Liscia	***Acrisyl KP 1***	***Acrisyl Intonachino***
Acrisyl Pittura Riempitiva	***Acrisyl KP 1,2***	***Acrisyl Intonachino grana finissima***
Acrisyl Fondo Finitura	***Acrisyl KP 1,5***	***Acrisyl KP 1,8***

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1. The company and the product

San Marco Group SpA is working on the quantification of the environmental impacts of its products in order to improve their technical and environmental performance.

This EPD describes the environmental performance of Acrisyl in order to promote its application, especially in those building sites that request compliance with Minimum Environmental Requirements.

1.1 San Marco Group SpA

San Marco Group, with its 8 manufacturing facilities around the world and 7 brands, has become a leader in the paint and coatings sector for professional construction in Italy.

San Marco Group has a capillary distribution network throughout Italy, leading to highly specialized retail stores in Professional Application Centres that can offer high quality products and services to colour professionals.

Outside Italy, the San Marco Group is present in more than 40 countries around the world, through specialized distributors. Thanks to a company policy that focuses on greater internationalization and continuous and significant investments in both production and Research & Development, the company's commercial and manufacturing structure is constantly expanding [1].

1.1.1 Mission

- To become one of the top industrial companies in Italy in the paint and coatings sector for professional construction in terms of market share, product quality and territorial coverage.
- To strengthen loyalty with Italian and foreign customers by offering a range of qualified services in terms of content and reliability, in order to guarantee the support needed for the selling of its products through the best partners operating in this segment.
- To be an important reference in the market in terms of business ethics and responsibility for collaborators, customers, suppliers and potential investors.
- To promote the culture of restoration construction in Europe and the value of "Made in Italy" and "Made in Venice" brands throughout the world.

1.1.2 Environmental policy

Protecting the environment and respecting the workplace for operators are important aspects of San Marco Group's company policy. This is why San Marco Group is continuously trying to improve the quality of its products and its production cycles in order to reduce the overall environmental impact.

San Marco Group was one of the first companies that offered water-based solutions for enamels and stains back in 1982 with the Unimarc Line and since then the pursuit has continued towards eliminating from its formulations raw materials considered hazardous to humans and the environment.

The Greenspirit line was developed in 2009: a selection of high-tech natural products for bioconstruction with low environmental impact.

In 2010 San Marco Group has begun using the LCA methodology to understand the environmental performance of its products and to analyze their strengths and weaknesses. The holistic view of LCA convinced San Marco Group to acquire internally skills on the methodology and its application, with the ambitious goal of carrying out the LCA analysis of all the main products.

The LCA studies conducted enable San Marco Group to get a picture of its products from an environmental point of view, and to take actions of eco-design, both through actions for the improvement of its processes, and through the involvement of the supply chain in a virtuous circle. Moreover, the application of LCA in 2011 has allowed San Marco to achieve the certification EPD, or Environmental Product Declaration, for three products in the International EPD System.

In 2015 the thermal insulation system Marcotherm was certified EPD.

After using the LCA methodology for 4 years and having studied more than 40 products, San Marco Group has created its own LCA calculation system, reviewed by the certification body CSQA in March 2014 and July 2015.

In 2018 the LCA calculation methodology became the San Marco EPD process, certified within the International EPD system. This certification enables San Marco to create EPD autonomously. The EPD process is verified by a third party verifier and, internally, once a year. Each EPD is verified only internally.

1.2 Product description

The object of this EPD is the acrilyc-siloxane system Acrisyl, in different variations:

- Acrisyl Liscio
- Acrisyl Pittura Riempitiva
- Acrisyl Fondo Finitura
- Acrisyl KP 1
- Acrisyl KP 1,2
- Acrisyl KP 1,5
- Acrisyl Intonachino
- Acrisyl Intonachino grana finissima
- Acrisyl KP 1,8.

The analysis was carried out by applying the PCR 2019: 14 v1.11 "Construction products" [2] and complies with the EN 15804: 2012 + A2: 2019 [3] standard.

Acrisyl Decora and Acrisyl Grip are excluded from this assessment because of their specific applications. As a result, their product features are very different from other Acrisyl products.

The product is available in different options: white or colored-base medium, deep o transparent. The colored-base and the white product are different because of the white pigment concentration. The different white pigment concentration gives the possibility to have different intensity shade. Only some Acrisyl products are available in all the colored-base options.

In this study only the package of approximately 15 l are assessed, that are usually applied by professional users.

The analysed products are described in the table below.

Item	White	Medium	Deep	Trasp.
Acrisyl Liscio	15 l	15 l	14 l	14 l
Acrisyl Pittura Riempitiva	15 l	15 l	14 l	14 l
Acrisyl Fondo Finitura	15 l			14 l
Acrisyl KP 1	25 kg			24 kg
Acrisyl KP 1,2	25 kg			24 kg
Acrisyl KP 1,5	25 kg			24 kg
Acrisyl Intonachino	25 kg			24 kg
Acrisyl Intonachino grana finissima	25 kg			24 kg
Acrisyl KP 1,8	25 kg			24 kg

Table1 – Analysed products.

1.3 Composition

1.3.1 Acrisyl Pittura Liscia

		White 15 l		Medium 15 l		Deep 14 l		Transp 14 l	
		Kg	%	Kg	%	Kg	%	Kg	%
Product	Water	4,115	16,62	2,783	11,24	4,151	17,96	3,856	16,78
	Additives	1,486	6,00	1,044	4,22	1,424	6,16	1,365	5,94
	Pigments and fillers	10,673	43,11	14,026	56,65	9,908	42,86	10,049	43,74
	Dispersions and resins	6,225	25,14	4,647	18,77	5,377	23,26	5,449	23,72
	Unpackaged product	22,500	90,88	22,500	90,88	20,860	90,24	20,720	90,18
1° packaging	Steel	1,212	4,90	1,212	4,90	1,212	5,24	1,212	5,27
	Paper	0,001	0,00	0,001	0,00	0,001	0,00	0,001	0,00
	Polyethylene	0,003	0,01	0,003	0,01	0,003	0,01	0,003	0,01
	Polypropylene - Vergin	0,000	0,00	0,000	0,00	0,000	0,00	0,000	0,00
	Polypropylene - Recycled	0,000	0,00	0,000	0,00	0,000	0,00	0,000	0,00
	Primary packaging	1,216	4,91	1,216	4,91	1,216	5,26	1,216	5,29
3° packaging	Wood	1,023	4,13	1,023	4,13	1,023	4,43	1,023	4,45
	HDPE	0,018	0,07	0,018	0,07	0,018	0,08	0,018	0,08
	Tertiary packaging *(1 3° packaging for 22 pcs)*	1,041	4,20	1,041	4,20	1,041	4,50	1,041	4,53
	Total	24,757	100,00	24,757	100,00	23,117	100,00	22,977	100,00

Table 1: Composition of Acrisyl Pittura liscia

1.3.2 Acrisyl KP 1,2

		White 25 kg						Transp 24 kg	
		Kg	%	Kg	%	Kg	%	Kg	%
Product	Water	1,807	6,75					1,744	6,77
	Additives	0,742	2,77					0,772	3,00
	Pigments and fillers	17,997	67,23					17,883	69,40
	Dispersions and resins	4,454	16,64					3,601	13,97
	Unpackaged product	25,000	93,39					24,000	93,14
1° packaging	Steel	0,056	0,21					0,056	0,22
	Paper	0,001	0,00					0,001	0,00
	Polyethylene	0,003	0,01					0,003	0,01
	Polypropylene - Vergin	0,123	0,46					0,123	0,48
	Polypropylene - Recycled	0,545	2,04					0,545	2,11
	Primary packaging	0,728	2,72					0,728	2,83
3° packaging	Wood	1,023	3,82					1,023	3,97
	HDPE	0,018	0,07					0,018	0,07
	Tertiary packaging *(1 3° packaging for 22 pcs)*	1,041	3,89					1,041	4,04
	Total	26,769	100,00					25,769	100,00

Table 2: Composition of Acrisyl KP 1,2

1.3.3 Acrisyl KP 1,5

		White 25 kg						Transp 24 kg	
		Kg	%	Kg	%	Kg	%	Kg	%
Product	Water	1,664	6,22					1,683	6,53
	Additives	1,075	4,02					0,987	3,83
	Pigments and fillers	18,418	68,80					17,772	68,97
	Dispersions and resins	3,843	14,36					3,558	13,81
	Unpackaged product	25,000	93,39					24,000	93,14
1° packaging	Steel	0,056	0,21					0,056	0,22
	Paper	0,001	0,00					0,001	0,00
	Polyethylene	0,003	0,01					0,003	0,01
	Polypropylene - Vergin	0,123	0,46					0,123	0,48
	Polypropylene - Recycled	0,545	2,04					0,545	2,11
	Primary packaging	0,728	2,72					0,728	2,83
3° packaging	Wood	1,023	3,82					1,023	3,97
	HDPE	0,018	0,07					0,018	0,07
	Tertiary packaging *(1 3° packaging for 22 pcs)*	1,041	3,89					1,041	4,04
	Total	26,769	100,00					25,769	100,00

Table 3: Composition of Acrisyl KP 1,5

1.3.4 Acrisyl Intonachino

		White 25 kg						Transp 24 kg	
		Kg	%	Kg	%	Kg	%	Kg	%
Product	Water	1,591	5,94					1,520	5,90
	Additives	0,998	3,73					1,089	4,23
	Pigments and fillers	18,574	69,39					17,740	68,84
	Dispersions and resins	3,837	14,33					3,651	14,17
	Unpackaged product	25,000	93,39					24,000	93,14
1° packaging	Steel	0,056	0,21					0,056	0,22
	Paper	0,001	0,00					0,001	0,00
	Polyethylene	0,003	0,01					0,003	0,01
	Polypropylene - Vergin	0,123	0,46					0,123	0,48
	Polypropylene - Recycled	0,545	2,04					0,545	2,11
	Primary packaging	0,728	2,72					0,728	2,83
3° packaging	Wood	1,023	3,82					1,023	3,97
	HDPE	0,018	0,07					0,018	0,07
	Tertiary packaging *(1 3° packaging for 22 pcs)*	1,041	3,89					1,041	4,04
	Total	26,769	100,00					25,769	100,00

Table 4: Composition of Acrisyl Intonachino

1.3.5 Acrisyl KP 1,8

		White 25 kg						Transp 24 kg	
		Kg	%	Kg	%	Kg	%	Kg	%
Product	Water	1,669	6,23					1,865	7,24
	Additives	1,344	5,02					1,016	3,94
	Pigments and fillers	18,863	70,47					17,698	68,68
	Dispersions and resins	3,124	11,67					3,42	13,27
	Unpackaged product	25,000	93,39					24,000	93,14
1° packaging	Steel	0,056	0,21					0,056	0,22
	Paper	0,001	0,00					0,001	0,00
	Polyethylene	0,003	0,01					0,003	0,01
	Polypropylene - Vergin	0,123	0,46					0,123	0,48
	Polypropylene - Recycled	0,545	2,04					0,545	2,11
	Primary packaging	0,728	2,72					0,728	2,83
3° packaging	Wood	1,023	3,82					1,023	3,97
	HDPE	0,018	0,07					0,018	0,07
	Tertiary packaging *(1 3° packaging for 22 pcs)*	1,041	3,89					1,041	4,04
	Total	26,769	100,00					25,769	100,00

Table 5: Composition of Acrisyl KP 1,8

1.3.6 Acrisyl Intonachino Grana Finissima

		White 25 kg						Transp 24 kg	
		Kg	%	Kg	%	Kg	%	Kg	%
Product	Water	2,606	9,74					2,505	9,72
	Additives	1,075	4,02					1,043	4,05
	Pigments and fillers	17,489	65,33					16,783	65,13
	Dispersions and resins	3,829	14,30					3,668	14,23
	Unpackaged product	25,000	93,39					24,000	93,14
1° packaging	Steel	0,056	0,21					0,056	0,22
	Paper	0,001	0,00					0,001	0,00
	Polyethylene	0,003	0,01					0,003	0,01
	Polypropylene - Vergin	0,123	0,46					0,123	0,48
	Polypropylene - Recycled	0,545	2,04					0,545	2,11
	Primary packaging	0,728	2,72					0,728	2,83
3° packaging	Wood	1,023	3,82					1,023	3,97
	HDPE	0,018	0,07					0,018	0,07
	Tertiary packaging *(1 3° packaging for 22 pcs)*	1,041	3,89					1,041	4,04
	Total	26,769	100,00					25,769	100,00

Table 6: Composition of Acrisyl Intonachino grana finissima

1.3.7 Acrisyl KP 1

		White 25 kg						Transp 24 kg	
		Kg	%	Kg	%	Kg	%	Kg	%
Product	Water	1,947	7,27					1,405	5,45
	Additives	1,075	4,02					1,116	4,33
	Pigments and fillers	18,139	67,76					17,484	67,85
	Dispersions and resins	3,840	14,34					3,994	15,50
	Unpackaged product	25,000	93,39					24,000	93,14
1° packaging	Steel	0,056	0,21					0,056	0,22
	Paper	0,001	0,00					0,001	0,00
	Polyethylene	0,003	0,01					0,003	0,01
	Polypropylene - Vergin	0,123	0,46					0,123	0,48
	Polypropylene - Recycled	0,545	2,04					0,545	2,11
	Primary packaging	0,728	2,72					0,728	2,83
3° packaging	Wood	1,023	3,82					1,023	3,97
	HDPE	0,018	0,07					0,018	0,07
	Tertiary packaging *(1 3° packaging for 22 pcs)*	1,041	3,89					1,041	4,04
	Total	26,769	100,00					25,769	100,00

Table 7: Composition of Acrisyl KP 1

1.3.8 Acrisyl Pittura Riempitiva

		White 15 l		Medium 15 l		Deep 14 l		Transp 14 l	
		Kg	%	Kg	%	Kg	%	Kg	%
Product	Water	4,018	16,44	4,303	17,83	3,471	15,32	3,282	14,49
	Additives	1,252	5,12	1,192	4,94	1,133	5,00	1,288	5,69
	Pigments and fillers	11,651	47,68	11,337	46,97	10,038	44,31	10,488	46,29
	Dispersions and resins	5,579	22,83	5,368	22,24	6,078	26,83	5,663	25,00
	Unpackaged product	22,500	92,08	22,200	91,98	20,720	91,45	20,720	91,45
1° packaging	Steel	0,056	0,23	0,056	0,23	0,056	0,25	0,056	0,25
	Paper	0,001	0,00	0,001	0,00	0,001	0,00	0,001	0,00
	Polyethylene	0,003	0,01	0,003	0,01	0,003	0,01	0,003	0,01
	Polypropylene - Vergin	0,29	1,19	0,29	1,20	0,29	1,28	0,29	1,28
	Polypropylene - Recycled	0,545	2,23	0,545	2,26	0,545	2,41	0,545	2,41
	Primary packaging	0,895	3,66	0,895	3,71	0,895	3,95	0,895	3,95
3° packaging	Wood	1,023	4,19	1,023	4,24	1,023	4,52	1,023	4,52
	HDPE	0,018	0,07	0,018	0,07	0,018	0,08	0,018	0,08
	Tertiary packaging *(1 3° packaging for 22 pcs)*	1,041	4,26	1,041	4,31	1,041	4,59	1,041	4,59
	Total	24,436	100,00	24,136	100,00	22,656	100,00	22,656	100,00

Table 8: Composition of Acrisyl Pittura riempitiva

1.3.9 Acrisyl Fondo Finitura

		White 15 l						Transp 14 l	
		Kg	%	Kg	%	Kg	%	Kg	%
Product	Water	4,116	15,78					3,200	13,78
	Additives	1,289	4,94					1,133	4,88
	Pigments and fillers	14,33	54,93					12,086	52,06
	Dispersions and resins	4,415	16,92					4,861	20,94
	Unpackaged product	24,150	92,58					21,280	91,66
1° packaging	Steel	0,056	0,21					0,056	0,24
	Paper	0,001	0,00					0,001	0,00
	Polyethylene	0,003	0,01					0,003	0,01
	Polypropylene - Vergin	0,290	1,11					0,290	1,25
	Polypropylene - Recycled	0,545	2,09					0,545	2,35
	Primary packaging	0,895	3,43					0,895	3,86
3° packaging	Wood	1,023	3,92					1,023	4,41
	HDPE	0,018	0,07					0,018	0,08
	Tertiary packaging *(1 3° packaging for 22 pcs)*	1,041	3,99					1,041	4,48
	Total	26,086	100,00					23,216	100,00

Table 9: Composition of Acrisyl Fondo Finitura

1.4 Safety data sheet and hazardous substances

Safety data sheet phrases are reported in Table2, while Table3 shows the substances present in the products that are classified as being hazardous. The products do not contain SVHC (Substances of Very High Concern).

Code	Phrase
H412	Harmful to aquatic life with long-lasting effects
EUH208	Contains: • Mixture of 5-cloro-2-metil-2H-isotiazol-3-one [CE n° 247-500-7] e2-metil-2H-isotiazol-3-one [CE n° 220-239-6] (3:1)2-ottil-2H-isotiazol-3-one • 1,2-benzisotiazol-3(2H)-one. • 2-ottil-2H-isotiazol-3-one May produce an allergic reaction.
P101	If medical advice is needed, keep product container or label at hand.
P102	Keep out of reach of children.
P501	Dispose the contents/container in compliance with national regulation.

Table2 – Hazard and precautionary statements.

Quantity	*Name*	*Identity number*	*Classification*
>= 0.005% - < 0.05%	pyrithione zinc	CAS: 13463-41-7 EC: 236-671-3 REACH No.: 01-2119511196-46-XXXX	3.1/3/Oral Acute Tox. 3 H301 4.1/C1 Aquatic Chronic 1 H410 M=1. 3.3/1 Eye Dam. 1 H318 4.1/A1 Aquatic Acute 1 H400 M=10. 3.1/4/Inhal Acute Tox. 4 H332
>= 0.005% - < 0.05%	1,2-benzisotiazol-3(2H)-one	Numero Index: 613-088-00-6 CAS: 2634-33-5 EC: 220-120-9	3.1/2/Inhal Acute Tox. 2 H330 3.2/2 Skin Irrit. 2 H315 3.3/1 Eye Dam. 1 H318 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317 3.1/4/Oral Acute Tox. 4 H302 4.1/A1 Aquatic Acute 1 H400 M=1. 4.1/C2 Aquatic Chronic 2 H411 M=1.

Quantity	*Name*	*Identity number*	*Classification*
>= 0.005% - < 0.05%	terbutryn	CAS: 886-50-0 EC: 212-950-5	4.1/A1 Aquatic Acute 1 H400 M=100. 4.1/C1 Aquatic Chronic 1 H410 M=100. 3.1/4/Oral Acute Tox. 4 H302 3.4.2/1 Skin Sens. 1 H317
>= 0.005% - < 0.05%	2-ottil-2H-isotiazol-3-one	Numero Index: 613-112-00-5 CAS: 26530-20-1 EC: 247-761-7	3.1/2/Inhal Acute Tox. 2 H330 3.2/1B Skin Corr. 1B H314 3.3/1 Eye Dam. 1 H318 3.4.2/1A Skin Sens. 1A H317 4.1/A1 Aquatic Acute 1 H400 M=10. 4.1/C1 Aquatic Chronic 1 H410 M=1. 3.1/3/Dermal Acute Tox. 3 H311 3.1/4/Oral Acute Tox. 4 H302
>= 0.00015% - < 0.0015%	Mixture of 5-cloro-2-metil-2H-isotiazol-3-one [EC no. 247-500-7] e 2-metil-2H-isotiazol-3-one [EC no. 220-239-6] (3:1)	Numero Index: 613-167-00-5 CAS: 55965-84-9 EC: 611-341-5	3.2/1B Skin Corr. 1B H314 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317 4.1/A1 Aquatic Acute 1 H400 M=10. 4.1/C1 Aquatic Chronic 1 H410 M=1. 3.1/3/Oral Acute Tox. 3 H301 3.1/3/Dermal Acute Tox. 3 H311 3.1/3/Inhal Acute Tox. 3 H331

Table3 – Classified substances Reg. EU 1272/2008

2. Environmental performance declaration

2.1 Declared unit

The declared unit is 1 kg of paint that enables to paint a certain number of m^2.

