



) david trubridge

Environmental Product Declaration Kitset Pendant Light Fittings

Beau • Belle • Basket of light (BOL) • Coral • Dunes • Flax • Floral • Hills • Hinaki • Kina • Koura • Maru • Navicula • Nikau • Pebbles • Pola • Snowflake • Sola • Sunflower • Ulu

Environmental Product Declaration (EPD) in accordance with ISO 14025 and EN 15804

EPD programme operator: EPD Australasia Limited, www.epd-australasia.com

Manufacturer: David Trubridge Limited, www.davidtrubridge.com

EPD registration number S-P-00556 | Version 2 | Issued 2 October 2020 | Valid until 2 October 2025

Geographical scope: Global

General information:

An Environmental Product Declaration, or EPD, is a standardised and verified way of quantifying the environmental impacts of a product based on a consistent set of rules known as a PCR (Product Category Rules).

Environmental product declarations within the same product category from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804.



Declaration owner:



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CEN standard EN 15804 served as the core PCR

PCR: PCR 2012:01 Construction products and Construction services, Version 2.33, 2020-09-18

PCR review was conducted by: The Technical Committee of the International EPD® System.
Chair: Massimo Marino. Contact via info@environdec.com.

Independent verification of the declaration and data, according to ISO 14025:

EPD process certification (Internal)
 EPD verification (External)

Third party verifier:



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Approved by:

EPD Australasia



Nikau pendant light pictured next to a nīkau palm

Who we are

David Trubridge is a designer and manufacturer of premium lighting and furniture products operating from Whakatu, Hastings, New Zealand. For us, good design means bringing cultural nourishment into people's lives without using up precious resources and energy. As a result, all of our products are designed to leave a delicate footprint and most are inspired directly by nature (illustrated by the Nikau light above).

















Life Cycle Assessment (LCA) is a key way in which we quantify the footprint of our products. We also use LCA to influence key business decisions, such as our initiative to convert the vast majority of our products to flat-pack designs in order to reduce environmental impacts from packaging and distribution.

Our values

- In all management, design and manufacturing operations to consider and minimise our impact on the environment, people and future generations, leaving a delicate footprint at all times.
- To be absolutely open and honest about our environmental performance.
- Our mission is to create and pass on culture, layering ideas and emotions onto physical objects.
- Everything that we produce is made to the highest possible standards of craftsmanship and materials, designed to last a maximum lifespan with no regard to ephemeral fashion, and to be finally easily recycled or safely disposed of.
- To act ethically, and with respect and integrity, in all dealings with people.
- To promote a culture of direct personal openness, honesty and integrity, which is never deflected or subverted by spin, artifice or deceit.
- To make sure everyone in the company maintains a good balance between their work and their life; that they are happy, sufficiently rewarded and fulfilled in their work; that they can take time off whenever they wish as long as deadline commitments are kept; that there is a sense of community support between everyone in the team.
- To never stand still, always re-evaluating and reassessing goals and achievements whether they be design, environmental or personal.
- To always help each other maintain the highest standards of design and making.
- The company's cultural, artistic, social and environmental roles are all more important than increasing profit.
- To seek to promote our values, particularly environmental concerns, at all times, in personal interchanges and through exhibitions, lectures and written information.
- To aim to be a role model for other businesses to follow.

Products covered by this EPD

This EPD covers permanently wired David Trubridge indoor pendant lights manufactured from bamboo and birch (Basket of Light only) plywood. It includes all size variants and surface finishes for the product families shown below.

Style (sizes)				
	Belle (2 sizes)	Coral (6 sizes)	Floral (6 sizes)	Sola (3 sizes)
				
	Hinaki (3 sizes)	Koura (6 sizes)	Nikau* (2 sizes)	Ulu** (2 sizes)
				
	Beau (2 sizes)	Flax (2 sizes)	Kina (5 sizes)	Snowflake (2 sizes)**
				
	Pola (2 sizes)	Dunes	Hills	Pebbles



Maru*** (2 sizes)



Sunflower (2 sizes)



Navicula*** (3 sizes)



Basket of light – Crystal****



Basket of light - Leaf ****



Basket of light – Wave****



Natural



Caramel



Paint (1 side)



Paint (2 sides)

* Nikau pictured at half height. Ulu pictured at full height. Both are available at half or full height.