The average paint consumptions per m^2 are reported in Table4.

Product	Average consumption (kg/m^2)
Acrisyl Liscio Bianco	0,27
Acrisyl Liscio Medium	0,27
Acrisyl Liscio Deep	0,27
Acrisyl Liscio Trasparente	0,27
Acrisyl KP 1,2 Trasparente	1,9
Acrisyl KP 1,2 Bianco	1,9
Acrisyl KP 1,5 Bianco	3
Acrisyl KP 1,5 Trasparente	3
Acrisyl Intonachino Bianco	1,9
Acrisyl Intonachino Trasparente	1,9
Acrisyl KP 1,8 Bianco	2,85
Acrisyl KP 1,8 Trasparente	2,85
Acrisyl Inton. Grana finissima Bianco	2,3
Acrisyl Inton. Grana finissima Trasparente	2,3
Acrisyl KP 1 Bianco	1,6
Acrisyl KP 1 Trasparente	1,6
Acrisyl Riempitivo Bianco	0,37
Acrisyl Riempitivo Medium	0,37
Acrisyl Riempitivo Deep	0,37
Acrisyl Riempitivo Trasparente	0,37
Acrisyl Fondo Finitura Bianco	0,54
Acrisyl Fondo Finitura Trasparente	0,51

Table4: Acrisyl paint average consumption per m^2 of surface.

2.2 System boundaries

The present EPD is a declaration “from cradle to gate with options” (PCR 2019:14 v1.11). The system boundaries include production of raw materials, their transport, Acrisyl manufacturing, distribution, application and end of life. For completeness, the product packaging and its disposal are included (Figure 1).

Use phase (B1-B7) and demolition (C1) are excluded because these phases are strongly characterized by the conditions in which the system is used. The modules B1, B2, B3, B4, B5, B6, B7 and C1 are not declared.

As shown in Figure 2, the upstream processes for San Marco manufacturing include: raw materials and their packaging, their transportation to suppliers and the production of packaging.

The following core processes are considered: transport to San Marco, production (through the use of a mechanical mixer for liquid products), internal transfers with electric vehicles, washing

operations, packaging with primary packaging materials, palletisation, product storage, production and disposal of scrap. Transport of materials from suppliers to San Marco, energy and water consumption and waste treatment are included in the production process.

Downstream processes include: distribution, application, and the product end of life.

No cut-off rules were applied.

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw materials	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	x	x	x	x	x	ND	ND	ND	ND	ND	ND	ND	ND	x	x	x	x
Geography	GLO	GLO	IT	IT	IT	-	-	-	-	-	-	-	-	IT	IT	IT	IT
Specific data used	>90%																
Variation – products	not relevant																
Variation - sites	not relevant																

Figure 1: Modules evaluated of the life cycle (ND: module Not Declared).

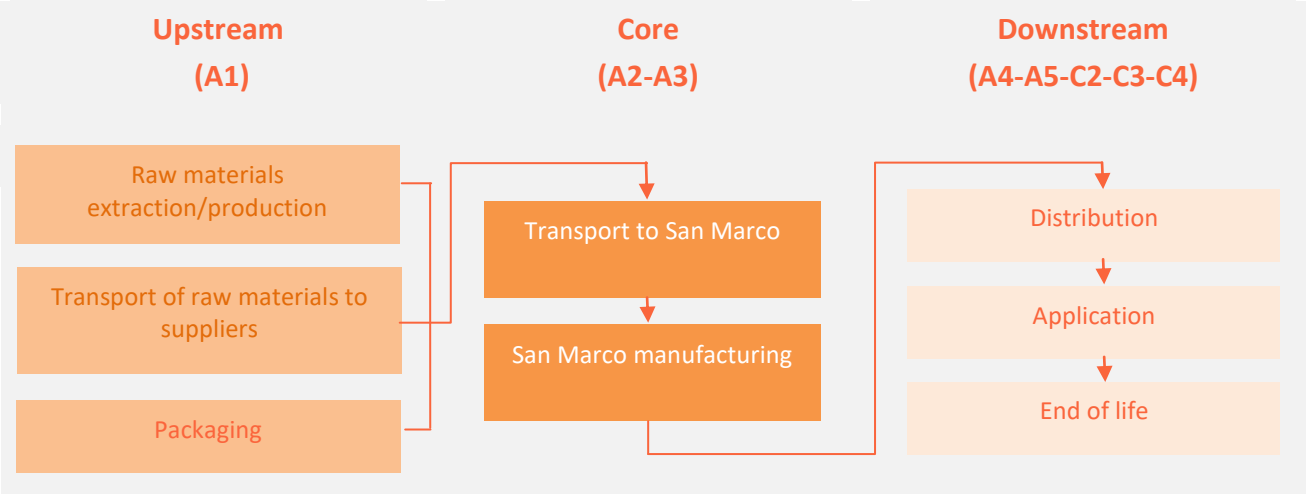

Figure 2: System boundaries of Acrisyl.

2.3 Time boundaries

Primary data come from San Marco and refer to the year 2020. Secondary data come from the database ecoinvent v3.7 [6] released in 2021, available in the SimaPro software v9.2 [7] used for to perform the analysis.

2.4 Geographic boundaries

The production site San Marco is located in the municipality of Marcon, in the province of Venice. Raw material supply occurs all over the world. Acrisyl products are sold in all the world and particularly in Italy. Distribution and end of life scenarios are based on real data concerning sales. The production, distribution, application and end-of life of Acrisyl paints refer to the national situation. The end of life of packaging materials refers to the 2020 national statistics [8].

2.5 Life cycle boundaries

In accordance with the options of the PCR 2019:14 v1.11 for “Construction products”, the following processes are excluded from the LCA: the construction of company buildings, the production of manufacturing equipment and other capital goods, personnel activities.

The contribution of infrastructure has not been excluded from the ecoinvent database processes that already contained it.

2.6 Boundaries to nature and other systems

Emissions to air, treatment of wastewater, transport and treatment of waste from the production process were included in the LCA. The biogenic emissions of CO_2 are evaluated and included in the life cycle impact assessment.

2.7 Allocation rules

As regards end-of-life allocation, the “cut-off” approach was adopted. Raw materials and manufacturing processes are included for virgin resources. No allocation is made for materials subject to recycling. The recycling process is included for the input of recycled resources. The outputs subject to recycling are considered inputs for the next life cycle.

For materials reused internally (like pellets) the input related to recovery processes and avoided impacts of new materials are modelled as part of the life cycle of the products.

Mass-based allocation has been applied to energy and water consumed in the production plants of San Marco in Marcon (VE) in 2020.

3. Data quality

Primary data have been used for the fundamental aspects of the study, such as energy and water consumption in production plants of San Marco or the product composition. For all processes for which primary or representative data were not available, the LCA database ecoinvent v3.7, cut-off by classification, was used. The processes selected from the ecoinvent database have been modified, if necessary, to make them more representative of the Italian situation, by selecting, where possible, the input processes with Italian processes. This was done for the production processes of raw materials that take place in Italy, for all the processes related to the production of Acrisyl paints and for the end-of-life processes of waste.

The use of proxy data is limited and their contribution does not exceed the limit of 10% of the considered impact categories.

All inputs of the productive process have been evaluated.

For data collection and LCA calculations, the methodology described in the manual “Processo di elaborazione delle EPD del San Marco Group S.P.A.” has been used.

Raw materials not available in the ecoinvent database have been modelled from the information contained in the respective safety and technical data sheets or by modifying existing ecoinvent processes of similar chemicals.

To define the plant consumption (A3) data concerning the consumption of electricity, water and waste production in 2020 have been used.

For San Marco plant electricity consumption a specific electricity mix has been modelled. The mix is composed by 97% Italian electricity mix and 3% photovoltaic panels installed by the company.

For the distribution stage (A4) sale data concerning 2020 have been used. The amount of kilometres and the means of transport have been evaluated as reported in the EPD process manual.

The application stage (A5) includes the water consumption due to the paint dilution, as reported in the technical data sheet, the application by hand, the application scrap end of life and the packaging material end of life.

It is assumed that 100% of the scrap is sent to landfill for disposal.

The material constituting the primary packaging and the plastic film of the tertiary packaging is disposed of according to the proportions obtained from the "Urban Waste Report - Edition 2020" [8]. It is assumed that the primary packaging cannot be recycled. The end of life of the tertiary packaging pallet takes into account the fact that most of the pallets used in the shipment return to the company and are reused. The remaining part, made up of the reintegrated pieces, is recycled. The end of life of pallets has been modelled with company data on pallets used for shipping and on pallets returned to the company and reused. Pallets that are nor reused are sent for recycling.

It is assumed that Acrisyl products are sent to landfill for disposal (C3-C4). Transport to disposal is assumed to be 50 km (C2).

Module D assesses the impact of the net flows of recovered materials (recycled or reused) from the life cycle stages A to C. Quantities of the recovered materials were obtained from the LCI of each product.

4. Environmental impact indicators

The following tables report the environmental impact indicators for the life cycle of 1 kg of Acrisyl Liscio (White, Medium, Deep, Transparent), Acrisyl KP 1,2 (White, Transparent), Acrisyl KP 1,5 (White, Transparent), Acrisyl Intonachino (White, Transparent), Acrisyl KP 1,8 (White, Transparent), Acrisyl Intonachino Grana Finissima (White, Transparent), Acrisyl KP 1 (White, Transparent), Acrisyl Riempitivo (White, Medium, Deep, Transparent) and Acrisyl Fondo Finitura (White, Transparent).

The environmental indicators included in the analysis are:

- 9 Core impact categories (Climate change, Ozone depletion, Photochemical ozone formation, Acidification, Eutrophication, Water use, Resource use - fossils, Resource use - minerals and metals),
- 6 Additional impact categories (Ionizing radiation, Particulate matter, Human toxicity, Ecotoxicity – freshwater, Land use),
- Environmental information about resource use,
- Environmental information about waste,
- Environmental information about output flows.

The indicators are subdivided into the contribution of life cycle stages:

- raw materials (A1),
- transport (A2),
- production (A3),
- distribution (A4),
- application (A5),
- waste transport (C2),
- waste processing and dismantling (C3 e C4),
- reuse, recycling and energy recovery (D).

C3 stage results amounts to zero because no waste is processed to recycling or reuse. Stage B1, B2, B3, B4, B5, B6, B7, C1 results are not reported in this EPD.

ACRISYL LISCIO BIANCO

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	2,31E+00	2,04E+00	8,92E-02	5,67E-02	6,27E-02	2,03E-03	8,17E-03	0	5,50E-02	1,28E+00
1.2	Climate change - Fossil	kg CO_2 eq	2,27E+00	2,00E+00	8,89E-02	5,41E-02	6,26E-02	1,72E-03	8,14E-03	0	5,49E-02	-1,90E-01
1.3	Climate change - Biogenic	kg CO_2 eq	4,39E-02	4,06E-02	1,85E-04	2,55E-03	1,36E-04	3,09E-04	1,97E-05	0	1,07E-04	1,47E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	1,41E-03	1,34E-03	3,46E-05	1,02E-05	2,49E-05	2,56E-07	2,76E-06	0	4,66E-06	-1,16E-03
1.5	Ozone depletion	kg CFC11 eq	2,79E-07	2,32E-07	1,99E-08	8,27E-09	1,41E-08	1,58E-10	1,86E-09	0	3,22E-09	-3,24E-08
1.6	Photochemical ozone formation	kg NMVOC eq	9,06E-03	7,78E-03	6,02E-04	1,00E-04	4,23E-04	4,85E-06	4,43E-05	0	1,06E-04	-1,45E-03
1.7	Acidification	mol H^+ eq	3,10E-02	2,95E-02	7,16E-04	1,62E-04	4,84E-04	4,31E-06	4,08E-05	0	8,84E-05	-1,17E-03
1.8	Eutrophication, freshwater	kg P eq	7,88E-04	7,68E-04	5,59E-06	8,12E-06	4,08E-06	4,14E-07	5,52E-07	0	1,56E-06	-7,11E-05
1.9	Eutrophication, marine	kg N eq	2,73E-03	2,32E-03	1,94E-04	3,11E-05	1,36E-04	1,76E-06	1,42E-05	0	3,06E-05	-3,38E-04
1.10	Eutrophication, terrestrial	mol N eq	2,60E-02	2,15E-02	2,14E-03	3,44E-04	1,50E-03	1,56E-05	1,56E-04	0	3,33E-04	-3,69E-03
1.11	Water use	m^3 depriv.	2,35E+00	2,32E+00	3,44E-03	1,24E-02	2,55E-03	4,94E-03	3,40E-04	0	1,06E-02	-1,17E-01
1.12	Resource use, fossils	MJ	3,28E+01	2,94E+01	1,32E+00	7,48E-01	9,37E-01	1,24E-02	1,24E-01	0	2,46E-01	-3,71E+00
1.13	Resource use, minerals and metals	kg Sb eq	4,72E-05	4,64E-05	2,93E-07	2,57E-07	2,08E-07	1,87E-09	2,96E-08	0	3,45E-08	-1,76E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	2,06E-01	1,89E-01	6,77E-03	3,67E-03	4,85E-03	6,72E-05	6,48E-04	0	1,19E-03	-2,67E-02
2.2	Particulate matter	disease inc.	1,66E-07	1,53E-07	5,69E-09	7,89E-10	4,16E-09	1,17E-10	5,86E-10	0	1,71E-09	-1,66E-08
2.3	Human toxicity, non-cancer	CTUh	4,25E-08	4,02E-08	9,58E-10	3,04E-10	6,88E-10	1,49E-11	9,63E-11	0	2,16E-10	-4,10E-09
2.4	Human toxicity, cancer	CTUh	6,55E-09	6,43E-09	4,00E-11	3,06E-11	2,82E-11	1,42E-12	3,38E-12	0	8,22E-12	-1,48E-09
2.5	Ecotoxicity, freshwater	CTUe	7,06E+01	6,75E+01	9,84E-01	4,63E-01	7,06E-01	2,65E-02	9,49E-02	0	8,55E-01	-4,53E+00
2.6	Land use	Pt	1,58E+01	1,35E+01	8,36E-01	1,36E-01	6,50E-01	2,15E-02	8,55E-02	0	5,88E-01	-9,66E+01

3	**Resource use**										
3.1	Use of renewable primary energy (mat.)	MJ	8,65E-01	8,65E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	2,00E+00	1,90E+00	1,67E-02	6,62E-02	1,22E-02	2,64E-04	1,67E-03	0	4,32E-03	-1,78E+01
3.3	Use of renewable primary energy (tot)	MJ	2,86E+00	2,76E+00	1,67E-02	6,62E-02	1,22E-02	2,64E-04	1,67E-03	0	4,32E-03	-1,78E+01
3.4	Use of non-renewable primary energy (mat)	MJ	4,18E-02	4,18E-02	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	3,50E+01	3,14E+01	1,40E+00	8,14E-01	9,95E-01	1,31E-02	1,32E-01	0	2,62E-01	-3,98E+00
3.6	Use of non-renewable primary energy (tot)	MJ	3,51E+01	3,15E+01	1,40E+00	8,14E-01	9,95E-01	1,31E-02	1,32E-01	0	2,62E-01	-3,98E+00
3.7	Use of secondary materials	MJ	0	0	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	4,54E-02	4,39E-02	2,12E-04	6,28E-04	1,58E-04	1,49E-04	2,08E-05	0	2,78E-04	-1,31E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	3,07E-02	1,41E-02	6,31E-05	5,06E-04	4,59E-05	1,57E-02	6,09E-06	0	2,32E-04	-8,12E-04
4.2	Non-hazardous waste disposed	kg	2,45E+00	1,26E+00	5,72E-02	4,35E-02	4,51E-02	4,92E-02	5,95E-03	0	9,92E-01	-5,40E-02
4.3	Radioactive waste disposed	kg	1,02E-04	8,30E-05	9,03E-06	1,31E-06	6,42E-06	7,38E-08	8,50E-07	0	1,48E-06	-1,48E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	3,07E-02	3,94E-05	0	1,74E-02	0	1,32E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 5 – Environmental impact ofi 1 kg di Acrisyl Liscio Bianco. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1

ACRISYL LISCIO MEDIUM

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	1,30E+00	9,73E-01	7,18E-02	5,67E-02	1,35E-01	2,09E-03	8,17E-03	0	5,50E-02	1,28E+00
1.2	Climate change - Fossil	kg CO_2 eq	1,30E+00	9,73E-01	7,16E-02	5,41E-02	1,35E-01	1,72E-03	8,14E-03	0	5,49E-02	-1,90E-01
1.3	Climate change - Biogenic	kg CO_2 eq	2,13E-03	-1,15E-03	1,71E-04	2,55E-03	5,14E-05	3,70E-04	1,97E-05	0	1,07E-04	1,47E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	8,53E-04	7,20E-04	2,45E-05	1,02E-05	9,02E-05	2,56E-07	2,76E-06	0	4,66E-06	-1,16E-03
1.5	Ozone depletion	kg CFC11 eq	1,96E-07	1,39E-07	1,62E-08	8,27E-09	2,74E-08	1,58E-10	1,86E-09	0	3,22E-09	-3,24E-08
1.6	Photochemical ozone formation	kg NMVOC eq	7,20E-03	3,80E-03	3,05E-04	1,00E-04	2,84E-03	4,87E-06	4,43E-05	0	1,06E-04	-1,45E-03
1.7	Acidification	mol H^+ eq	1,76E-02	1,30E-02	3,05E-04	1,62E-04	3,99E-03	4,32E-06	4,08E-05	0	8,84E-05	-1,17E-03
1.8	Eutrophication, freshwater	kg P eq	4,09E-04	3,89E-04	4,82E-06	8,12E-06	5,00E-06	4,14E-07	5,52E-07	0	1,56E-06	-7,11E-05
1.9	Eutrophication, marine	kg N eq	2,21E-03	1,06E-03	9,19E-05	3,11E-05	9,84E-04	1,81E-06	1,42E-05	0	3,06E-05	-3,38E-04
1.10	Eutrophication, terrestrial	mol N eq	2,30E-02	1,02E-02	1,00E-03	3,44E-04	1,09E-02	1,56E-05	1,56E-04	0	3,33E-04	-3,69E-03
1.11	Water use	m^3 depriv.	1,12E+00	1,09E+00	2,98E-03	1,24E-02	2,83E-03	4,94E-03	3,40E-04	0	1,06E-02	-1,17E-01
1.12	Resource use, fossils	MJ	2,06E+01	1,66E+01	1,08E+00	7,48E-01	1,75E+00	1,24E-02	1,24E-01	0	2,46E-01	-3,71E+00
1.13	Resource use, minerals and metals	kg Sb eq	3,33E-05	3,25E-05	2,58E-07	2,57E-07	2,14E-07	1,87E-09	2,96E-08	0	3,45E-08	-1,76E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	1,27E-01	1,08E-01	5,65E-03	3,67E-03	8,08E-03	6,72E-05	6,48E-04	0	1,19E-03	-2,67E-02
2.2	Particulate matter	disease inc.	7,55E-08	6,29E-08	4,95E-09	7,89E-10	4,51E-09	1,17E-10	5,86E-10	0	1,71E-09	-1,66E-08
2.3	Human toxicity, non-cancer	CTUh	2,28E-08	2,06E-08	8,38E-10	3,04E-10	7,22E-10	1,50E-11	9,63E-11	0	2,16E-10	-4,10E-09
2.4	Human toxicity, cancer	CTUh	3,37E-09	3,21E-09	2,98E-11	3,06E-11	8,68E-11	1,42E-12	3,38E-12	0	8,22E-12	-1,48E-09
2.5	Ecotoxicity, freshwater	CTUe	3,53E+01	3,20E+01	8,28E-01	4,63E-01	1,10E+00	2,67E-02	9,49E-02	0	8,55E-01	-4,53E+00
2.6	Land use	Pt	9,33E+00	7,38E+00	7,49E-01	1,36E-01	3,71E-01	2,15E-02	8,55E-02	0	5,88E-01	-9,66E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	8,65E-01	8,65E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	8,49E-01	7,49E-01	1,46E-02	6,62E-02	1,27E-02	2,65E-04	1,67E-03	0	4,32E-03	-1,78E+01
3.3	Use of renewable primary energy (tot)	MJ	1,71E+00	1,61E+00	1,46E-02	6,62E-02	1,27E-02	2,65E-04	1,67E-03	0	4,32E-03	-1,78E+01
3.4	Use of non-renewable primary energy (mat)	MJ	4,18E-02	4,18E-02	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	2,20E+01	1,78E+01	1,15E+00	8,14E-01	1,86E+00	1,31E-02	1,32E-01	0	2,62E-01	-3,98E+00
3.6	Use of non-renewable primary energy (tot)	MJ	2,20E+01	1,78E+01	1,15E+00	8,14E-01	1,86E+00	1,31E-02	1,32E-01	0	2,62E-01	-3,98E+00
3.7	Use of secondary materials	MJ	0	0	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	1,73E-02	1,59E-02	1,82E-04	6,28E-04	1,90E-04	1,49E-04	2,08E-05	0	2,78E-04	-1,31E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	2,05E-02	3,90E-03	5,33E-05	5,06E-04	6,94E-05	1,57E-02	6,09E-06	0	2,32E-04	-8,12E-04
4.2	Non-hazardous waste disposed	kg	1,63E+00	4,75E-01	5,22E-02	4,35E-02	1,43E-02	4,92E-02	5,95E-03	0	9,92E-01	-5,40E-02
4.3	Radioactive waste disposed	kg	6,99E-05	4,66E-05	7,41E-06	1,31E-06	1,22E-05	7,39E-08	8,50E-07	0	1,48E-06	-1,48E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	3,07E-02	3,94E-05	0	1,74E-02	0	1,32E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 6 – Environmental impact of 1 kg di Acrisyl Liscio Medium. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1

.

ACRISYL LISCIO TRASPARENTE

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	1,05E+00	7,62E-01	6,14E-02	5,67E-02	1,03E-01	2,11E-03	8,17E-03	0	5,46E-02	1,38E+00
1.2	Climate change - Fossil	kg CO_2 eq	1,06E+00	7,78E-01	6,12E-02	5,41E-02	1,03E-01	1,81E-03	8,14E-03	0	5,45E-02	-2,05E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-1,32E-02	-1,64E-02	1,46E-04	2,55E-03	8,33E-05	3,05E-04	1,97E-05	0	1,06E-04	1,58E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	7,69E-04	6,68E-04	2,11E-05	1,02E-05	6,17E-05	2,68E-07	2,76E-06	0	4,63E-06	-1,26E-03
1.5	Ozone depletion	kg CFC11 eq	1,86E-07	1,37E-07	1,39E-08	8,27E-09	2,15E-08	1,67E-10	1,86E-09	0	3,20E-09	-3,47E-08
1.6	Photochemical ozone formation	kg NMVOC eq	5,19E-03	2,84E-03	2,68E-04	1,00E-04	1,83E-03	5,13E-06	4,43E-05	0	1,06E-04	-1,56E-03
1.7	Acidification	mol H^+ eq	7,16E-03	4,06E-03	2,71E-04	1,62E-04	2,53E-03	4,56E-06	4,08E-05	0	8,78E-05	-1,26E-03
1.8	Eutrophication, freshwater	kg P eq	3,44E-04	3,25E-04	4,12E-06	8,12E-06	4,43E-06	4,43E-07	5,52E-07	0	1,55E-06	-7,65E-05
1.9	Eutrophication, marine	kg N eq	1,55E-03	7,63E-04	8,11E-05	3,11E-05	6,31E-04	1,85E-06	1,42E-05	0	3,04E-05	-3,64E-04
1.10	Eutrophication, terrestrial	mol N eq	1,66E-02	7,86E-03	8,86E-04	3,44E-04	7,00E-03	1,65E-05	1,56E-04	0	3,30E-04	-3,98E-03
1.11	Water use	m^3 depriv.	7,08E-01	6,74E-01	2,55E-03	1,24E-02	2,60E-03	4,99E-03	3,40E-04	0	1,05E-02	-1,27E-01
1.12	Resource use, fossils	MJ	1,89E+01	1,55E+01	9,24E-01	7,48E-01	1,39E+00	1,31E-02	1,24E-01	0	2,45E-01	-3,97E+00
1.13	Resource use, minerals and metals	kg Sb eq	3,45E-05	3,37E-05	2,20E-07	2,57E-07	2,07E-07	1,97E-09	2,96E-08	0	3,42E-08	-1,89E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	1,10E-01	9,25E-02	4,82E-03	3,67E-03	6,64E-03	7,06E-05	6,48E-04	0	1,19E-03	-2,87E-02
2.2	Particulate matter	disease inc.	4,88E-08	3,71E-08	4,21E-09	7,89E-10	4,23E-09	1,25E-10	5,86E-10	0	1,69E-09	-1,78E-08
2.3	Human toxicity, non-cancer	CTUh	2,24E-08	2,04E-08	7,14E-10	3,04E-10	6,88E-10	1,56E-11	9,63E-11	0	2,15E-10	-4,42E-09
2.4	Human toxicity, cancer	CTUh	2,15E-09	2,02E-09	2,56E-11	3,06E-11	6,17E-11	1,52E-12	3,38E-12	0	8,16E-12	-1,60E-09
2.5	Ecotoxicity, freshwater	CTUe	2,95E+01	2,64E+01	7,06E-01	4,63E-01	9,11E-01	2,78E-02	9,49E-02	0	8,49E-01	-4,87E+00
2.6	Land use	Pt	8,06E+00	6,13E+00	6,41E-01	1,36E-01	4,57E-01	2,27E-02	8,55E-02	0	5,83E-01	-1,04E+02

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	9,39E-01	9,39E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	5,65E-01	4,68E-01	1,25E-02	6,62E-02	1,23E-02	2,76E-04	1,67E-03	0	4,29E-03	-1,92E+01
3.3	Use of renewable primary energy (tot)	MJ	1,50E+00	1,41E+00	1,25E-02	6,62E-02	1,23E-02	2,76E-04	1,67E-03	0	4,29E-03	-1,92E+01
3.4	Use of non-renewable primary energy (mat)	MJ	4,54E-02	4,54E-02	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	2,02E+01	1,65E+01	9,81E-01	8,14E-01	1,48E+00	1,39E-02	1,32E-01	0	2,60E-01	-4,27E+00
3.6	Use of non-renewable primary energy (tot)	MJ	2,02E+01	1,66E+01	9,81E-01	8,14E-01	1,48E+00	1,39E-02	1,32E-01	0	2,60E-01	-4,27E+00
3.7	Use of secondary materials	MJ	0	0	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	9,37E-03	7,97E-03	1,56E-04	6,28E-04	1,70E-04	1,51E-04	2,08E-05	0	2,76E-04	-1,41E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	2,09E-02	3,04E-03	4,56E-05	5,06E-04	5,52E-05	1,70E-02	6,09E-06	0	2,30E-04	-8,75E-04
4.2	Non-hazardous waste disposed	kg	1,30E+00	1,40E-01	4,46E-02	4,35E-02	2,51E-02	5,22E-02	5,95E-03	0	9,85E-01	-5,83E-02
4.3	Radioactive waste disposed	kg	5,90E-05	3,93E-05	6,32E-06	1,31E-06	9,64E-06	7,82E-08	8,50E-07	0	1,47E-06	-1,58E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	3,17E-02	4,25E-05	0	1,74E-02	0	1,42E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 7 – Environmental impact of 1 kg di Acrisyl Liscio Trasparente. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL LISCIO DEEP

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	1,42E+00	1,17E+00	6,14E-02	5,67E-02	6,93E-02	2,17E-03	8,17E-03	0	5,50E-02	1,38E+00
1.2	Climate change - Fossil	kg CO_2 eq	1,42E+00	1,17E+00	6,12E-02	5,41E-02	6,92E-02	1,81E-03	8,14E-03	0	5,49E-02	-2,05E-01
1.3	Climate change - Biogenic	kg CO_2 eq	3,95E-03	6,33E-04	1,46E-04	2,55E-03	1,33E-04	3,58E-04	1,97E-05	0	1,07E-04	1,58E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	9,35E-04	8,65E-04	2,11E-05	1,02E-05	3,11E-05	2,68E-07	2,76E-06	0	4,66E-06	-1,26E-03
1.5	Ozone depletion	kg CFC11 eq	2,11E-07	1,68E-07	1,39E-08	8,27E-09	1,52E-08	1,67E-10	1,86E-09	0	3,22E-09	-3,47E-08
1.6	Photochemical ozone formation	kg NMVOC eq	5,61E-03	4,46E-03	2,68E-04	1,00E-04	6,25E-04	5,14E-06	4,43E-05	0	1,06E-04	-1,56E-03
1.7	Acidification	mol H^+ eq	1,45E-02	1,32E-02	2,71E-04	1,62E-04	7,94E-04	4,56E-06	4,08E-05	0	8,84E-05	-1,26E-03
1.8	Eutrophication, freshwater	kg P eq	4,80E-04	4,61E-04	4,12E-06	8,12E-06	4,23E-06	4,43E-07	5,52E-07	0	1,56E-06	-7,65E-05
1.9	Eutrophication, marine	kg N eq	1,63E-03	1,26E-03	8,11E-05	3,11E-05	2,08E-04	1,89E-06	1,42E-05	0	3,06E-05	-3,64E-04
1.10	Eutrophication, terrestrial	mol N eq	1,62E-02	1,22E-02	8,86E-04	3,44E-04	2,29E-03	1,66E-05	1,56E-04	0	3,33E-04	-3,98E-03
1.11	Water use	m^3 depriv.	1,28E+00	1,25E+00	2,55E-03	1,24E-02	2,53E-03	4,96E-03	3,40E-04	0	1,06E-02	-1,27E-01
1.12	Resource use, fossils	MJ	2,31E+01	2,00E+01	9,24E-01	7,48E-01	1,00E+00	1,31E-02	1,24E-01	0	2,46E-01	-3,97E+00
1.13	Resource use, minerals and metals	kg Sb eq	3,86E-05	3,78E-05	2,20E-07	2,57E-07	2,27E-07	1,97E-09	2,96E-08	0	3,45E-08	-1,89E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	1,38E-01	1,23E-01	4,82E-03	3,67E-03	5,14E-03	7,06E-05	6,48E-04	0	1,19E-03	-2,87E-02
2.2	Particulate matter	disease inc.	8,65E-08	7,51E-08	4,21E-09	7,89E-10	3,94E-09	1,25E-10	5,86E-10	0	1,71E-09	-1,78E-08
2.3	Human toxicity, non-cancer	CTUh	2,78E-08	2,58E-08	7,14E-10	3,04E-10	6,80E-10	1,58E-11	9,63E-11	0	2,16E-10	-4,42E-09
2.4	Human toxicity, cancer	CTUh	3,64E-09	3,53E-09	2,56E-11	3,06E-11	3,43E-11	1,51E-12	3,38E-12	0	8,22E-12	-1,60E-09
2.5	Ecotoxicity, freshwater	CTUe	4,23E+01	3,95E+01	7,06E-01	4,63E-01	7,39E-01	2,79E-02	9,49E-02	0	8,55E-01	-4,87E+00
2.6	Land use	Pt	1,03E+01	8,23E+00	6,41E-01	1,36E-01	5,50E-01	2,27E-02	8,55E-02	0	5,88E-01	-1,04E+02

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	9,32E-01	9,32E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	9,58E-01	8,60E-01	1,25E-02	6,62E-02	1,26E-02	2,76E-04	1,67E-03	0	4,32E-03	-1,92E+01
3.3	Use of renewable primary energy (tot)	MJ	1,89E+00	1,79E+00	1,25E-02	6,62E-02	1,26E-02	2,76E-04	1,67E-03	0	4,32E-03	-1,92E+01
3.4	Use of non-renewable primary energy (mat)	MJ	4,51E-02	4,51E-02	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	2,47E+01	2,14E+01	9,81E-01	8,14E-01	1,07E+00	1,39E-02	1,32E-01	0	2,62E-01	-4,27E+00
3.6	Use of non-renewable primary energy (tot)	MJ	2,47E+01	2,14E+01	9,81E-01	8,14E-01	1,07E+00	1,39E-02	1,32E-01	0	2,62E-01	-4,27E+00
3.7	Use of secondary materials	MJ	0	0	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	2,09E-02	1,95E-02	1,56E-04	6,28E-04	1,54E-04	1,50E-04	2,08E-05	0	2,78E-04	-1,41E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	2,39E-02	6,12E-03	4,56E-05	5,06E-04	4,71E-05	1,70E-02	6,09E-06	0	2,32E-04	-8,75E-04
4.2	Non-hazardous waste disposed	kg	1,69E+00	5,20E-01	4,46E-02	4,35E-02	3,63E-02	5,23E-02	5,95E-03	0	9,92E-01	-5,83E-02
4.3	Radioactive waste disposed	kg	7,01E-05	5,32E-05	6,32E-06	1,31E-06	6,89E-06	7,82E-08	8,50E-07	0	1,48E-06	-1,58E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	3,17E-02	4,25E-05	0	1,74E-02	0	1,43E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 8 – Environmental impact of 1 kg di Acrisyl Liscio Deep. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL KP 1,5 BIANCO

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	9,68E-01	6,09E-01	6,66E-02	5,67E-02	1,36E-01	3,66E-02	8,17E-03	0	5,50E-02	1,15E+00
1.2	Climate change - Fossil	kg CO_2 eq	9,78E-01	6,23E-01	6,64E-02	5,41E-02	1,35E-01	3,63E-02	8,14E-03	0	5,49E-02	-1,72E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-1,10E-02	-1,45E-02	1,47E-04	2,55E-03	3,37E-04	3,43E-04	1,97E-05	0	1,07E-04	1,32E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	7,66E-04	6,76E-04	2,43E-05	1,02E-05	4,79E-05	1,48E-07	2,76E-06	0	4,66E-06	-1,05E-03
1.5	Ozone depletion	kg CFC11 eq	1,60E-07	1,01E-07	1,49E-08	8,27E-09	3,07E-08	1,08E-10	1,86E-09	0	3,22E-09	-2,97E-08
1.6	Photochemical ozone formation	kg NMVOC eq	3,57E-03	2,32E-03	3,71E-04	1,00E-04	6,12E-04	9,02E-06	4,43E-05	0	1,06E-04	-1,32E-03
1.7	Acidification	mol H^+ eq	4,79E-03	3,49E-03	4,16E-04	1,62E-04	5,87E-04	6,45E-06	4,08E-05	0	8,84E-05	-1,06E-03
1.8	Eutrophication, freshwater	kg P eq	2,67E-04	2,43E-04	4,31E-06	8,12E-06	9,45E-06	8,02E-08	5,52E-07	0	1,56E-06	-6,44E-05
1.9	Eutrophication, marine	kg N eq	1,01E-03	6,15E-04	1,17E-04	3,11E-05	1,89E-04	8,53E-06	1,42E-05	0	3,06E-05	-3,06E-04
1.10	Eutrophication, terrestrial	mol N eq	1,04E-02	6,24E-03	1,28E-03	3,44E-04	2,06E-03	3,12E-05	1,56E-04	0	3,33E-04	-3,34E-03
1.11	Water use	m^3 depriv.	4,80E-01	4,48E-01	2,66E-03	1,24E-02	5,75E-03	1,66E-04	3,40E-04	0	1,06E-02	-1,06E-01
1.12	Resource use, fossils	MJ	1,53E+01	1,11E+01	9,93E-01	7,48E-01	2,05E+00	7,81E-03	1,24E-01	0	2,46E-01	-3,37E+00
1.13	Resource use, minerals and metals	kg Sb eq	8,32E-06	7,25E-06	2,27E-07	2,57E-07	5,20E-07	1,53E-09	2,96E-08	0	3,45E-08	-1,60E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	8,62E-02	6,47E-02	5,14E-03	3,67E-03	1,08E-02	4,29E-05	6,48E-04	0	1,19E-03	-2,43E-02
2.2	Particulate matter	disease inc.	4,73E-08	3,04E-08	4,43E-09	7,89E-10	9,24E-09	7,76E-11	5,86E-10	0	1,71E-09	-1,50E-08
2.3	Human toxicity, non-cancer	CTUh	2,18E-08	1,88E-08	7,45E-10	3,04E-10	1,58E-09	3,63E-11	9,63E-11	0	2,16E-10	-3,71E-09
2.4	Human toxicity, cancer	CTUh	8,12E-10	6,78E-10	2,88E-11	3,06E-11	5,78E-11	4,94E-12	3,38E-12	0	8,22E-12	-1,34E-09
2.5	Ecotoxicity, freshwater	CTUe	2,04E+01	1,66E+01	7,50E-01	4,63E-01	1,58E+00	2,11E-02	9,49E-02	0	8,55E-01	-4,11E+00
2.6	Land use	Pt	8,30E+00	5,42E+00	6,63E-01	1,36E-01	1,38E+00	1,56E-02	8,55E-02	0	5,88E-01	-8,72E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	7,78E-01	7,78E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	4,28E-01	3,14E-01	1,29E-02	6,62E-02	2,88E-02	2,76E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.3	Use of renewable primary energy (tot)	MJ	1,21E+00	1,09E+00	1,29E-02	6,62E-02	2,88E-02	2,76E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,23E+00	1,23E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	1,51E+01	1,06E+01	1,05E+00	8,14E-01	2,18E+00	8,32E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.6	Use of non-renewable primary energy (tot)	MJ	1,63E+01	1,19E+01	1,05E+00	8,14E-01	2,18E+00	8,32E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.7	Use of secondary materials	MJ	4,36E-02	4,36E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	8,46E-03	7,00E-03	1,64E-04	6,28E-04	3,46E-04	2,17E-05	2,08E-05	0	2,78E-04	-1,20E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	5,46E-03	3,73E-03	4,82E-05	5,06E-04	1,03E-04	8,42E-04	6,09E-06	0	2,32E-04	-7,34E-04
4.2	Non-hazardous waste disposed	kg	1,35E+00	1,25E-01	4,59E-02	4,35E-02	9,57E-02	3,76E-02	5,95E-03	0	9,92E-01	-4,88E-02
4.3	Radioactive waste disposed	kg	5,51E-05	3,06E-05	6,81E-06	1,31E-06	1,40E-05	4,31E-08	8,50E-07	0	1,48E-06	-1,35E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	2,94E-02	4,35E-05	0	1,74E-02	0	1,19E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 9 – Environmental impact of 1 kg di Acrisyl KP 1,5 Bianco. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL KP 1,5 TRASPARENTE