**Snowflake comes in three sizes but the largest size is excluded in the EPD as it's not commonly sold (one sold every two years)

***Navicula and Maru are different to previous designs. They have LEDs, an LED driver manufactured by Tridonic, aluminium heatsinks behind the LEDs and polycarbonate diffusers. They are otherwise like the existing products.

**** BOL are otherwise like the existing products with the exception of using birch plywood from Finland.

CPC code: There is no CPC code that unambiguously applies to wooden pendant light fittings and, as such, no CPC code is listed on this EPD.

Product group: All pendant lights are supplied with an electrical cable, but without a wall plug. They are designed for permanent installation by a qualified electrician. Once installed, they provide lighting – a basic requirement for any building. As such, they meet the two core criteria defined in PCR 2012:01 (permanence + contributing to the basic requirements of construction works) and can be considered as a construction product rather than a non-permanent product (e.g. furniture).

Products declared: This EPD declares results separately for painted products as the surface finishes are environmentally relevant. Painted products are available in single-sided colour/white/black or double-sided white/black. The caramel finish is not a surface coating, but rather the result of carbonisation through thermal treatment of the bamboo plywood by the plywood supplier.

Declared unit

The declared unit is 1 piece of light fitting / fixture / luminaire as specified in the table below. All product masses below include packaging. The mass of packaging is listed separately in the rightmost column. The biogenic carbon stored within the product and packaging is also declared in the table. Not all lights are made in all finishes (noted with N/A throughout this document). Beau and Belle products are only in natural and caramel; Dunes, Hills and Pebbles are only in natural; and BOL products are only in natural (birch).

This is a cradle-to-gate EPD and excludes use of the light. As all products can be fitted with any type of lightbulb / lamp (incandescent, LED, CFL, etc.), the bulb itself is not included within the declared unit.

Style & size	Dimensions mm	Stored carbon kg CO ₂ e	Mass (kg)					Of which packaging
			Natural & caramel	Colour and white, 1 side	White, 2 sides	Black, 1 side	Black, 2 sides	
Beau Small	600 dia x 280 h	0.30	0.99	N/A	N/A	N/A	N/A	0.17
Beau Large	750 dia x 360 h	0.51	1.50	N/A	N/A	N/A	N/A	0.22
Belle Small	380 dia x 330 h	0.18	0.72	N/A	N/A	N/A	N/A	0.17
Belle Large	500 dia x 430 h	0.31	1.05	N/A	N/A	N/A	N/A	0.22
Coral 400	400 dia	0.09	0.70	0.87	1.04	0.87	1.04	0.35
Coral 600	600 dia	0.34	1.43	1.74	2.06	1.74	2.04	0.51
Coral 800	800 dia	0.60	2.24	2.81	3.38	2.80	3.37	0.73
Coral 1000	1000 dia	0.95	2.93	3.80	4.67	3.78	4.63	0.54
Coral 1200	1200 dia	1.36	3.76	5.00	6.25	4.97	6.17	0.44
Coral 1600	1600 dia	3.57	9.81	11.84	13.88	11.97	14.13	1.31
Flax 800	800 dia x 220 h	0.10	0.71	0.79	1.05	0.81	0.92	0.35
Flax 1500	1500 dia x 325 h	0.35	1.46	1.79	2.11	1.78	2.10	0.51
Floral 400	400 dia	0.61	2.26	2.82	3.37	2.80	3.33	0.73
Floral 600	600 dia	0.96	2.96	3.86	4.75	3.84	4.72	0.54
Floral 800	800 dia	1.38	3.81	5.06	6.32	5.02	6.23	0.44
Floral 1000	1000 dia	3.63	9.92	11.98	14.03	12.10	14.27	1.31
Floral 1200	1200 dia	0.54	2.19	2.67	3.14	2.67	3.15	0.75
Floral 1600	1600 dia	2.91	8.43	10.14	11.85	10.10	11.78	1.43
Hinaki 500	500 h x 170 dia	0.06	0.75	0.85	0.96	0.85	0.96	0.47
Hinaki 900	900 h x 320 dia	0.28	1.21	1.45	1.70	1.45	1.69	0.43
Hinaki 1400	1400 h x 500 dia	1.30	4.12	5.56	6.79	5.60	7.08	0.70
Kina 440	440 dia x 200 h	0.11	0.86	1.02	1.19	1.02	1.18	0.46
Kina 600	600 dia x 280 h	0.35	1.59	1.86	2.14	1.85	2.11	0.62
Kina 800	800 dia x 370 h	0.62	2.36	2.86	3.36	2.85	3.34	0.75
Kina 1000	1000 dia x 420 h	0.97	3.53	4.37	5.20	4.37	5.20	1.03
Kina 1400	1400 dia x 650 h	3.03	8.85	12.84	16.83	12.77	16.68	1.44
Koura 500	500 h x 300 dia	0.11	0.84	1.00	1.16	1.00	1.16	0.46
Koura 750	750 h x 420 dia	0.36	1.74	2.05	2.36	2.05	2.35	0.76
Koura 1000	1000 h x 500 dia	0.67	2.46	3.04	3.62	3.02	3.59	0.76
Koura 1600	1600 h x 950 dia	2.48	8.56	10.15	11.74	10.33	12.11	2.45
Koura 2000	2000 h x 1100 dia	3.71	11.94	14.02	16.09	13.97	16.00	3.10
Koura 2400	2400 h x 1400 dia	5.00	16.32	18.33	20.33	18.57	20.83	4.60
Nikau Half	405 dia x 820 h	0.30	1.23	1.51	1.79	1.51	1.79	0.34
Nikau Full	405 dia x 1615 h	0.56	1.84	2.36	2.87	2.36	2.89	0.36

Style & size	Dimensions mm	Stored carbon kg CO ₂ e	Mass (kg)					
			Natural & caramel	Colour and white, 1 side	White, 2 sides	Black, 1 side	Black, 2 sides	Of which packaging
Snowflake 800	800 dia x 400 h	0.66	2.59	6.07	8.17	6.19	9.79	0.77
Snowflake 1000	1000 dia x 500 h	1.03	3.68	6.31	8.94	6.26	8.85	1.01
Sola 800	800 dia	0.45	1.68	2.25	2.77	2.24	2.81	0.51
Sola 1000	1000 dia	0.32	1.39	1.76	2.09	1.75	2.11	0.51
Sola 1350	1350 dia	0.65	2.53	3.51	4.15	3.56	4.58	0.75
Ulu Half	400 h x 300 dia	1.03	3.19	5.02	6.08	5.16	7.13	0.55
Ulu Full	650 h x 385 dia	2.89	7.38	9.72	12.06	9.76	12.13	0.49
Dunes	240 h x 255 dia	0.12	0.83	N/A	N/A	N/A	N/A	0.42
Hills	240 h x 255 dia	0.11	0.81	N/A	N/A	N/A	N/A	0.42
Pebbles	240 h x 255 dia	0.12	0.83	N/A	N/A	N/A	N/A	0.42
Maru Small	200 h x 1100 dia	0.89	5.83	6.69	7.55	6.69	7.55	0.81
Maru Large	250 h x 1400 dia	1.52	7.82	9.33	10.84	9.35	10.88	1.04
Navicula Small	570 w x 200 h x 1440 d	0.61	6.50	7.05	7.60	7.12	7.69	2.52
Navicula Medium	900 w x 380 h x 1950 d	1.08	7.97	9.01	10.05	9.10	10.21	2.95
Navicula Large	1000 w x 450 h x 2500 d	2.51	12.74	15.52	18.31	15.48	18.17	4.41
Pola 800	800 dia	0.71	2.32	2.96	3.83	3.09	3.85	0.45
Pola 1000	1000 dia	1.10	3.06	4.11	5.49	4.32	5.59	0.32
Sunflower Small	600 dia x 120 h	0.06	0.26	0.46	0.67	0.47	0.69	0.12
Sunflower Large	900 dia x 180 h	0.21	0.68	0.90	1.13	0.91	1.13	0.20
BOL Crystal	580 dia x 1400 h	0.42	3.38	N/A	N/A	N/A	N/A	2.24
BOL Leaf	580 dia x 1400 h	0.42	3.39	N/A	N/A	N/A	N/A	2.24
BOL Wave	580 dia x 1400 h	0.38	3.30	N/A	N/A	N/A	N/A	2.24

Material composition

Note: The composition of bamboo plywood is 58-78% bamboo, 20-40% polyvinyl acetate (PVA) and 2% emulsion polymer isocyanate (EPI). The electrical cable is approximately 28% copper and 72% flexible polyvinyl chloride (PVC).