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	6,91E-01	3,65E-01	5,91E-02	5,67E-02	1,10E-01	3,71E-02	8,17E-03	0	5,50E-02	1,20E+00
1.2	Climate change - Fossil	kg CO_2 eq	7,05E-01	3,83E-01	5,89E-02	5,41E-02	1,09E-01	3,68E-02	8,14E-03	0	5,49E-02	-1,79E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-1,55E-02	-1,90E-02	1,39E-04	2,55E-03	2,70E-04	3,62E-04	1,97E-05	0	1,07E-04	1,38E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	5,82E-04	5,06E-04	2,03E-05	1,02E-05	3,82E-05	1,52E-07	2,76E-06	0	4,66E-06	-1,09E-03
1.5	Ozone depletion	kg CFC11 eq	1,23E-07	7,17E-08	1,34E-08	8,27E-09	2,48E-08	1,12E-10	1,86E-09	0	3,22E-09	-3,07E-08
1.6	Photochemical ozone formation	kg NMVOC eq	2,43E-03	1,43E-03	2,62E-04	1,00E-04	4,70E-04	9,23E-06	4,43E-05	0	1,06E-04	-1,37E-03
1.7	Acidification	mol H^+ eq	3,17E-03	2,15E-03	2,68E-04	1,62E-04	4,56E-04	6,60E-06	4,08E-05	0	8,84E-05	-1,10E-03
1.8	Eutrophication, freshwater	kg P eq	1,71E-04	1,49E-04	3,95E-06	8,12E-06	7,56E-06	8,20E-08	5,52E-07	0	1,56E-06	-6,69E-05
1.9	Eutrophication, marine	kg N eq	6,79E-04	3,71E-04	7,97E-05	3,11E-05	1,43E-04	9,08E-06	1,42E-05	0	3,06E-05	-3,18E-04
1.10	Eutrophication, terrestrial	mol N eq	7,12E-03	3,82E-03	8,72E-04	3,44E-04	1,56E-03	3,18E-05	1,56E-04	0	3,33E-04	-3,47E-03
1.11	Water use	m^3 depriv.	3,99E-01	3,69E-01	2,45E-03	1,24E-02	4,61E-03	1,69E-04	3,40E-04	0	1,06E-02	-1,10E-01
1.12	Resource use, fossils	MJ	1,20E+01	8,30E+00	8,89E-01	7,48E-01	1,65E+00	8,14E-03	1,24E-01	0	2,46E-01	-3,50E+00
1.13	Resource use, minerals and metals	kg Sb eq	7,02E-06	6,07E-06	2,09E-07	2,57E-07	4,14E-07	1,58E-09	2,96E-08	0	3,45E-08	-1,66E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	6,51E-02	4,62E-02	4,63E-03	3,67E-03	8,69E-03	4,48E-05	6,48E-04	0	1,19E-03	-2,52E-02
2.2	Particulate matter	disease inc.	3,15E-08	1,68E-08	4,07E-09	7,89E-10	7,46E-09	8,00E-11	5,86E-10	0	1,71E-09	-1,56E-08
2.3	Human toxicity, non-cancer	CTUh	9,51E-09	6,89E-09	6,86E-10	3,04E-10	1,28E-09	3,68E-11	9,63E-11	0	2,16E-10	-3,86E-09
2.4	Human toxicity, cancer	CTUh	5,07E-10	3,89E-10	2,46E-11	3,06E-11	4,63E-11	4,99E-12	3,38E-12	0	8,22E-12	-1,39E-09
2.5	Ecotoxicity, freshwater	CTUe	1,37E+01	1,04E+01	6,79E-01	4,63E-01	1,27E+00	2,14E-02	9,49E-02	0	8,55E-01	-4,27E+00
2.6	Land use	Pt	7,56E+00	5,00E+00	6,21E-01	1,36E-01	1,12E+00	1,64E-02	8,55E-02	0	5,88E-01	-9,07E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	8,10E-01	8,10E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	1,09E+00	9,86E-01	1,19E-02	6,62E-02	2,30E-02	2,88E-04	1,67E-03	0	4,32E-03	-1,67E+01
3.3	Use of renewable primary energy (tot)	MJ	1,09E+00	9,86E-01	1,19E-02	6,62E-02	2,30E-02	2,88E-04	1,67E-03	0	4,32E-03	-1,67E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,29E+00	1,29E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	1,15E+01	7,61E+00	9,44E-01	8,14E-01	1,76E+00	8,67E-03	1,32E-01	0	2,62E-01	-3,76E+00
3.6	Use of non-renewable primary energy (tot)	MJ	1,28E+01	8,89E+00	9,44E-01	8,14E-01	1,76E+00	8,67E-03	1,32E-01	0	2,62E-01	-3,76E+00
3.7	Use of secondary materials	MJ	4,54E-02	4,54E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	4,81E-03	3,44E-03	1,50E-04	6,28E-04	2,79E-04	2,22E-05	2,08E-05	0	2,78E-04	-1,24E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	3,20E-03	1,48E-03	4,39E-05	5,06E-04	8,23E-05	8,51E-04	6,09E-06	0	2,32E-04	-7,63E-04
4.2	Non-hazardous waste disposed	kg	1,27E+00	6,60E-02	4,33E-02	4,35E-02	7,75E-02	3,95E-02	5,95E-03	0	9,92E-01	-5,07E-02
4.3	Radioactive waste disposed	kg	4,27E-05	2,16E-05	6,09E-06	1,31E-06	1,13E-05	4,51E-08	8,50E-07	0	1,48E-06	-1,40E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	2,99E-02	4,53E-05	0	1,74E-02	0	1,24E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 10 – Environmental impact of 1 kg di Acrisyl KP 1,5 Trasparente. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL INTONACHINO BIANCO

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	8,91E-01	5,96E-01	6,74E-02	5,67E-02	7,23E-02	3,50E-02	8,17E-03	0	5,50E-02	1,15E+00
1.2	Climate change - Fossil	kg CO_2 eq	9,02E-01	6,11E-01	6,72E-02	5,41E-02	7,21E-02	3,47E-02	8,14E-03	0	5,49E-02	-1,72E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-1,24E-02	-1,58E-02	1,59E-04	2,55E-03	1,80E-04	3,49E-04	1,97E-05	0	1,07E-04	1,32E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	7,28E-04	6,60E-04	2,31E-05	1,02E-05	2,65E-05	1,48E-07	2,76E-06	0	4,66E-06	-1,05E-03
1.5	Ozone depletion	kg CFC11 eq	1,41E-07	9,59E-08	1,52E-08	8,27E-09	1,64E-08	1,09E-10	1,86E-09	0	3,22E-09	-2,97E-08
1.6	Photochemical ozone formation	kg NMVOC eq	3,19E-03	2,29E-03	2,96E-04	1,00E-04	3,44E-04	8,81E-06	4,43E-05	0	1,06E-04	-1,32E-03
1.7	Acidification	mol H^+ eq	4,34E-03	3,40E-03	3,00E-04	1,62E-04	3,36E-04	6,30E-06	4,08E-05	0	8,84E-05	-1,06E-03
1.8	Eutrophication, freshwater	kg P eq	2,55E-04	2,36E-04	4,51E-06	8,12E-06	5,08E-06	7,86E-08	5,52E-07	0	1,56E-06	-6,44E-05
1.9	Eutrophication, marine	kg N eq	8,82E-04	6,01E-04	8,96E-05	3,11E-05	1,07E-04	8,80E-06	1,42E-05	0	3,06E-05	-3,06E-04
1.10	Eutrophication, terrestrial	mol N eq	9,14E-03	6,13E-03	9,80E-04	3,44E-04	1,17E-03	3,03E-05	1,56E-04	0	3,33E-04	-3,34E-03
1.11	Water use	m^3 depriv.	4,72E-01	4,42E-01	2,79E-03	1,24E-02	3,13E-03	1,66E-04	3,40E-04	0	1,06E-02	-1,06E-01
1.12	Resource use, fossils	MJ	1,41E+01	1,08E+01	1,02E+00	7,48E-01	1,10E+00	7,94E-03	1,24E-01	0	2,46E-01	-3,37E+00
1.13	Resource use, minerals and metals	kg Sb eq	7,91E-06	7,08E-06	2,39E-07	2,57E-07	2,72E-07	1,52E-09	2,96E-08	0	3,45E-08	-1,60E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	7,86E-02	6,20E-02	5,29E-03	3,67E-03	5,76E-03	4,37E-05	6,48E-04	0	1,19E-03	-2,43E-02
2.2	Particulate matter	disease inc.	4,27E-08	2,99E-08	4,65E-09	7,89E-10	4,96E-09	7,72E-11	5,86E-10	0	1,71E-09	-1,50E-08
2.3	Human toxicity, non-cancer	CTUh	2,08E-08	1,85E-08	7,84E-10	3,04E-10	8,41E-10	3,49E-11	9,63E-11	0	2,16E-10	-3,71E-09
2.4	Human toxicity, cancer	CTUh	7,68E-10	6,62E-10	2,80E-11	3,06E-11	3,11E-11	4,69E-12	3,38E-12	0	8,22E-12	-1,34E-09
2.5	Ecotoxicity, freshwater	CTUe	1,94E+01	1,63E+01	7,75E-01	4,63E-01	8,46E-01	2,07E-02	9,49E-02	0	8,55E-01	-4,11E+00
2.6	Land use	Pt	7,37E+00	5,06E+00	7,07E-01	1,36E-01	7,76E-01	1,61E-02	8,55E-02	0	5,88E-01	-8,72E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	7,78E-01	7,78E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	1,12E+00	1,02E+00	1,36E-02	6,62E-02	1,54E-02	2,78E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.3	Use of renewable primary energy (tot)	MJ	1,12E+00	1,02E+00	1,36E-02	6,62E-02	1,54E-02	2,78E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,23E+00	1,23E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	1,38E+01	1,04E+01	1,08E+00	8,14E-01	1,16E+00	8,46E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.6	Use of non-renewable primary energy (tot)	MJ	1,51E+01	1,16E+01	1,08E+00	8,14E-01	1,16E+00	8,46E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.7	Use of secondary materials	MJ	4,36E-02	4,36E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	7,81E-03	6,50E-03	1,71E-04	6,28E-04	1,89E-04	2,12E-05	2,08E-05	0	2,78E-04	-1,20E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	5,29E-03	3,64E-03	5,01E-05	5,06E-04	5,54E-05	8,00E-04	6,09E-06	0	2,32E-04	-7,34E-04
4.2	Non-hazardous waste disposed	kg	1,31E+00	1,23E-01	4,93E-02	4,35E-02	5,39E-02	3,86E-02	5,95E-03	0	9,92E-01	-4,88E-02
4.3	Radioactive waste disposed	kg	4,79E-05	2,97E-05	6,95E-06	1,31E-06	7,48E-06	4,42E-08	8,50E-07	0	1,48E-06	-1,35E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	2,94E-02	4,35E-05	0	1,74E-02	0	1,19E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 11 – Environmental impact of 1 kg di Acrisyl Intonachino Bianco. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL INTONACHINO TRASPARENTE

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	6,29E-01	3,67E-01	6,74E-02	5,67E-02	3,90E-02	3,59E-02	8,17E-03	0	5,50E-02	1,20E+00
1.2	Climate change - Fossil	kg CO_2 eq	6,46E-01	3,87E-01	6,72E-02	5,41E-02	3,89E-02	3,55E-02	8,14E-03	0	5,49E-02	-1,79E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-1,75E-02	-2,08E-02	1,59E-04	2,55E-03	1,00E-04	3,64E-04	1,97E-05	0	1,07E-04	1,38E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	5,54E-04	4,99E-04	2,31E-05	1,02E-05	1,46E-05	1,51E-07	2,76E-06	0	4,66E-06	-1,09E-03
1.5	Ozone depletion	kg CFC11 eq	1,17E-07	7,90E-08	1,52E-08	8,27E-09	8,81E-09	1,13E-10	1,86E-09	0	3,22E-09	-3,07E-08
1.6	Photochemical ozone formation	kg NMVOC eq	2,17E-03	1,44E-03	2,96E-04	1,00E-04	1,67E-04	9,05E-06	4,43E-05	0	1,06E-04	-1,37E-03
1.7	Acidification	mol H^+ eq	2,93E-03	2,17E-03	3,01E-04	1,62E-04	1,62E-04	6,47E-06	4,08E-05	0	8,84E-05	-1,10E-03
1.8	Eutrophication, freshwater	kg P eq	1,65E-04	1,48E-04	4,51E-06	8,12E-06	2,82E-06	8,06E-08	5,52E-07	0	1,56E-06	-6,69E-05
1.9	Eutrophication, marine	kg N eq	5,95E-04	3,69E-04	8,99E-05	3,11E-05	5,06E-05	9,21E-06	1,42E-05	0	3,06E-05	-3,18E-04
1.10	Eutrophication, terrestrial	mol N eq	6,23E-03	3,84E-03	9,83E-04	3,44E-04	5,52E-04	3,11E-05	1,56E-04	0	3,33E-04	-3,47E-03
1.11	Water use	m^3 depriv.	4,03E-01	3,75E-01	2,79E-03	1,24E-02	1,73E-03	1,69E-04	3,40E-04	0	1,06E-02	-1,10E-01
1.12	Resource use, fossils	MJ	1,11E+01	8,39E+00	1,02E+00	7,48E-01	5,91E-01	8,19E-03	1,24E-01	0	2,46E-01	-3,50E+00
1.13	Resource use, minerals and metals	kg Sb eq	6,89E-06	6,17E-06	2,39E-07	2,57E-07	1,54E-07	1,57E-09	2,96E-08	0	3,45E-08	-1,66E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	6,06E-02	4,67E-02	5,29E-03	3,67E-03	3,13E-03	4,52E-05	6,48E-04	0	1,19E-03	-2,52E-02
2.2	Particulate matter	disease inc.	2,73E-08	1,69E-08	4,65E-09	7,89E-10	2,63E-09	7,94E-11	5,86E-10	0	1,71E-09	-1,56E-08
2.3	Human toxicity, non-cancer	CTUh	8,93E-09	7,04E-09	7,84E-10	3,04E-10	4,55E-10	3,57E-11	9,63E-11	0	2,16E-10	-3,86E-09
2.4	Human toxicity, cancer	CTUh	4,72E-10	3,79E-10	2,81E-11	3,06E-11	1,71E-11	4,80E-12	3,38E-12	0	8,22E-12	-1,39E-09
2.5	Ecotoxicity, freshwater	CTUe	1,33E+01	1,06E+01	7,76E-01	4,63E-01	4,61E-01	2,11E-02	9,49E-02	0	8,55E-01	-4,27E+00
2.6	Land use	Pt	6,29E+00	4,34E+00	7,08E-01	1,36E-01	4,20E-01	1,66E-02	8,55E-02	0	5,88E-01	-9,07E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	8,10E-01	8,10E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	9,68E-01	8,73E-01	1,36E-02	6,62E-02	8,58E-03	2,89E-04	1,67E-03	0	4,32E-03	-1,67E+01
3.3	Use of renewable primary energy (tot)	MJ	9,68E-01	8,73E-01	1,36E-02	6,62E-02	8,58E-03	2,89E-04	1,67E-03	0	4,32E-03	-1,67E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,29E+00	1,29E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	1,06E+01	7,70E+00	1,08E+00	8,14E-01	6,28E-01	8,72E-03	1,32E-01	0	2,62E-01	-3,76E+00
3.6	Use of non-renewable primary energy (tot)	MJ	1,19E+01	8,98E+00	1,08E+00	8,14E-01	6,28E-01	8,72E-03	1,32E-01	0	2,62E-01	-3,76E+00
3.7	Use of secondary materials	MJ	4,54E-02	4,54E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	4,36E-03	3,13E-03	1,71E-04	6,28E-04	1,03E-04	2,17E-05	2,08E-05	0	2,78E-04	-1,24E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	3,01E-03	1,37E-03	5,01E-05	5,06E-04	3,04E-05	8,19E-04	6,09E-06	0	2,32E-04	-7,63E-04
4.2	Non-hazardous waste disposed	kg	1,22E+00	6,42E-02	4,94E-02	4,35E-02	2,92E-02	4,00E-02	5,95E-03	0	9,92E-01	-5,07E-02
4.3	Radioactive waste disposed	kg	3,65E-05	2,18E-05	6,95E-06	1,31E-06	4,03E-06	4,56E-08	8,50E-07	0	1,48E-06	-1,40E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	2,99E-02	4,53E-05	0	1,74E-02	0	1,24E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 12 – Environmental impact of 1 kg di Acrisyl Intonachino Trasparente. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL KP 1,8 BIANCO

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	9,56E-01	5,82E-01	4,95E-02	5,67E-02	1,67E-01	3,66E-02	8,17E-03	0	5,50E-02	1,15E+00
1.2	Climate change - Fossil	kg CO_2 eq	9,65E-01	5,95E-01	4,93E-02	5,41E-02	1,67E-01	3,63E-02	8,14E-03	0	5,49E-02	-1,72E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-9,83E-03	-1,34E-02	1,07E-04	2,55E-03	4,16E-04	3,43E-04	1,97E-05	0	1,07E-04	1,32E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	7,56E-04	6,61E-04	1,85E-05	1,02E-05	5,90E-05	1,48E-07	2,76E-06	0	4,66E-06	-1,05E-03
1.5	Ozone depletion	kg CFC11 eq	1,58E-07	9,51E-08	1,11E-08	8,27E-09	3,80E-08	1,08E-10	1,86E-09	0	3,22E-09	-2,97E-08
1.6	Photochemical ozone formation	kg NMVOC eq	3,57E-03	2,20E-03	2,98E-04	1,00E-04	8,17E-04	9,02E-06	4,43E-05	0	1,06E-04	-1,32E-03
1.7	Acidification	mol H^+ eq	4,76E-03	3,35E-03	3,41E-04	1,62E-04	7,71E-04	6,45E-06	4,08E-05	0	8,84E-05	-1,06E-03
1.8	Eutrophication, freshwater	kg P eq	2,59E-04	2,34E-04	3,17E-06	8,12E-06	1,16E-05	8,02E-08	5,52E-07	0	1,56E-06	-6,44E-05
1.9	Eutrophication, marine	kg N eq	1,03E-03	5,98E-04	9,46E-05	3,11E-05	2,57E-04	8,53E-06	1,42E-05	0	3,06E-05	-3,06E-04
1.10	Eutrophication, terrestrial	mol N eq	1,07E-02	6,03E-03	1,04E-03	3,44E-04	2,81E-03	3,12E-05	1,56E-04	0	3,33E-04	-3,34E-03
1.11	Water use	m^3 depriv.	4,67E-01	4,34E-01	1,96E-03	1,24E-02	7,10E-03	1,66E-04	3,40E-04	0	1,06E-02	-1,06E-01
1.12	Resource use, fossils	MJ	1,46E+01	1,02E+01	7,35E-01	7,48E-01	2,54E+00	7,81E-03	1,24E-01	0	2,46E-01	-3,37E+00
1.13	Resource use, minerals and metals	kg Sb eq	7,85E-06	6,72E-06	1,66E-07	2,57E-07	6,39E-07	1,53E-09	2,96E-08	0	3,45E-08	-1,60E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	8,14E-02	5,87E-02	3,80E-03	3,67E-03	1,33E-02	4,29E-05	6,48E-04	0	1,19E-03	-2,43E-02
2.2	Particulate matter	disease inc.	4,77E-08	2,97E-08	3,25E-09	7,89E-10	1,16E-08	7,76E-11	5,86E-10	0	1,71E-09	-1,50E-08
2.3	Human toxicity, non-cancer	CTUh	2,16E-08	1,84E-08	5,46E-10	3,04E-10	1,96E-09	3,63E-11	9,63E-11	0	2,16E-10	-3,71E-09
2.4	Human toxicity, cancer	CTUh	8,10E-10	6,70E-10	2,17E-11	3,06E-11	7,12E-11	4,94E-12	3,38E-12	0	8,22E-12	-1,34E-09
2.5	Ecotoxicity, freshwater	CTUe	2,01E+01	1,62E+01	5,54E-01	4,63E-01	1,96E+00	2,11E-02	9,49E-02	0	8,55E-01	-4,11E+00
2.6	Land use	Pt	8,85E+00	5,81E+00	4,86E-01	1,36E-01	1,72E+00	1,56E-02	8,55E-02	0	5,88E-01	-8,72E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	7,78E-01	7,78E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	1,26E+00	1,14E+00	9,52E-03	6,62E-02	3,54E-02	2,76E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.3	Use of renewable primary energy (tot)	MJ	1,26E+00	1,14E+00	9,52E-03	6,62E-02	3,54E-02	2,76E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,23E+00	1,23E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	1,44E+01	9,71E+00	7,81E-01	8,14E-01	2,70E+00	8,32E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.6	Use of non-renewable primary energy (tot)	MJ	1,56E+01	1,09E+01	7,81E-01	8,14E-01	2,70E+00	8,32E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.7	Use of secondary materials	MJ	4,36E-02	4,36E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	8,13E-03	6,63E-03	1,21E-04	6,28E-04	4,28E-04	2,17E-05	2,08E-05	0	2,78E-04	-1,20E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	5,51E-03	3,76E-03	3,56E-05	5,06E-04	1,27E-04	8,42E-04	6,09E-06	0	2,32E-04	-7,34E-04
4.2	Non-hazardous waste disposed	kg	1,36E+00	1,24E-01	3,36E-02	4,35E-02	1,19E-01	3,76E-02	5,95E-03	0	9,92E-01	-4,88E-02
4.3	Radioactive waste disposed	kg	5,31E-05	2,70E-05	5,04E-06	1,31E-06	1,74E-05	4,31E-08	8,50E-07	0	1,48E-06	-1,35E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	2,94E-02	4,35E-05	0	1,74E-02	0	1,19E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 13 – Environmental impact of 1 kg di Acrisyl KP 1,8 Bianco. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL KP 1,8 TRASPARENTE

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	6,67E-01	3,62E-01	5,14E-02	5,67E-02	1,03E-01	3,05E-02	8,17E-03	0	5,50E-02	1,20E+00
1.2	Climate change - Fossil	kg CO_2 eq	6,81E-01	3,79E-01	5,12E-02	5,41E-02	1,03E-01	3,04E-02	8,14E-03	0	5,49E-02	-1,79E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-1,50E-02	-1,81E-02	1,21E-04	2,55E-03	2,73E-04	7,59E-05	1,97E-05	0	1,07E-04	1,38E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	5,84E-04	5,06E-04	1,77E-05	1,02E-05	4,33E-05	1,43E-07	2,76E-06	0	4,66E-06	-1,09E-03
1.5	Ozone depletion	kg CFC11 eq	1,24E-07	7,55E-08	1,16E-08	8,27E-09	2,32E-08	1,15E-10	1,86E-09	0	3,22E-09	-3,07E-08
1.6	Photochemical ozone formation	kg NMVOC eq	2,32E-03	1,38E-03	2,30E-04	1,00E-04	4,48E-04	8,25E-06	4,43E-05	0	1,06E-04	-1,37E-03
1.7	Acidification	mol H^+ eq	3,11E-03	2,14E-03	2,35E-04	1,62E-04	4,34E-04	5,89E-06	4,08E-05	0	8,84E-05	-1,10E-03
1.8	Eutrophication, freshwater	kg P eq	1,70E-04	1,49E-04	3,44E-06	8,12E-06	7,61E-06	7,25E-08	5,52E-07	0	1,56E-06	-6,69E-05
1.9	Eutrophication, marine	kg N eq	6,65E-04	3,73E-04	6,99E-05	3,11E-05	1,36E-04	9,61E-06	1,42E-05	0	3,06E-05	-3,18E-04
1.10	Eutrophication, terrestrial	mol N eq	6,92E-03	3,81E-03	7,64E-04	3,44E-04	1,49E-03	2,79E-05	1,56E-04	0	3,33E-04	-3,47E-03
1.11	Water use	m^3 depriv.	4,05E-01	3,75E-01	2,13E-03	1,24E-02	4,56E-03	1,66E-04	3,40E-04	0	1,06E-02	-1,10E-01
1.12	Resource use, fossils	MJ	1,14E+01	7,94E+00	7,73E-01	7,48E-01	1,56E+00	8,39E-03	1,24E-01	0	2,46E-01	-3,50E+00
1.13	Resource use, minerals and metals	kg Sb eq	6,82E-06	5,91E-06	1,83E-07	2,57E-07	4,06E-07	1,50E-09	2,96E-08	0	3,45E-08	-1,66E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	6,18E-02	4,39E-02	4,03E-03	3,67E-03	8,31E-03	4,68E-05	6,48E-04	0	1,19E-03	-2,52E-02
2.2	Particulate matter	disease inc.	3,03E-08	1,69E-08	3,53E-09	7,89E-10	6,68E-09	7,70E-11	5,86E-10	0	1,71E-09	-1,56E-08
2.3	Human toxicity, non-cancer	CTUh	9,47E-09	7,05E-09	5,96E-10	3,04E-10	1,18E-09	3,02E-11	9,63E-11	0	2,16E-10	-3,86E-09
2.4	Human toxicity, cancer	CTUh	5,07E-10	3,93E-10	2,15E-11	3,06E-11	4,58E-11	4,04E-12	3,38E-12	0	8,22E-12	-1,39E-09
2.5	Ecotoxicity, freshwater	CTUe	1,36E+01	1,04E+01	5,90E-01	4,63E-01	1,21E+00	1,93E-02	9,49E-02	0	8,55E-01	-4,27E+00
2.6	Land use	Pt	7,71E+00	5,26E+00	5,37E-01	1,36E-01	1,09E+00	1,79E-02	8,55E-02	0	5,88E-01	-9,07E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	8,10E-01	8,10E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	1,14E+00	1,03E+00	1,04E-02	6,62E-02	2,31E-02	2,94E-04	1,67E-03	0	4,32E-03	-1,67E+01
3.3	Use of renewable primary energy (tot)	MJ	1,14E+00	1,03E+00	1,04E-02	6,62E-02	2,31E-02	2,94E-04	1,67E-03	0	4,32E-03	-1,67E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,29E+00	1,29E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	1,09E+01	7,22E+00	8,20E-01	8,14E-01	1,66E+00	8,93E-03	1,32E-01	0	2,62E-01	-3,76E+00
3.6	Use of non-renewable primary energy (tot)	MJ	1,22E+01	8,51E+00	8,20E-01	8,14E-01	1,66E+00	8,93E-03	1,32E-01	0	2,62E-01	-3,76E+00
3.7	Use of secondary materials	MJ	4,54E-02	4,54E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	4,76E-03	3,41E-03	1,30E-04	6,28E-04	2,75E-04	1,99E-05	2,08E-05	0	2,78E-04	-1,24E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	3,06E-03	1,55E-03	3,81E-05	5,06E-04	8,04E-05	6,49E-04	6,09E-06	0	2,32E-04	-7,63E-04
4.2	Non-hazardous waste disposed	kg	1,26E+00	6,73E-02	3,74E-02	4,35E-02	7,32E-02	4,24E-02	5,95E-03	0	9,92E-01	-5,07E-02
4.3	Radioactive waste disposed	kg	3,90E-05	1,94E-05	5,29E-06	1,31E-06	1,06E-05	4,82E-08	8,50E-07	0	1,48E-06	-1,40E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	2,99E-02	4,53E-05	0	1,74E-02	0	1,24E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 14 – Environmental impact of 1 kg di Acrisyl KP 1,8 Trasparente. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL INTONACHINO G.FF. BIANCO

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	1,04E+00	6,65E-01	6,93E-02	5,67E-02	1,51E-01	3,61E-02	8,17E-03	0	5,50E-02	1,15E+00
1.2	Climate change - Fossil	kg CO_2 eq	1,05E+00	6,77E-01	6,91E-02	5,41E-02	1,51E-01	3,58E-02	8,14E-03	0	5,49E-02	-1,72E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-9,63E-03	-1,32E-02	1,51E-04	2,55E-03	3,62E-04	3,48E-04	1,97E-05	0	1,07E-04	1,32E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	8,33E-04	7,37E-04	2,56E-05	1,02E-05	5,16E-05	1,48E-07	2,76E-06	0	4,66E-06	-1,05E-03
1.5	Ozone depletion	kg CFC11 eq	1,72E-07	1,08E-07	1,55E-08	8,27E-09	3,45E-08	1,09E-10	1,86E-09	0	3,22E-09	-2,97E-08
1.6	Photochemical ozone formation	kg NMVOC eq	4,00E-03	2,53E-03	4,08E-04	1,00E-04	7,97E-04	8,97E-06	4,43E-05	0	1,06E-04	-1,32E-03
1.7	Acidification	mol H^+ eq	5,39E-03	3,87E-03	4,64E-04	1,62E-04	7,54E-04	6,42E-06	4,08E-05	0	8,84E-05	-1,06E-03
1.8	Eutrophication, freshwater	kg P eq	2,93E-04	2,68E-04	4,44E-06	8,12E-06	1,02E-05	7,98E-08	5,52E-07	0	1,56E-06	-6,44E-05
1.9	Eutrophication, marine	kg N eq	1,14E-03	6,76E-04	1,29E-04	3,11E-05	2,53E-04	8,70E-06	1,42E-05	0	3,06E-05	-3,06E-04
1.10	Eutrophication, terrestrial	mol N eq	1,19E-02	6,86E-03	1,42E-03	3,44E-04	2,77E-03	3,09E-05	1,56E-04	0	3,33E-04	-3,34E-03
1.11	Water use	m^3 depriv.	5,19E-01	4,86E-01	2,74E-03	1,24E-02	6,39E-03	1,66E-04	3,40E-04	0	1,06E-02	-1,06E-01
1.12	Resource use, fossils	MJ	1,60E+01	1,16E+01	1,03E+00	7,48E-01	2,30E+00	7,90E-03	1,24E-01	0	2,46E-01	-3,37E+00
1.13	Resource use, minerals and metals	kg Sb eq	8,82E-06	7,72E-06	2,33E-07	2,57E-07	5,41E-07	1,54E-09	2,96E-08	0	3,45E-08	-1,60E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	8,96E-02	6,68E-02	5,32E-03	3,67E-03	1,20E-02	4,35E-05	6,48E-04	0	1,19E-03	-2,43E-02
2.2	Particulate matter	disease inc.	5,26E-08	3,40E-08	4,57E-09	7,89E-10	1,08E-08	7,78E-11	5,86E-10	0	1,71E-09	-1,50E-08
2.3	Human toxicity, non-cancer	CTUh	2,49E-08	2,17E-08	7,67E-10	3,04E-10	1,78E-09	3,58E-11	9,63E-11	0	2,16E-10	-3,71E-09
2.4	Human toxicity, cancer	CTUh	9,05E-10	7,65E-10	3,02E-11	3,06E-11	6,30E-11	4,87E-12	3,38E-12	0	8,22E-12	-1,34E-09
2.5	Ecotoxicity, freshwater	CTUe	2,24E+01	1,84E+01	7,76E-01	4,63E-01	1,76E+00	2,10E-02	9,49E-02	0	8,55E-01	-4,11E+00
2.6	Land use	Pt	9,35E+00	6,20E+00	6,81E-01	1,36E-01	1,64E+00	1,59E-02	8,55E-02	0	5,88E-01	-8,72E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	7,78E-01	7,78E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	1,31E+00	1,19E+00	1,33E-02	6,62E-02	3,10E-02	2,79E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.3	Use of renewable primary energy (tot)	MJ	1,31E+00	1,19E+00	1,33E-02	6,62E-02	3,10E-02	2,79E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,23E+00	1,23E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	1,59E+01	1,11E+01	1,09E+00	8,14E-01	2,44E+00	8,41E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.6	Use of non-renewable primary energy (tot)	MJ	1,71E+01	1,24E+01	1,09E+00	8,14E-01	2,44E+00	8,41E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.7	Use of secondary materials	MJ	4,36E-02	4,36E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	9,12E-03	7,61E-03	1,69E-04	6,28E-04	3,92E-04	2,16E-05	2,08E-05	0	2,78E-04	-1,20E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	6,06E-03	4,33E-03	4,98E-05	5,06E-04	1,14E-04	8,28E-04	6,09E-06	0	2,32E-04	-7,34E-04
4.2	Non-hazardous waste disposed	kg	1,39E+00	1,45E-01	4,70E-02	4,35E-02	1,15E-01	3,82E-02	5,95E-03	0	9,92E-01	-4,88E-02
4.3	Radioactive waste disposed	kg	5,85E-05	3,20E-05	7,06E-06	1,31E-06	1,57E-05	4,38E-08	8,50E-07	0	1,48E-06	-1,35E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	2,94E-02	4,35E-05	0	1,74E-02	0	1,19E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 15 – Environmental impact of 1 kg di Acrisyl Intonachino g. ff. Bianco. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL INTONACHINO G.FF. TRASPARENTE

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	7,41E-01	3,87E-01	6,60E-02	5,67E-02	1,36E-01	3,21E-02	8,17E-03	0	5,50E-02	1,20E+00
1.2	Climate change - Fossil	kg CO_2 eq	7,55E-01	4,05E-01	6,59E-02	5,41E-02	1,36E-01	3,21E-02	8,14E-03	0	5,49E-02	-1,79E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-1,46E-02	-1,79E-02	1,54E-04	2,55E-03	3,39E-04	7,56E-05	1,97E-05	0	1,07E-04	1,38E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	6,33E-04	5,44E-04	2,29E-05	1,02E-05	4,81E-05	1,45E-07	2,76E-06	0	4,66E-06	-1,09E-03
1.5	Ozone depletion	kg CFC11 eq	1,41E-07	8,17E-08	1,49E-08	8,27E-09	3,08E-08	1,14E-10	1,86E-09	0	3,22E-09	-3,07E-08
1.6	Photochemical ozone formation	kg NMVOC eq	2,72E-03	1,51E-03	3,04E-04	1,00E-04	6,49E-04	8,49E-06	4,43E-05	0	1,06E-04	-1,37E-03
1.7	Acidification	mol H^+ eq	3,57E-03	2,34E-03	3,15E-04	1,62E-04	6,16E-04	6,07E-06	4,08E-05	0	8,84E-05	-1,10E-03
1.8	Eutrophication, freshwater	kg P eq	1,86E-04	1,62E-04	4,38E-06	8,12E-06	9,49E-06	7,44E-08	5,52E-07	0	1,56E-06	-6,69E-05
1.9	Eutrophication, marine	kg N eq	7,78E-04	3,97E-04	9,29E-05	3,11E-05	2,03E-04	9,44E-06	1,42E-05	0	3,06E-05	-3,18E-04
1.10	Eutrophication, terrestrial	mol N eq	8,17E-03	4,07E-03	1,02E-03	3,44E-04	2,22E-03	2,89E-05	1,56E-04	0	3,33E-04	-3,47E-03
1.11	Water use	m^3 depriv.	4,33E-01	4,01E-01	2,71E-03	1,24E-02	5,78E-03	1,67E-04	3,40E-04	0	1,06E-02	-1,10E-01
1.12	Resource use, fossils	MJ	1,28E+01	8,58E+00	9,93E-01	7,48E-01	2,06E+00	8,32E-03	1,24E-01	0	2,46E-01	-3,50E+00
1.13	Resource use, minerals and metals	kg Sb eq	7,61E-06	6,53E-06	2,33E-07	2,57E-07	5,22E-07	1,52E-09	2,96E-08	0	3,45E-08	-1,66E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	6,92E-02	4,76E-02	5,17E-03	3,67E-03	1,08E-02	4,63E-05	6,48E-04	0	1,19E-03	-2,52E-02
2.2	Particulate matter	disease inc.	3,51E-08	1,82E-08	4,52E-09	7,89E-10	9,30E-09	7,77E-11	5,86E-10	0	1,71E-09	-1,56E-08
2.3	Human toxicity, non-cancer	CTUh	1,06E-08	7,60E-09	7,63E-10	3,04E-10	1,58E-09	3,18E-11	9,63E-11	0	2,16E-10	-3,86E-09
2.4	Human toxicity, cancer	CTUh	5,56E-10	4,24E-10	2,77E-11	3,06E-11	5,80E-11	4,28E-12	3,38E-12	0	8,22E-12	-1,39E-09
2.5	Ecotoxicity, freshwater	CTUe	1,49E+01	1,11E+01	7,56E-01	4,63E-01	1,59E+00	1,96E-02	9,49E-02	0	8,55E-01	-4,27E+00
2.6	Land use	Pt	8,58E+00	5,68E+00	6,86E-01	1,36E-01	1,39E+00	1,75E-02	8,55E-02	0	5,88E-01	-9,07E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	8,10E-01	8,10E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	1,20E+00	1,08E+00	1,33E-02	6,62E-02	2,89E-02	2,92E-04	1,67E-03	0	4,32E-03	-1,67E+01
3.3	Use of renewable primary energy (tot)	MJ	1,20E+00	1,08E+00	1,33E-02	6,62E-02	2,89E-02	2,92E-04	1,67E-03	0	4,32E-03	-1,67E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,29E+00	1,29E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	1,24E+01	7,90E+00	1,05E+00	8,14E-01	2,19E+00	8,86E-03	1,32E-01	0	2,62E-01	-3,76E+00
3.6	Use of non-renewable primary energy (tot)	MJ	1,36E+01	9,19E+00	1,05E+00	8,14E-01	2,19E+00	8,86E-03	1,32E-01	0	2,62E-01	-3,76E+00
3.7	Use of secondary materials	MJ	4,54E-02	4,54E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	5,10E-03	3,64E-03	1,67E-04	6,28E-04	3,48E-04	2,05E-05	2,08E-05	0	2,78E-04	-1,24E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	3,23E-03	1,65E-03	4,87E-05	5,06E-04	1,03E-04	6,90E-04	6,09E-06	0	2,32E-04	-7,63E-04
4.2	Non-hazardous waste disposed	kg	1,30E+00	7,49E-02	4,77E-02	4,35E-02	9,63E-02	4,17E-02	5,95E-03	0	9,92E-01	-5,07E-02
4.3	Radioactive waste disposed	kg	4,69E-05	2,23E-05	6,80E-06	1,31E-06	1,41E-05	4,74E-08	8,50E-07	0	1,48E-06	-1,40E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	2,99E-02	4,53E-05	0	1,74E-02	0	1,24E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 16 – Environmental impact of 1 kg di Acrisyl g. ff. Trasparente. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL KP 1,2 BIANCO