Product	Product composition (g)												Coating (g)				Packaging & accessories (g)								Total (g)							
	Bamboo plywood	Birch plywood	Cable, copper + PVC	Chrome plated brass	Polyamide 6.6	Polyamide 6.6, glass filled	PET, glass filled	Steel, carbon	Steel, stainless	Aluminium	Nylon	Other	Total	Paint, colour and white (1 side)	Paint, white (2 sides)	Paint, black (1 side)	Paint, black (2 sides)	Cardboard	MDF	Paper	LDPE	Charcoal sachet	Rubber band	Steel, rivet gun	Plastic cap	Glue stick glue	Total	Natural and caramel	Paint, colour and white (1 side)	Paint, white (2 sides)	Paint, black (1 side)	Paint, black (2 sides)
Beau Small	1,299	-	108	-	5	5	19	-	-	-	5	2	1,443	N/A	N/A	N/A	N/A	115	-	42	1	10	4	-	-	-	172	1,615	N/A	N/A	N/A	N/A
Beau Large	1,900	-	108	-	5	5	19	-	-	-	5	2	2,044	N/A	N/A	N/A	N/A	163	-	42	1	10	4	-	-	-	220	2,263	N/A	N/A	N/A	N/A
Belle Small	879	-	108	-	5	5	19	-	-	-	5	2	1,024	N/A	N/A	N/A	N/A	115	-	42	1	10	4	-	-	-	171	1,195	N/A	N/A	N/A	N/A
Belle Large	1,204	-	108	-	5	5	19	-	-	-	5	2	1,348	N/A	N/A	N/A	N/A	163	-	42	1	10	4	-	-	-	220	1,568	N/A	N/A	N/A	N/A
Coral 400	550	-	108	-	7	4	10	-	-	-	11	1	691	167	334	171	342	300	-	36	1	10	4	-	-	-	351	1,043	1,210	1,377	1,214	1,385
Coral 600	1,746	-	108	-	5	5	19	-	-	-	30	2	1,915	313	627	307	614	456	-	36	1	10	4	-	-	-	507	2,422	2,736	3,049	2,729	3,036
Coral 800	3,156	-	108	-	7	5	19	-	-	-	30	2	3,326	569	1,138	562	1,124	678	-	36	1	10	4	-	-	-	729	4,055	4,624	5,193	4,617	5,179
Coral 1000	4,780	-	162	41	7	5	19	8	-	-	30	16	5,068	871	1,741	849	1,698	482	-	36	5	10	5	-	-	-	539	5,607	6,477	7,348	6,456	7,304
Coral 1200	6,692	-	162	41	7	5	19	8	-	-	30	16	6,980	1,243	2,486	1,205	2,410	386	-	36	5	10	5	-	-	-	443	7,423	8,666	9,909	8,628	9,833
Coral 1600	22,200	-	270	41	7	5	19	8	-	164	-	43	22,757	2,036	4,071	2,162	4,324	1,050	-	36	12	10	3	200	-	-	1,310	24,067	26,103	28,139	26,229	28,391
Floral 400	550	-	108	-	7	4	10	-	-	-	11	1	691	85	341	105	210	300	-	36	1	10	4	-	-	-	351	1,043	1,128	1,383	1,148	1,253
Floral 600	1,825	-	108	-	5	5	19	-	-	-	30	2	1,994	327	654	320	641	456	-	36	1	10	4	-	-	-	507	2,501	2,828	3,155	2,822	3,142
Floral 800	2,931	-	108	-	5	5	19	-	-	-	30	2	3,100	554	1,109	535	1,069	678	-	36	1	10	4	-	-	-	729	3,829	4,383	4,938	4,364	4,898
Floral 1000	5,019	-	162	41	7	5	19	8	-	-	30	17	5,308	894	1,787	877	1,754	482	-	36	5	10	5	-	-	-	539	5,847	6,741	7,634	6,724	7,601
Floral 1200	6,692	-	162	41	7	5	19	8	-	-	30	17	6,981	1,255	2,511	1,214	2,427	386	-	36	5	10	4	-	-	-	442	7,423	8,678	9,934	8,636	9,850
Floral 1600	21,728	-	270	41	7	5	19	8	-	164	-	44	22,286	2,053	4,106	2,174	4,347	1,050	-	36	12	10	1	200	-	-	1,309	23,595	25,648	27,701	25,769	27,942
Flax 800	3,451	-	108	-	5	5	19	-	-	-	108	2	3,698	477	953	483	965	690	-	36	8	10	6	-	-	-	750	4,448	4,925	5,402	4,931	5,414