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	8,67E-01	6,12E-01	7,22E-02	5,67E-02	2,63E-02	3,66E-02	8,17E-03	0	5,50E-02	1,15E+00
1.2	Climate change - Fossil	kg CO_2 eq	8,78E-01	6,27E-01	7,20E-02	5,41E-02	2,62E-02	3,63E-02	8,14E-03	0	5,49E-02	-1,72E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-1,22E-02	-1,55E-02	1,61E-04	2,55E-03	6,93E-05	3,43E-04	1,97E-05	0	1,07E-04	1,32E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	7,23E-04	6,69E-04	2,60E-05	1,02E-05	1,01E-05	1,48E-07	2,76E-06	0	4,66E-06	-1,05E-03
1.5	Ozone depletion	kg CFC11 eq	1,35E-07	9,91E-08	1,62E-08	8,27E-09	5,92E-09	1,08E-10	1,86E-09	0	3,22E-09	-2,97E-08
1.6	Photochemical ozone formation	kg NMVOC eq	3,02E-03	2,28E-03	3,89E-04	1,00E-04	9,54E-05	9,02E-06	4,43E-05	0	1,06E-04	-1,32E-03
1.7	Acidification	mol H^+ eq	4,23E-03	3,41E-03	4,29E-04	1,62E-04	9,67E-05	6,45E-06	4,08E-05	0	8,84E-05	-1,06E-03
1.8	Eutrophication, freshwater	kg P eq	2,61E-04	2,44E-04	4,69E-06	8,12E-06	1,96E-06	8,02E-08	5,52E-07	0	1,56E-06	-6,44E-05
1.9	Eutrophication, marine	kg N eq	8,65E-04	6,31E-04	1,22E-04	3,11E-05	2,73E-05	8,53E-06	1,42E-05	0	3,06E-05	-3,06E-04
1.10	Eutrophication, terrestrial	mol N eq	8,74E-03	6,24E-03	1,34E-03	3,44E-04	2,97E-04	3,12E-05	1,56E-04	0	3,33E-04	-3,34E-03
1.11	Water use	m^3 depriv.	4,73E-01	4,46E-01	2,90E-03	1,24E-02	1,21E-03	1,66E-04	3,40E-04	0	1,06E-02	-1,06E-01
1.12	Resource use, fossils	MJ	1,36E+01	1,10E+01	1,08E+00	7,48E-01	3,99E-01	7,81E-03	1,24E-01	0	2,46E-01	-3,37E+00
1.13	Resource use, minerals and metals	kg Sb eq	7,81E-06	7,14E-06	2,46E-07	2,57E-07	1,08E-07	1,53E-09	2,96E-08	0	3,45E-08	-1,60E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	8,05E-02	6,72E-02	5,59E-03	3,67E-03	2,12E-03	4,29E-05	6,48E-04	0	1,19E-03	-2,43E-02
2.2	Particulate matter	disease inc.	4,00E-08	3,02E-08	4,85E-09	7,89E-10	1,73E-09	7,76E-11	5,86E-10	0	1,71E-09	-1,50E-08
2.3	Human toxicity, non-cancer	CTUh	2,00E-08	1,82E-08	8,14E-10	3,04E-10	3,07E-10	3,63E-11	9,63E-11	0	2,16E-10	-3,71E-09
2.4	Human toxicity, cancer	CTUh	7,56E-10	6,66E-10	3,09E-11	3,06E-11	1,18E-11	4,94E-12	3,38E-12	0	8,22E-12	-1,34E-09
2.5	Ecotoxicity, freshwater	CTUe	1,86E+01	1,60E+01	8,16E-01	4,63E-01	3,14E-01	2,11E-02	9,49E-02	0	8,55E-01	-4,11E+00
2.6	Land use	Pt	6,95E+00	5,10E+00	7,29E-01	1,36E-01	2,91E-01	1,56E-02	8,55E-02	0	5,88E-01	-8,72E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	7,78E-01	7,78E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	1,17E+00	1,07E+00	1,41E-02	6,62E-02	5,97E-03	2,76E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.3	Use of renewable primary energy (tot)	MJ	1,17E+00	1,07E+00	1,41E-02	6,62E-02	5,97E-03	2,76E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,23E+00	1,23E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	1,34E+01	1,06E+01	1,15E+00	8,14E-01	4,23E-01	8,32E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.6	Use of non-renewable primary energy (tot)	MJ	1,46E+01	1,18E+01	1,15E+00	8,14E-01	4,23E-01	8,32E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.7	Use of secondary materials	MJ	4,36E-02	4,36E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	8,24E-03	7,04E-03	1,79E-04	6,28E-04	7,10E-05	2,17E-05	2,08E-05	0	2,78E-04	-1,20E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	5,33E-03	3,67E-03	5,25E-05	5,06E-04	2,10E-05	8,42E-04	6,09E-06	0	2,32E-04	-7,34E-04
4.2	Non-hazardous waste disposed	kg	1,28E+00	1,26E-01	5,06E-02	4,35E-02	2,04E-02	3,76E-02	5,95E-03	0	9,92E-01	-4,88E-02
4.3	Radioactive waste disposed	kg	4,42E-05	3,04E-05	7,40E-06	1,31E-06	2,71E-06	4,31E-08	8,50E-07	0	1,48E-06	-1,35E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	2,94E-02	4,35E-05	0	1,74E-02	0	1,19E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 17 – Environmental impact of 1 kg di Acrisyl KP 1,2 Bianco. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL KP 1,2 TRASPARENTE

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	6,31E-01	3,78E-01	6,76E-02	5,67E-02	2,91E-02	3,66E-02	8,17E-03	0	5,50E-02	1,15E+00
1.2	Climate change - Fossil	kg CO_2 eq	6,47E-01	3,97E-01	6,74E-02	5,41E-02	2,90E-02	3,63E-02	8,14E-03	0	5,49E-02	-1,72E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-1,66E-02	-1,99E-02	1,59E-04	2,55E-03	7,56E-05	3,43E-04	1,97E-05	0	1,07E-04	1,32E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	5,57E-04	5,05E-04	2,31E-05	1,02E-05	1,09E-05	1,48E-07	2,76E-06	0	4,66E-06	-1,05E-03
1.5	Ozone depletion	kg CFC11 eq	1,13E-07	7,76E-08	1,53E-08	8,27E-09	6,59E-09	1,08E-10	1,86E-09	0	3,22E-09	-2,97E-08
1.6	Photochemical ozone formation	kg NMVOC eq	2,09E-03	1,43E-03	2,97E-04	1,00E-04	9,71E-05	9,02E-06	4,43E-05	0	1,06E-04	-1,32E-03
1.7	Acidification	mol H^+ eq	2,83E-03	2,13E-03	3,01E-04	1,62E-04	1,00E-04	6,45E-06	4,08E-05	0	8,84E-05	-1,06E-03
1.8	Eutrophication, freshwater	kg P eq	1,71E-04	1,54E-04	4,51E-06	8,12E-06	2,17E-06	8,02E-08	5,52E-07	0	1,56E-06	-6,44E-05
1.9	Eutrophication, marine	kg N eq	6,00E-04	3,99E-04	9,01E-05	3,11E-05	2,66E-05	8,53E-06	1,42E-05	0	3,06E-05	-3,06E-04
1.10	Eutrophication, terrestrial	mol N eq	6,06E-03	3,93E-03	9,85E-04	3,44E-04	2,90E-04	3,12E-05	1,56E-04	0	3,33E-04	-3,34E-03
1.11	Water use	m^3 depriv.	4,03E-01	3,76E-01	2,79E-03	1,24E-02	1,36E-03	1,66E-04	3,40E-04	0	1,06E-02	-1,06E-01
1.12	Resource use, fossils	MJ	1,11E+01	8,56E+00	1,02E+00	7,48E-01	4,43E-01	7,81E-03	1,24E-01	0	2,46E-01	-3,37E+00
1.13	Resource use, minerals and metals	kg Sb eq	6,89E-06	6,21E-06	2,39E-07	2,57E-07	1,16E-07	1,53E-09	2,96E-08	0	3,45E-08	-1,60E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	6,34E-02	5,02E-02	5,31E-03	3,67E-03	2,35E-03	4,29E-05	6,48E-04	0	1,19E-03	-2,43E-02
2.2	Particulate matter	disease inc.	2,68E-08	1,71E-08	4,67E-09	7,89E-10	1,96E-09	7,76E-11	5,86E-10	0	1,71E-09	-1,50E-08
2.3	Human toxicity, non-cancer	CTUh	8,37E-09	6,59E-09	7,86E-10	3,04E-10	3,42E-10	3,63E-11	9,63E-11	0	2,16E-10	-3,71E-09
2.4	Human toxicity, cancer	CTUh	4,75E-10	3,86E-10	2,81E-11	3,06E-11	1,29E-11	4,94E-12	3,38E-12	0	8,22E-12	-1,34E-09
2.5	Ecotoxicity, freshwater	CTUe	1,27E+01	1,01E+01	7,77E-01	4,63E-01	3,49E-01	2,11E-02	9,49E-02	0	8,55E-01	-4,11E+00
2.6	Land use	Pt	6,59E+00	4,71E+00	7,11E-01	1,36E-01	3,46E-01	1,56E-02	8,55E-02	0	5,88E-01	-8,72E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	8,10E-01	8,10E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	1,07E+00	9,82E-01	1,36E-02	6,62E-02	6,56E-03	2,76E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.3	Use of renewable primary energy (tot)	MJ	1,07E+00	9,82E-01	1,36E-02	6,62E-02	6,56E-03	2,76E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,29E+00	1,29E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	1,06E+01	7,88E+00	1,08E+00	8,14E-01	4,70E-01	8,32E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.6	Use of non-renewable primary energy (tot)	MJ	1,19E+01	9,17E+00	1,08E+00	8,14E-01	4,70E-01	8,32E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.7	Use of secondary materials	MJ	4,54E-02	4,54E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	4,63E-03	3,42E-03	1,72E-04	6,28E-04	8,07E-05	2,17E-05	2,08E-05	0	2,78E-04	-1,20E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	3,09E-03	1,43E-03	5,00E-05	5,06E-04	2,35E-05	8,42E-04	6,09E-06	0	2,32E-04	-7,34E-04
4.2	Non-hazardous waste disposed	kg	1,22E+00	6,78E-02	4,96E-02	4,35E-02	2,46E-02	3,76E-02	5,95E-03	0	9,92E-01	-4,88E-02
4.3	Radioactive waste disposed	kg	3,57E-05	2,20E-05	6,97E-06	1,31E-06	3,02E-06	4,31E-08	8,50E-07	0	1,48E-06	-1,35E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	2,94E-02	4,53E-05	0	1,74E-02	0	1,19E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 18 – Environmental impact of 1 kg di Acrisyl KP 1,2 Trasparente. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL KP 1 BIANCO

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	8,88E-01	5,28E-01	6,79E-02	5,67E-02	1,36E-01	3,66E-02	8,17E-03	0	5,50E-02	1,15E+00
1.2	Climate change - Fossil	kg CO_2 eq	8,96E-01	5,40E-01	6,77E-02	5,41E-02	1,36E-01	3,63E-02	8,14E-03	0	5,49E-02	-1,72E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-8,63E-03	-1,21E-02	1,60E-04	2,55E-03	3,29E-04	3,43E-04	1,97E-05	0	1,07E-04	1,32E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	6,64E-04	5,76E-04	2,33E-05	1,02E-05	4,66E-05	1,48E-07	2,76E-06	0	4,66E-06	-1,05E-03
1.5	Ozone depletion	kg CFC11 eq	1,53E-07	9,36E-08	1,53E-08	8,27E-09	3,10E-08	1,08E-10	1,86E-09	0	3,22E-09	-2,97E-08
1.6	Photochemical ozone formation	kg NMVOC eq	3,40E-03	2,11E-03	2,99E-04	1,00E-04	7,29E-04	9,02E-06	4,43E-05	0	1,06E-04	-1,32E-03
1.7	Acidification	mol H^+ eq	7,66E-03	6,38E-03	3,03E-04	1,62E-04	6,73E-04	6,45E-06	4,08E-05	0	8,84E-05	-1,06E-03
1.8	Eutrophication, freshwater	kg P eq	2,28E-04	2,04E-04	4,54E-06	8,12E-06	9,24E-06	8,02E-08	5,52E-07	0	1,56E-06	-6,44E-05
1.9	Eutrophication, marine	kg N eq	9,75E-04	5,66E-04	9,06E-05	3,11E-05	2,34E-04	8,53E-06	1,42E-05	0	3,06E-05	-3,06E-04
1.10	Eutrophication, terrestrial	mol N eq	9,90E-03	5,50E-03	9,91E-04	3,44E-04	2,55E-03	3,12E-05	1,56E-04	0	3,33E-04	-3,34E-03
1.11	Water use	m^3 depriv.	6,51E-01	6,19E-01	2,81E-03	1,24E-02	5,69E-03	1,66E-04	3,40E-04	0	1,06E-02	-1,06E-01
1.12	Resource use, fossils	MJ	1,45E+01	1,03E+01	1,02E+00	7,48E-01	2,07E+00	7,81E-03	1,24E-01	0	2,46E-01	-3,37E+00
1.13	Resource use, minerals and metals	kg Sb eq	8,41E-06	7,36E-06	2,41E-07	2,57E-07	4,95E-07	1,53E-09	2,96E-08	0	3,45E-08	-1,60E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	8,26E-02	6,09E-02	5,33E-03	3,67E-03	1,08E-02	4,29E-05	6,48E-04	0	1,19E-03	-2,43E-02
2.2	Particulate matter	disease inc.	4,87E-08	3,11E-08	4,68E-09	7,89E-10	9,72E-09	7,76E-11	5,86E-10	0	1,71E-09	-1,50E-08
2.3	Human toxicity, non-cancer	CTUh	1,22E-08	9,12E-09	7,89E-10	3,04E-10	1,60E-09	3,63E-11	9,63E-11	0	2,16E-10	-3,71E-09
2.4	Human toxicity, cancer	CTUh	1,13E-09	9,96E-10	2,83E-11	3,06E-11	5,66E-11	4,94E-12	3,38E-12	0	8,22E-12	-1,34E-09
2.5	Ecotoxicity, freshwater	CTUe	1,90E+01	1,52E+01	7,81E-01	4,63E-01	1,58E+00	2,11E-02	9,49E-02	0	8,55E-01	-4,11E+00
2.6	Land use	Pt	8,61E+00	5,64E+00	7,12E-01	1,36E-01	1,43E+00	1,56E-02	8,55E-02	0	5,88E-01	-8,72E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	7,78E-01	7,78E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	1,23E+00	1,12E+00	1,37E-02	6,62E-02	2,80E-02	2,76E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.3	Use of renewable primary energy (tot)	MJ	1,23E+00	1,12E+00	1,37E-02	6,62E-02	2,80E-02	2,76E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,23E+00	1,23E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	1,43E+01	9,81E+00	1,09E+00	8,14E-01	2,20E+00	8,32E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.6	Use of non-renewable primary energy (tot)	MJ	1,55E+01	1,10E+01	1,09E+00	8,14E-01	2,20E+00	8,32E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.7	Use of secondary materials	MJ	4,36E-02	4,36E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	8,73E-03	7,26E-03	1,72E-04	6,28E-04	3,49E-04	2,17E-05	2,08E-05	0	2,78E-04	-1,20E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	3,81E-03	2,07E-03	5,04E-05	5,06E-04	1,02E-04	8,42E-04	6,09E-06	0	2,32E-04	-7,34E-04
4.2	Non-hazardous waste disposed	kg	1,45E+00	2,21E-01	4,96E-02	4,35E-02	9,96E-02	3,76E-02	5,95E-03	0	9,92E-01	-4,88E-02
4.3	Radioactive waste disposed	kg	5,29E-05	2,81E-05	7,00E-06	1,31E-06	1,42E-05	4,31E-08	8,50E-07	0	1,48E-06	-1,35E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	2,94E-02	4,35E-05	0	1,74E-02	0	1,19E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 19 – Environmental impact of 1 kg di Acrisyl KP 1 Bianco. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL KP 1 TRASPARENTE

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	8,28E-01	4,05E-01	6,83E-02	5,67E-02	1,99E-01	3,66E-02	8,17E-03	0	5,50E-02	1,15E+00
1.2	Climate change - Fossil	kg CO_2 eq	8,41E-01	4,21E-01	6,81E-02	5,41E-02	1,98E-01	3,63E-02	8,14E-03	0	5,49E-02	-1,72E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-1,35E-02	-1,72E-02	1,61E-04	2,55E-03	4,84E-04	3,43E-04	1,97E-05	0	1,07E-04	1,32E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	6,53E-04	5,41E-04	2,34E-05	1,02E-05	7,06E-05	1,48E-07	2,76E-06	0	4,66E-06	-1,05E-03
1.5	Ozone depletion	kg CFC11 eq	1,60E-07	8,61E-08	1,54E-08	8,27E-09	4,53E-08	1,08E-10	1,86E-09	0	3,22E-09	-2,97E-08
1.6	Photochemical ozone formation	kg NMVOC eq	3,20E-03	1,57E-03	3,01E-04	1,00E-04	1,07E-03	9,02E-06	4,43E-05	0	1,06E-04	-1,32E-03
1.7	Acidification	mol H^+ eq	3,95E-03	2,36E-03	3,06E-04	1,62E-04	9,85E-04	6,45E-06	4,08E-05	0	8,84E-05	-1,06E-03
1.8	Eutrophication, freshwater	kg P eq	1,94E-04	1,65E-04	4,56E-06	8,12E-06	1,36E-05	8,02E-08	5,52E-07	0	1,56E-06	-6,44E-05
1.9	Eutrophication, marine	kg N eq	9,30E-04	4,12E-04	9,12E-05	3,11E-05	3,42E-04	8,53E-06	1,42E-05	0	3,06E-05	-3,06E-04
1.10	Eutrophication, terrestrial	mol N eq	9,80E-03	4,20E-03	9,97E-04	3,44E-04	3,73E-03	3,12E-05	1,56E-04	0	3,33E-04	-3,34E-03
1.11	Water use	m^3 depriv.	4,38E-01	4,03E-01	2,82E-03	1,24E-02	8,38E-03	1,66E-04	3,40E-04	0	1,06E-02	-1,06E-01
1.12	Resource use, fossils	MJ	1,43E+01	9,11E+00	1,03E+00	7,48E-01	3,02E+00	7,81E-03	1,24E-01	0	2,46E-01	-3,37E+00
1.13	Resource use, minerals and metals	kg Sb eq	7,97E-06	6,69E-06	2,43E-07	2,57E-07	7,10E-07	1,53E-09	2,96E-08	0	3,45E-08	-1,60E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	7,71E-02	5,04E-02	5,36E-03	3,67E-03	1,58E-02	4,29E-05	6,48E-04	0	1,19E-03	-2,43E-02
2.2	Particulate matter	disease inc.	4,06E-08	1,85E-08	4,70E-09	7,89E-10	1,42E-08	7,76E-11	5,86E-10	0	1,71E-09	-1,50E-08
2.3	Human toxicity, non-cancer	CTUh	1,16E-08	7,77E-09	7,94E-10	3,04E-10	2,33E-09	3,63E-11	9,63E-11	0	2,16E-10	-3,71E-09
2.4	Human toxicity, cancer	CTUh	5,87E-10	4,29E-10	2,84E-11	3,06E-11	8,27E-11	4,94E-12	3,38E-12	0	8,22E-12	-1,34E-09
2.5	Ecotoxicity, freshwater	CTUe	1,59E+01	1,14E+01	7,85E-01	4,63E-01	2,31E+00	2,11E-02	9,49E-02	0	8,55E-01	-4,11E+00
2.6	Land use	Pt	9,25E+00	5,57E+00	7,15E-01	1,36E-01	2,14E+00	1,56E-02	8,55E-02	0	5,88E-01	-8,72E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	8,10E-01	8,10E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	1,23E+00	1,10E+00	1,38E-02	6,62E-02	4,10E-02	2,76E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.3	Use of renewable primary energy (tot)	MJ	1,23E+00	1,10E+00	1,38E-02	6,62E-02	4,10E-02	2,76E-04	1,67E-03	0	4,32E-03	-1,61E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,29E+00	1,29E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	1,40E+01	8,47E+00	1,09E+00	8,14E-01	3,21E+00	8,32E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.6	Use of non-renewable primary energy (tot)	MJ	1,53E+01	9,76E+00	1,09E+00	8,14E-01	3,21E+00	8,32E-03	1,32E-01	0	2,62E-01	-3,63E+00
3.7	Use of secondary materials	MJ	4,54E-02	4,54E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	5,28E-03	3,65E-03	1,73E-04	6,28E-04	5,16E-04	2,17E-05	2,08E-05	0	2,78E-04	-1,20E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	3,47E-03	1,68E-03	5,06E-05	5,06E-04	1,49E-04	8,42E-04	6,09E-06	0	2,32E-04	-7,34E-04
4.2	Non-hazardous waste disposed	kg	1,35E+00	7,33E-02	4,99E-02	4,35E-02	1,48E-01	3,76E-02	5,95E-03	0	9,92E-01	-4,88E-02
4.3	Radioactive waste disposed	kg	5,49E-05	2,35E-05	7,04E-06	1,31E-06	2,07E-05	4,31E-08	8,50E-07	0	1,48E-06	-1,35E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	2,94E-02	4,53E-05	0	1,74E-02	0	1,19E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 20 – Environmental impact of 1 kg di Acrisyl KP 1 Trasparente. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL RIEMPITIVO BIANCO

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	1,70E+00	1,38E+00	9,39E-02	5,67E-02	5,96E-02	4,55E-02	8,17E-03	0	5,46E-02	1,27E+00
1.2	Climate change - Fossil	kg CO_2 eq	1,68E+00	1,37E+00	9,36E-02	5,41E-02	5,94E-02	4,50E-02	8,14E-03	0	5,45E-02	-1,89E-01
1.3	Climate change - Biogenic	kg CO_2 eq	1,87E-02	1,52E-02	2,05E-04	2,55E-03	1,51E-04	4,64E-04	1,97E-05	0	1,06E-04	1,46E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	1,10E-03	1,03E-03	3,47E-05	1,02E-05	2,27E-05	2,79E-07	2,76E-06	0	4,63E-06	-1,16E-03
1.5	Ozone depletion	kg CFC11 eq	1,98E-07	1,50E-07	2,10E-08	8,27E-09	1,35E-08	1,39E-10	1,86E-09	0	3,20E-09	-3,23E-08
1.6	Photochemical ozone formation	kg NMVOC eq	6,33E-03	5,29E-03	5,48E-04	1,00E-04	2,36E-04	1,14E-05	4,43E-05	0	1,06E-04	-1,44E-03
1.7	Acidification	mol H^+ eq	2,12E-02	2,01E-02	6,23E-04	1,62E-04	2,36E-04	8,34E-06	4,08E-05	0	8,78E-05	-1,16E-03
1.8	Eutrophication, freshwater	kg P eq	5,02E-04	4,81E-04	6,03E-06	8,12E-06	4,33E-06	1,48E-07	5,52E-07	0	1,55E-06	-7,07E-05
1.9	Eutrophication, marine	kg N eq	1,85E-03	1,52E-03	1,74E-04	3,11E-05	6,85E-05	1,17E-05	1,42E-05	0	3,04E-05	-3,36E-04
1.10	Eutrophication, terrestrial	mol N eq	1,77E-02	1,42E-02	1,91E-03	3,44E-04	7,47E-04	3,92E-05	1,56E-04	0	3,31E-04	-3,67E-03
1.11	Water use	m^3 depriv.	1,69E+00	1,65E+00	3,73E-03	1,24E-02	2,76E-03	8,80E-03	3,40E-04	0	1,05E-02	-1,17E-01
1.12	Resource use, fossils	MJ	2,55E+01	2,20E+01	1,40E+00	7,48E-01	9,09E-01	1,09E-02	1,24E-01	0	2,45E-01	-3,69E+00
1.13	Resource use, minerals and metals	kg Sb eq	1,86E-05	1,77E-05	3,16E-07	2,57E-07	2,19E-07	2,22E-09	2,96E-08	0	3,43E-08	-1,75E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	1,37E-01	1,20E-01	7,22E-03	3,67E-03	4,80E-03	7,79E-05	6,48E-04	0	1,19E-03	-2,66E-02
2.2	Particulate matter	disease inc.	1,13E-07	9,90E-08	6,21E-09	7,89E-10	4,16E-09	9,94E-11	5,86E-10	0	1,70E-09	-1,65E-08
2.3	Human toxicity, non-cancer	CTUh	2,29E-08	2,05E-08	1,04E-09	3,04E-10	7,01E-10	4,85E-11	9,63E-11	0	2,15E-10	-4,07E-09
2.4	Human toxicity, cancer	CTUh	3,48E-09	3,36E-09	4,09E-11	3,06E-11	2,58E-11	6,36E-12	3,38E-12	0	8,16E-12	-1,47E-09
2.5	Ecotoxicity, freshwater	CTUe	4,31E+01	3,99E+01	1,05E+00	4,63E-01	7,09E-01	2,56E-02	9,49E-02	0	8,50E-01	-4,50E+00
2.6	Land use	Pt	1,25E+01	1,00E+01	9,29E-01	1,36E-01	7,36E-01	1,98E-02	8,55E-02	0	5,84E-01	-9,60E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	8,65E-01	8,65E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	1,20E+00	1,10E+00	1,81E-02	6,62E-02	1,31E-02	4,99E-04	1,67E-03	0	4,29E-03	-1,77E+01
3.3	Use of renewable primary energy (tot)	MJ	2,07E+00	1,97E+00	1,81E-02	6,62E-02	1,31E-02	4,99E-04	1,67E-03	0	4,29E-03	-1,77E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,70E+00	1,70E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	2,56E+01	2,19E+01	1,48E+00	8,14E-01	9,65E-01	1,16E-02	1,32E-01	0	2,60E-01	-3,96E+00
3.6	Use of non-renewable primary energy (tot)	MJ	2,73E+01	2,36E+01	1,48E+00	8,14E-01	9,65E-01	1,16E-02	1,32E-01	0	2,60E-01	-3,96E+00
3.7	Use of secondary materials	MJ	4,81E-02	4,81E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	2,84E-02	2,68E-02	2,30E-04	6,28E-04	1,67E-04	2,61E-04	2,08E-05	0	2,76E-04	-1,31E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	1,05E-02	8,58E-03	6,77E-05	5,06E-04	4,77E-05	1,04E-03	6,09E-06	0	2,30E-04	-8,07E-04
4.2	Non-hazardous waste disposed	kg	1,99E+00	7,96E-01	6,42E-02	4,35E-02	5,23E-02	4,55E-02	5,95E-03	0	9,86E-01	-5,37E-02
4.3	Radioactive waste disposed	kg	7,56E-05	5,61E-05	9,58E-06	1,31E-06	6,20E-06	6,07E-08	8,50E-07	0	1,47E-06	-1,47E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	3,06E-02	5,02E-05	0	1,74E-02	0	1,31E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 21 – Environmental impact of 1 kg di Acrisyl Riempitivo Bianco. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL RIEMPITIVO MEDIUM

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	1,34E+00	1,04E+00	7,97E-02	5,67E-02	5,46E-02	4,63E-02	8,17E-03	0	5,46E-02	1,28E+00
1.2	Climate change - Fossil	kg CO_2 eq	1,34E+00	1,04E+00	7,95E-02	5,41E-02	5,45E-02	4,59E-02	8,14E-03	0	5,45E-02	-1,92E-01
1.3	Climate change - Biogenic	kg CO_2 eq	3,88E-03	4,11E-04	1,74E-04	2,55E-03	1,42E-04	4,70E-04	1,97E-05	0	1,06E-04	1,48E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	9,22E-04	8,54E-04	2,89E-05	1,02E-05	2,12E-05	2,82E-07	2,76E-06	0	4,63E-06	-1,17E-03
1.5	Ozone depletion	kg CFC11 eq	1,63E-07	1,19E-07	1,79E-08	8,27E-09	1,24E-08	1,40E-10	1,86E-09	0	3,20E-09	-3,26E-08
1.6	Photochemical ozone formation	kg NMVOC eq	4,87E-03	3,95E-03	4,54E-04	1,00E-04	2,07E-04	1,16E-05	4,43E-05	0	1,06E-04	-1,46E-03
1.7	Acidification	mol H^+ eq	1,37E-02	1,27E-02	5,09E-04	1,62E-04	2,06E-04	8,47E-06	4,08E-05	0	8,78E-05	-1,18E-03
1.8	Eutrophication, freshwater	kg P eq	3,86E-04	3,67E-04	5,13E-06	8,12E-06	4,05E-06	1,50E-07	5,52E-07	0	1,55E-06	-7,15E-05
1.9	Eutrophication, marine	kg N eq	1,40E-03	1,11E-03	1,43E-04	3,11E-05	5,93E-05	1,18E-05	1,42E-05	0	3,04E-05	-3,40E-04
1.10	Eutrophication, terrestrial	mol N eq	1,37E-02	1,06E-02	1,57E-03	3,44E-04	6,46E-04	3,99E-05	1,56E-04	0	3,30E-04	-3,71E-03
1.11	Water use	m^3 depriv.	1,22E+00	1,19E+00	3,22E-03	1,24E-02	2,55E-03	8,92E-03	3,40E-04	0	1,05E-02	-1,18E-01
1.12	Resource use, fossils	MJ	2,12E+01	1,81E+01	1,19E+00	7,48E-01	8,32E-01	1,10E-02	1,24E-01	0	2,45E-01	-3,73E+00
1.13	Resource use, minerals and metals	kg Sb eq	1,50E-05	1,42E-05	2,64E-07	2,57E-07	2,10E-07	2,24E-09	2,96E-08	0	3,42E-08	-1,77E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	1,09E-01	9,33E-02	6,15E-03	3,67E-03	4,42E-03	7,87E-05	6,48E-04	0	1,19E-03	-2,69E-02
2.2	Particulate matter	disease inc.	8,11E-08	6,88E-08	5,40E-09	7,89E-10	3,73E-09	1,01E-10	5,86E-10	0	1,70E-09	-1,67E-08
2.3	Human toxicity, non-cancer	CTUh	1,81E-08	1,59E-08	8,95E-10	3,04E-10	6,41E-10	4,94E-11	9,63E-11	0	2,15E-10	-4,12E-09
2.4	Human toxicity, cancer	CTUh	2,28E-09	2,18E-09	3,43E-11	3,06E-11	2,40E-11	6,48E-12	3,38E-12	0	8,16E-12	-1,49E-09
2.5	Ecotoxicity, freshwater	CTUe	3,23E+01	2,94E+01	8,98E-01	4,63E-01	6,52E-01	2,59E-02	9,49E-02	0	8,49E-01	-4,56E+00
2.6	Land use	Pt	1,03E+01	7,97E+00	8,31E-01	1,36E-01	6,56E-01	1,99E-02	8,55E-02	0	5,84E-01	-9,72E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	8,76E-01	8,76E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	8,09E-01	7,08E-01	1,54E-02	6,62E-02	1,22E-02	5,05E-04	1,67E-03	0	4,29E-03	-1,79E+01
3.3	Use of renewable primary energy (tot)	MJ	1,69E+00	1,58E+00	1,54E-02	6,62E-02	1,22E-02	5,05E-04	1,67E-03	0	4,29E-03	-1,79E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,73E+00	1,73E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	2,10E+01	1,76E+01	1,26E+00	8,14E-01	8,83E-01	1,17E-02	1,32E-01	0	2,60E-01	-4,01E+00
3.6	Use of non-renewable primary energy (tot)	MJ	2,27E+01	1,94E+01	1,26E+00	8,14E-01	8,83E-01	1,17E-02	1,32E-01	0	2,60E-01	-4,01E+00
3.7	Use of secondary materials	MJ	4,88E-02	4,88E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	1,95E-02	1,79E-02	1,99E-04	6,28E-04	1,53E-04	2,64E-04	2,08E-05	0	2,76E-04	-1,32E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	8,17E-03	6,26E-03	5,81E-05	5,06E-04	4,40E-05	1,06E-03	6,09E-06	0	2,30E-04	-8,17E-04
4.2	Non-hazardous waste disposed	kg	1,68E+00	4,98E-01	5,81E-02	4,35E-02	4,64E-02	4,59E-02	5,95E-03	0	9,86E-01	-5,43E-02
4.3	Radioactive waste disposed	kg	6,12E-05	4,37E-05	8,16E-06	1,31E-06	5,67E-06	6,12E-08	8,50E-07	0	1,47E-06	-1,49E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	3,08E-02	5,09E-05	0	1,74E-02	0	1,33E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 22 – Environmental impact of 1 kg di Acrisyl Riempitivo Medium. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL RIEMPITIVO TRASPARENTE

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	9,10E-01	6,19E-01	6,89E-02	5,67E-02	5,39E-02	4,88E-02	8,17E-03	0	5,46E-02	1,38E+00
1.2	Climate change - Fossil	kg CO_2 eq	9,27E-01	6,39E-01	6,87E-02	5,41E-02	5,37E-02	4,83E-02	8,14E-03	0	5,45E-02	-2,05E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-1,77E-02	-2,12E-02	1,60E-04	2,55E-03	1,39E-04	5,04E-04	1,97E-05	0	1,06E-04	1,58E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	7,32E-04	6,69E-04	2,36E-05	1,02E-05	2,11E-05	2,91E-07	2,76E-06	0	4,63E-06	-1,26E-03
1.5	Ozone depletion	kg CFC11 eq	1,31E-07	9,01E-08	1,56E-08	8,27E-09	1,22E-08	1,48E-10	1,86E-09	0	3,20E-09	-3,47E-08
1.6	Photochemical ozone formation	kg NMVOC eq	3,08E-03	2,30E-03	3,18E-04	1,00E-04	2,05E-04	1,22E-05	4,43E-05	0	1,06E-04	-1,56E-03
1.7	Acidification	mol H^+ eq	4,19E-03	3,36E-03	3,29E-04	1,62E-04	2,03E-04	8,89E-06	4,08E-05	0	8,78E-05	-1,26E-03
1.8	Eutrophication, freshwater	kg P eq	2,47E-04	2,28E-04	4,58E-06	8,12E-06	3,96E-06	1,55E-07	5,52E-07	0	1,55E-06	-7,65E-05
1.9	Eutrophication, marine	kg N eq	8,25E-04	5,81E-04	9,69E-05	3,11E-05	5,86E-05	1,27E-05	1,42E-05	0	3,04E-05	-3,64E-04
1.10	Eutrophication, terrestrial	mol N eq	8,51E-03	5,94E-03	1,06E-03	3,44E-04	6,38E-04	4,19E-05	1,56E-04	0	3,30E-04	-3,98E-03
1.11	Water use	m^3 depriv.	6,47E-01	6,09E-01	2,87E-03	1,24E-02	2,51E-03	8,92E-03	3,40E-04	0	1,05E-02	-1,27E-01
1.12	Resource use, fossils	MJ	1,72E+01	1,42E+01	1,04E+00	7,48E-01	8,21E-01	1,15E-02	1,24E-01	0	2,45E-01	-3,98E+00
1.13	Resource use, minerals and metals	kg Sb eq	1,04E-05	9,59E-06	2,38E-07	2,57E-07	2,01E-07	2,35E-09	2,96E-08	0	3,42E-08	-1,89E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	8,34E-02	6,81E-02	5,40E-03	3,67E-03	4,35E-03	8,20E-05	6,48E-04	0	1,19E-03	-2,87E-02
2.2	Particulate matter	disease inc.	3,82E-08	2,65E-08	4,80E-09	7,89E-10	3,72E-09	1,06E-10	5,86E-10	0	1,69E-09	-1,78E-08
2.3	Human toxicity, non-cancer	CTUh	1,25E-08	1,04E-08	8,00E-10	3,04E-10	6,32E-10	5,17E-11	9,63E-11	0	2,15E-10	-4,42E-09
2.4	Human toxicity, cancer	CTUh	6,39E-10	5,38E-10	2,87E-11	3,06E-11	2,35E-11	6,80E-12	3,38E-12	0	8,16E-12	-1,60E-09
2.5	Ecotoxicity, freshwater	CTUe	1,76E+01	1,48E+01	7,91E-01	4,63E-01	6,42E-01	2,69E-02	9,49E-02	0	8,49E-01	-4,87E+00
2.6	Land use	Pt	7,89E+00	5,65E+00	7,47E-01	1,36E-01	6,65E-01	2,11E-02	8,55E-02	0	5,83E-01	-1,04E+02

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	9,39E-01	9,39E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	3,69E-01	2,71E-01	1,38E-02	6,62E-02	1,20E-02	5,28E-04	1,67E-03	0	4,29E-03	-1,92E+01
3.3	Use of renewable primary energy (tot)	MJ	1,31E+00	1,21E+00	1,38E-02	6,62E-02	1,20E-02	5,28E-04	1,67E-03	0	4,29E-03	-1,92E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,85E+00	1,85E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	1,66E+01	1,34E+01	1,10E+00	8,14E-01	8,71E-01	1,23E-02	1,32E-01	0	2,60E-01	-4,27E+00
3.6	Use of non-renewable primary energy (tot)	MJ	1,84E+01	1,52E+01	1,10E+00	8,14E-01	8,71E-01	1,23E-02	1,32E-01	0	2,60E-01	-4,27E+00
3.7	Use of secondary materials	MJ	5,22E-02	5,22E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	6,43E-03	4,91E-03	1,77E-04	6,28E-04	1,52E-04	2,66E-04	2,08E-05	0	2,76E-04	-1,41E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	4,19E-03	2,24E-03	5,13E-05	5,06E-04	4,34E-05	1,12E-03	6,09E-06	0	2,30E-04	-8,75E-04
4.2	Non-hazardous waste disposed	kg	1,27E+00	8,45E-02	5,25E-02	4,35E-02	4,70E-02	4,88E-02	5,95E-03	0	9,85E-01	-5,83E-02
4.3	Radioactive waste disposed	kg	4,75E-05	3,11E-05	7,10E-06	1,31E-06	5,59E-06	6,44E-08	8,50E-07	0	1,47E-06	-1,58E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	3,17E-02	5,45E-05	0	1,74E-02	0	1,42E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 23 – Environmental impact of 1 kg di Acrisyl Riempitivo Trasparente. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL RIEMPITIVO DEEP

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	1,18E+00	8,80E-01	6,89E-02	5,67E-02	5,84E-02	4,88E-02	8,17E-03	0	5,46E-02	1,38E+00
1.2	Climate change - Fossil	kg CO_2 eq	1,18E+00	8,90E-01	6,87E-02	5,41E-02	5,82E-02	4,83E-02	8,14E-03	0	5,45E-02	-2,05E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-7,23E-03	-1,07E-02	1,60E-04	2,55E-03	1,47E-04	5,04E-04	1,97E-05	0	1,06E-04	1,58E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	8,67E-04	8,01E-04	2,36E-05	1,02E-05	2,35E-05	2,91E-07	2,76E-06	0	4,63E-06	-1,26E-03
1.5	Ozone depletion	kg CFC11 eq	1,51E-07	1,09E-07	1,56E-08	8,27E-09	1,32E-08	1,48E-10	1,86E-09	0	3,20E-09	-3,47E-08
1.6	Photochemical ozone formation	kg NMVOC eq	4,17E-03	3,32E-03	3,18E-04	1,00E-04	2,61E-04	1,22E-05	4,43E-05	0	1,06E-04	-1,56E-03
1.7	Acidification	mol H^+ eq	9,64E-03	8,73E-03	3,29E-04	1,62E-04	2,81E-04	8,89E-06	4,08E-05	0	8,78E-05	-1,26E-03
1.8	Eutrophication, freshwater	kg P eq	3,34E-04	3,15E-04	4,58E-06	8,12E-06	4,23E-06	1,55E-07	5,52E-07	0	1,55E-06	-7,65E-05
1.9	Eutrophication, marine	kg N eq	1,16E-03	8,92E-04	9,69E-05	3,11E-05	7,79E-05	1,27E-05	1,42E-05	0	3,04E-05	-3,64E-04
1.10	Eutrophication, terrestrial	mol N eq	1,15E-02	8,71E-03	1,06E-03	3,44E-04	8,52E-04	4,19E-05	1,56E-04	0	3,30E-04	-3,98E-03
1.11	Water use	m^3 depriv.	1,00E+00	9,63E-01	2,87E-03	1,24E-02	2,65E-03	8,92E-03	3,40E-04	0	1,05E-02	-1,27E-01
1.12	Resource use, fossils	MJ	2,04E+01	1,73E+01	1,04E+00	7,48E-01	8,83E-01	1,15E-02	1,24E-01	0	2,45E-01	-3,98E+00
1.13	Resource use, minerals and metals	kg Sb eq	1,34E-05	1,26E-05	2,38E-07	2,57E-07	2,19E-07	2,35E-09	2,96E-08	0	3,42E-08	-1,89E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	1,02E-01	8,68E-02	5,40E-03	3,67E-03	4,67E-03	8,20E-05	6,48E-04	0	1,19E-03	-2,87E-02
2.2	Particulate matter	disease inc.	6,19E-08	5,00E-08	4,80E-09	7,89E-10	3,89E-09	1,06E-10	5,86E-10	0	1,69E-09	-1,78E-08
2.3	Human toxicity, non-cancer	CTUh	1,58E-08	1,37E-08	8,00E-10	3,04E-10	6,68E-10	5,17E-11	9,63E-11	0	2,15E-10	-4,42E-09
2.4	Human toxicity, cancer	CTUh	1,55E-09	1,45E-09	2,87E-11	3,06E-11	2,62E-11	6,80E-12	3,38E-12	0	8,16E-12	-1,60E-09
2.5	Ecotoxicity, freshwater	CTUe	2,58E+01	2,29E+01	7,91E-01	4,63E-01	6,87E-01	2,69E-02	9,49E-02	0	8,49E-01	-4,87E+00
2.6	Land use	Pt	9,15E+00	6,90E+00	7,47E-01	1,36E-01	6,76E-01	2,11E-02	8,55E-02	0	5,83E-01	-1,04E+02

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	9,39E-01	9,39E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	5,92E-01	4,93E-01	1,38E-02	6,62E-02	1,28E-02	5,28E-04	1,67E-03	0	4,29E-03	-1,92E+01
3.3	Use of renewable primary energy (tot)	MJ	1,53E+00	1,43E+00	1,38E-02	6,62E-02	1,28E-02	5,28E-04	1,67E-03	0	4,29E-03	-1,92E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,85E+00	1,85E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	2,00E+01	1,67E+01	1,10E+00	8,14E-01	9,37E-01	1,23E-02	1,32E-01	0	2,60E-01	-4,27E+00
3.6	Use of non-renewable primary energy (tot)	MJ	2,18E+01	1,86E+01	1,10E+00	8,14E-01	9,37E-01	1,23E-02	1,32E-01	0	2,60E-01	-4,27E+00
3.7	Use of secondary materials	MJ	5,22E-02	5,22E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	1,34E-02	1,19E-02	1,77E-04	6,28E-04	1,60E-04	2,66E-04	2,08E-05	0	2,76E-04	-1,41E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	6,23E-03	4,28E-03	5,13E-05	5,06E-04	4,61E-05	1,12E-03	6,09E-06	0	2,30E-04	-8,75E-04
4.2	Non-hazardous waste disposed	kg	1,50E+00	3,13E-01	5,25E-02	4,35E-02	4,74E-02	4,88E-02	5,95E-03	0	9,85E-01	-5,83E-02
4.3	Radioactive waste disposed	kg	5,69E-05	4,01E-05	7,10E-06	1,31E-06	6,02E-06	6,44E-08	8,50E-07	0	1,47E-06	-1,58E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	3,17E-02	5,45E-05	0	1,74E-02	0	1,42E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 24 – Environmental impact of 1 kg di Acrisyl Riempitivo Deep. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL FONDO FINITURA BIANCO

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	1,16E+00	8,72E-01	6,76E-02	5,67E-02	6,01E-02	4,24E-02	8,17E-03	0	5,46E-02	1,18E+00
1.2	Climate change - Fossil	kg CO_2 eq	1,16E+00	8,74E-01	6,75E-02	5,41E-02	5,99E-02	4,23E-02	8,14E-03	0	5,45E-02	-1,77E-01
1.3	Climate change - Biogenic	kg CO_2 eq	1,14E-03	-1,93E-03	1,60E-04	2,55E-03	1,45E-04	9,27E-05	1,97E-05	0	1,06E-04	1,36E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	8,41E-04	7,75E-04	2,31E-05	1,02E-05	2,53E-05	2,45E-07	2,76E-06	0	4,64E-06	-1,08E-03
1.5	Ozone depletion	kg CFC11 eq	1,70E-07	1,28E-07	1,53E-08	8,27E-09	1,31E-08	1,31E-10	1,86E-09	0	3,20E-09	-3,04E-08
1.6	Photochemical ozone formation	kg NMVOC eq	4,11E-03	3,38E-03	2,95E-04	1,00E-04	1,71E-04	1,07E-05	4,43E-05	0	1,06E-04	-1,35E-03
1.7	Acidification	mol H^+ eq	1,39E-02	1,32E-02	2,98E-04	1,62E-04	1,91E-04	7,77E-06	4,08E-05	0	8,79E-05	-1,09E-03
1.8	Eutrophication, freshwater	kg P eq	3,46E-04	3,26E-04	4,54E-06	8,12E-06	4,85E-06	1,30E-07	5,52E-07	0	1,55E-06	-6,61E-05
1.9	Eutrophication, marine	kg N eq	1,17E-03	9,54E-04	8,92E-05	3,11E-05	4,49E-05	1,06E-05	1,42E-05	0	3,04E-05	-3,14E-04
1.10	Eutrophication, terrestrial	mol N eq	1,12E-02	8,82E-03	9,75E-04	3,44E-04	4,88E-04	3,67E-05	1,56E-04	0	3,31E-04	-3,43E-03
1.11	Water use	m^3 depriv.	1,09E+00	1,05E+00	2,81E-03	1,24E-02	2,94E-03	6,87E-03	3,40E-04	0	1,05E-02	-1,09E-01
1.12	Resource use, fossils	MJ	1,81E+01	1,51E+01	1,02E+00	7,48E-01	8,92E-01	1,01E-02	1,24E-01	0	2,45E-01	-3,46E+00
1.13	Resource use, minerals and metals	kg Sb eq	1,15E-05	1,07E-05	2,41E-07	2,57E-07	2,49E-07	2,03E-09	2,96E-08	0	3,43E-08	-1,64E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	1,12E-01	9,68E-02	5,31E-03	3,67E-03	4,43E-03	6,95E-05	6,48E-04	0	1,19E-03	-2,49E-02
2.2	Particulate matter	disease inc.	6,76E-08	5,62E-08	4,67E-09	7,89E-10	3,66E-09	9,33E-11	5,86E-10	0	1,70E-09	-1,54E-08
2.3	Human toxicity, non-cancer	CTUh	2,23E-08	2,02E-08	7,88E-10	3,04E-10	6,76E-10	4,44E-11	9,63E-11	0	2,15E-10	-3,81E-09
2.4	Human toxicity, cancer	CTUh	2,16E-09	2,05E-09	2,81E-11	3,06E-11	2,70E-11	5,92E-12	3,38E-12	0	8,17E-12	-1,37E-09
2.5	Ecotoxicity, freshwater	CTUe	3,09E+01	2,80E+01	7,79E-01	4,63E-01	7,52E-01	2,33E-02	9,49E-02	0	8,50E-01	-4,22E+00
2.6	Land use	Pt	9,54E+00	7,37E+00	7,14E-01	1,36E-01	6,30E-01	1,88E-02	8,55E-02	0	5,84E-01	-8,95E+01

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	8,05E-01	8,05E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	8,51E-01	7,52E-01	1,37E-02	6,62E-02	1,25E-02	4,44E-04	1,67E-03	0	4,29E-03	-1,65E+01
3.3	Use of renewable primary energy (tot)	MJ	1,66E+00	1,56E+00	1,37E-02	6,62E-02	1,25E-02	4,44E-04	1,67E-03	0	4,29E-03	-1,65E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,59E+00	1,59E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	1,78E+01	1,46E+01	1,08E+00	8,14E-01	9,47E-01	1,07E-02	1,32E-01	0	2,60E-01	-3,72E+00
3.6	Use of non-renewable primary energy (tot)	MJ	1,94E+01	1,62E+01	1,08E+00	8,14E-01	9,47E-01	1,07E-02	1,32E-01	0	2,60E-01	-3,72E+00
3.7	Use of secondary materials	MJ	4,49E-02	4,49E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	1,65E-02	1,50E-02	1,72E-04	6,28E-04	1,62E-04	2,07E-04	2,08E-05	0	2,77E-04	-1,23E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	5,24E-03	3,41E-03	5,04E-05	5,06E-04	7,04E-05	9,69E-04	6,09E-06	0	2,30E-04	-7,53E-04
4.2	Non-hazardous waste disposed	kg	1,64E+00	4,68E-01	4,98E-02	4,35E-02	4,34E-02	4,30E-02	5,95E-03	0	9,86E-01	-5,01E-02
4.3	Radioactive waste disposed	kg	5,77E-05	4,11E-05	6,97E-06	1,31E-06	5,92E-06	5,64E-08	8,50E-07	0	1,47E-06	-1,39E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	2,97E-02	4,68E-05	0	1,74E-02	0	1,22E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 25 – Environmental impact of 1 kg di Acrisyl Fondo Finitura Bianco. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

ACRISYL FONDO FINITURA TRASPARENTE

N°		Unità di misura	Totale	A1	A2	A3	A4	A5	C2	C3	C4	Modulo D
1	**Core impact categories**											
1.1	Climate change - Total	kg CO_2 eq	9,73E-01	6,53E-01	6,94E-02	5,67E-02	8,18E-02	4,91E-02	8,17E-03	0	5,46E-02	1,34E+00
1.2	Climate change - Fossil	kg CO_2 eq	9,84E-01	6,68E-01	6,92E-02	5,41E-02	8,15E-02	4,86E-02	8,14E-03	0	5,45E-02	-2,00E-01
1.3	Climate change - Biogenic	kg CO_2 eq	-1,20E-02	-1,56E-02	1,64E-04	2,55E-03	2,14E-04	4,89E-04	1,97E-05	0	1,06E-04	1,54E+00
1.4	Climate change - Land use and LU change	kg CO_2 eq	8,09E-04	7,36E-04	2,37E-05	1,02E-05	3,09E-05	2,70E-07	2,76E-06	0	4,63E-06	-1,22E-03
1.5	Ozone depletion	kg CFC11 eq	1,57E-07	1,10E-07	1,57E-08	8,27E-09	1,84E-08	1,43E-10	1,86E-09	0	3,20E-09	-3,39E-08
1.6	Photochemical ozone formation	kg NMVOC eq	3,32E-03	2,42E-03	3,02E-04	1,00E-04	3,43E-04	1,21E-05	4,43E-05	0	1,06E-04	-1,52E-03
1.7	Acidification	mol H^+ eq	6,61E-03	5,67E-03	3,05E-04	1,62E-04	3,36E-04	8,78E-06	4,08E-05	0	8,78E-05	-1,23E-03
1.8	Eutrophication, freshwater	kg P eq	2,76E-04	2,55E-04	4,65E-06	8,12E-06	6,00E-06	1,45E-07	5,52E-07	0	1,55E-06	-7,46E-05
1.9	Eutrophication, marine	kg N eq	9,51E-04	6,68E-04	9,14E-05	3,11E-05	1,04E-04	1,22E-05	1,42E-05	0	3,04E-05	-3,55E-04
1.10	Eutrophication, terrestrial	mol N eq	9,49E-03	6,49E-03	9,99E-04	3,44E-04	1,13E-03	4,17E-05	1,56E-04	0	3,30E-04	-3,88E-03
1.11	Water use	m^3 depriv.	6,90E-01	6,53E-01	2,89E-03	1,24E-02	3,62E-03	7,28E-03	3,40E-04	0	1,05E-02	-1,23E-01
1.12	Resource use, fossils	MJ	1,66E+01	1,32E+01	1,05E+00	7,48E-01	1,23E+00	1,10E-02	1,24E-01	0	2,45E-01	-3,88E+00
1.13	Resource use, minerals and metals	kg Sb eq	1,08E-05	9,85E-06	2,47E-07	2,57E-07	3,38E-07	2,26E-09	2,96E-08	0	3,42E-08	-1,85E-06
2	**Additional impact categories**											
2.1	Ionising radiation	kBq U-235 eq	9,73E-02	7,97E-02	5,45E-03	3,67E-03	6,56E-03	7,58E-05	6,48E-04	0	1,19E-03	-2,80E-02
2.2	Particulate matter	disease inc.	4,62E-08	3,29E-08	4,79E-09	7,89E-10	5,38E-09	1,04E-10	5,86E-10	0	1,69E-09	-1,74E-08
2.3	Human toxicity, non-cancer	CTUh	2,03E-08	1,79E-08	8,09E-10	3,04E-10	9,51E-10	5,12E-11	9,63E-11	0	2,15E-10	-4,31E-09
2.4	Human toxicity, cancer	CTUh	1,10E-09	9,85E-10	2,89E-11	3,06E-11	3,64E-11	6,81E-12	3,38E-12	0	8,16E-12	-1,56E-09
2.5	Ecotoxicity, freshwater	CTUe	2,39E+01	2,07E+01	7,99E-01	4,63E-01	9,67E-01	2,65E-02	9,49E-02	0	8,49E-01	-4,75E+00
2.6	Land use	Pt	8,85E+00	6,45E+00	7,32E-01	1,36E-01	8,37E-01	2,03E-02	8,55E-02	0	5,84E-01	-1,02E+02

3	**Resource use**											
3.1	Use of renewable primary energy (mat.)	MJ	9,14E-01	9,14E-01	0	0	0	0	0	0	0	0
3.2	Use of renewable primary energy (ener.)	MJ	5,90E-01	4,85E-01	1,41E-02	6,62E-02	1,83E-02	4,91E-04	1,67E-03	0	4,29E-03	-1,87E+01
3.3	Use of renewable primary energy (tot)	MJ	1,50E+00	1,40E+00	1,41E-02	6,62E-02	1,83E-02	4,91E-04	1,67E-03	0	4,29E-03	-1,87E+01
3.4	Use of non-renewable primary energy (mat)	MJ	1,80E+00	1,80E+00	0	0	0	0	0	0	0	0
3.5	Use of non-renewable primary energy (en)	MJ	1,60E+01	1,23E+01	1,11E+00	8,14E-01	1,31E+00	1,18E-02	1,32E-01	0	2,60E-01	-4,17E+00
3.6	Use of non-renewable primary energy (tot)	MJ	1,78E+01	1,41E+01	1,11E+00	8,14E-01	1,31E+00	1,18E-02	1,32E-01	0	2,60E-01	-4,17E+00
3.7	Use of secondary materials	MJ	5,09E-02	5,09E-02	0	0	0	0	0	0	0	0
3.8	Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.9	Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0
3.10	Net use of fresh water	m^3	9,71E-03	8,17E-03	1,77E-04	6,28E-04	2,13E-04	2,21E-04	2,08E-05	0	2,76E-04	-1,38E-03
4	**Waste categories**											
4.1	Hazardous waste disposed	kg	4,54E-03	2,55E-03	5,17E-05	5,06E-04	6,38E-05	1,13E-03	6,09E-06	0	2,30E-04	-8,53E-04
4.2	Non-hazardous waste disposed	kg	1,38E+00	1,91E-01	5,11E-02	4,35E-02	5,78E-02	4,71E-02	5,95E-03	0	9,85E-01	-5,68E-02
4.3	Radioactive waste disposed	kg	5,27E-05	3,35E-05	7,16E-06	1,31E-06	8,41E-06	6,13E-08	8,50E-07	0	1,47E-06	-1,55E-05
5	**Output flows**											
5.1	Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
5.2	Exported energy	kg	3,13E-02	5,31E-05	0	1,74E-02	0	1,39E-02	0	0	0	0
5.3	Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
5.4	Exported energy	MJ	0	0	0	0	0	0	0	0	0	0

Table 26 – Environmental impact of 1 kg di Acrisyl Fondo Finitura Trasparente. Life cycle phases not evaluated: B1-B2-B3-B4-B5-C1.

5. Differences versus previous EPD versions

Revision 2020-12-23

Compared to the previous version of this EPD, the data relating to company consumption, the procurement of raw materials and the distribution of products have been updated and refer to the year 2019, except for the Rustico Trasparente and Intonachino g.ff. transparent, for which 2017 data were used. The two new products Acrisyl KP 1,2 Bianco and Trasparente were added. The reference database, ecoinvent, has been updated to version 3.6. The General Program Instructions followed for this EPD are version 3.01 [9], while the PCRs currently valid are PCR 2019: 14 v1.1.

Revisione 2021-12-29

Compared to the previous version of this EPD, the ecoinvent database and the SimaPro software were respectively updated to version 3.7 and 9.2. Data related to company consumption, raw materials and products distribution were updated to the reference year 2020 with consequent variations of the environmental indicators (>10%). The PCR currently valid is PCR 2019:14 v1.11.

6. Additional environmental information

The products Acrisyl Liscio (version White, Medium, Deep, Transparent), Acrisyl KP 1,5 (version White, Transparent), Acrisyl KP 1,2 (version White, Transparent), Acrisyl Intonachino (version White, Transparent), Acrisyl KP 1,8 (version White, Transparent), Acrisyl Intonachino Grana Finissima (version White, Transparent), Acrisyl KP 1 (version White, Transparent), Acrisyl Riempitivo (version White, Medium, Deep, Transparent) e Acrisyl Fondo Finitura (version White, Transparent) comply with ecological and performance criteria required by 2014/312/UE Decision as requested by D.M. 11/1/2017 “Adozione dei criteri ambientali minimi per gli arredi per interni, per l'edilizia e per i prodotti tessili”. All information concerning the criteria satisfaction are available in the related documentation.

7. Information about the company and the certifying body

7.1 San Marco Group SpA contact information

The Life Cycle Assessment (LCA) study and this Environmental Product Declaration (EPD) were created by the Product Safety Department of San Marco Group SpA, in collaboration with 2B Srl (www.to-be.it). The company contact details are:

San Marco Group SpA

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7.2 Verification and registration

Programme operator: EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden, E-mail: info@environdec.com

Comparisons between EPDs for construction products and services shall be done carefully, because of the possible variations in system boundaries and data sources used. Therefore EPDs belonging to the same product category, but originating from different EDP programmes, may not be comparable. In particular, EPDs that do not meet the comparability requirements set in the standard EN 15804:2012+A2, are not comparable.

San Marco Group SpA is the exclusive owner of the EPD and is responsible for its content.

ISO standard ISO 21930 and CEN standard EN 15804 serves as the core Product Category Rules (PCR)
Product category rules (PCR): PCR 2019:14 Construction products, version 1.11
PCR review was conducted by: The Technical Committee of the International EPD® System. See www.environdec.com/TC for a list of members. Review chair: Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact.
Independent third-party verification of the declaration and data, according to ISO 14025:2006: □ External **X** Internal About: **X** EPD process certification □ EPD Verification
Third part verifier: *DNV GL Business Assurance – Venezia* *Via Bruno Maderna, 7, 30174 Venezia VE* *041 506 0655* Accredited by: Accredia
Procedure for follow-up during EPD validity involves third party verifier? **X** Yes □ No

8. Bibliografia

[1] San Marco Group SpA (www.sanmarcogroup.it).

[2] PCR 2019:14 v1.11. “Construction products”. Product Category Rules (PCR) for preparing an environmental product declaration (EPD) for construction products and construction services, the Swedish Environmental Management Council (www.environdec.com).

[3] UNI EN 15804:2012+A2, 2019: Sostenibilità delle costruzioni - Dichiarazioni ambientali di prodotto - Regole quadro di sviluppo per categoria di prodotto, Ente Nazionale Italiano di Unificazione.

[4] ISO 14025. Environmental labels and declarations, type 3 environmental declarations, principles and procedures (www.iso.org).

[5] ISO 14040/14044:2021. ISO series on Life Cycle Assessment (Valutazione del ciclo di vita), UNI EN ISO 14040:2006 e 14044:2006 (www.iso.org).

[6] Ecoinvent, 2021. Swiss Centre for Life Cycle Assessment, v3.7 (www.ecoinvent.ch).

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[8] Istituto Superiore per la Protezione e la Ricerca Ambientale, 2020. Rapporto Rifiuti Urbani Edizione 2020 (www.isprambiente.gov.it).

[9] General Programme Instructions for the International EPD® System. Version 3.01, dated 2019-09-18 (www.environdec.com).