Product	Product composition (g)												Coating (g)				Packaging & accessories (g)								Total (g)							
	Bamboo plywood	Birch plywood	Cable, copper + PVC	Chrome plated brass	Polyamide 6.6	Polyamide 6.6, glass filled	PET, glass filled	Steel, carbon	Steel, stainless	Aluminium	Nylon	Other	Total	Paint, colour and white (1 side)	Paint, white (2 sides)	Paint, black (1 side)	Paint, black (2 sides)	Cardboard	MDF	Paper	LDPE	Charcoal sachet	Rubber band	Steel, rivet gun	Plastic cap	Glue stick glue	Total	Natural and caramel	Paint, colour and white (1 side)	Paint, white (2 sides)	Paint, black (1 side)	Paint, black (2 sides)
Flax 1500	15,428	-	162	124	5	5	19	-	-	-	184	31	15,958	1,710	3,419	1,672	3,343	1,330	-	24	10	10	8	-	-	43	1,426	17,384	19,093	20,803	19,056	20,727
Hinaki 500	394	-	108	-	7	4	10	-	-	-	10	1	534	103	213	107	213	415	-	36	1	10	3	-	-	-	465	999	1,101	1,212	1,105	1,212
Hinaki 900	1,481	-	108	-	5	5	19	-	-	-	25	2	1,645	244	487	238	476	373	-	38	2	10	4	-	-	-	427	2,072	2,316	2,559	2,310	2,548
Hinaki 1400	8,434	-	270	124	5	5	19	-	-	-	85	31	8,974	1,439	2,666	1,479	2,958	600	-	36	7	10	5	-	-	43	701	9,675	11,114	12,341	11,154	12,633
Kina 440	560	-	108	-	2	4	10	-	-	-	21	1	706	163	325	158	317	415	-	31	1	10	3	-	-	-	461	1,167	1,330	1,492	1,325	1,484
Kina 600	1,715	-	108	-	2	5	19	-	-	-	64	2	1,914	274	548	262	524	564	-	31	7	10	4	-	-	-	616	2,530	2,804	3,078	2,792	3,054
Kina 800	3,554	-	108	-	5	5	19	-	-	-	94	2	3,787	503	1,007	490	980	690	-	36	7	10	6	-	-	-	749	4,537	5,040	5,544	5,027	5,517
Kina 1000	6,034	-	162	41	7	5	19	8	-	-	94	8	6,379	832	1,664	834	1,668	960	-	49	7	10	6	-	-	-	1,032	7,410	8,242	9,074	8,244	9,078
Kina 1400	21,333	-	270	166	5	5	19	-	-	-	182	41	22,021	3,986	7,973	3,915	7,830	1,330	-	41	7	10	8	-	-	43	1,439	23,461	27,447	31,433	27,375	31,290
Koura 500	618	-	108	-	7	4	10	-	-	-	16	1	764	158	316	161	322	415	-	31	1	10	3	-	-	-	460	1,224	1,382	1,540	1,385	1,546
Koura 750	1,891	-	108	-	5	5	19	-	-	-	42	2	2,071	310	620	302	603	710	-	31	1	10	4	-	-	-	757	2,828	3,138	3,448	3,129	3,431
Koura 1000	3,301	-	108	-	5	5	19	-	-	-	61	2	3,502	581	1,162	563	1,127	710	-	36	2	10	6	-	-	-	764	4,266	4,847	5,428	4,829	5,393
Koura 1600	14,197	-	270	124	5	5	19	-	-	-	135	31	14,787	1,590	3,181	1,777	3,553	2,350	-	36	8	10	5	-	-	43	2,452	17,239	18,830	20,420	19,016	20,792
Koura 2000	19,876	-	270	124	5	5	19	-	-	-	135	31	20,465	2,076	4,152	2,029	4,057	3,000	-	36	8	10	5	-	-	43	3,102	23,567	25,643	27,719	25,596	27,624
Koura 2400	28,055	-	270	124	5	5	19	-	-	-	159	31	28,669	2,005	4,010	2,252	4,504	4,500	-	36	7	10	5	-	-	43	4,601	33,271	35,275	37,280	35,522	37,774
Nikau Half	1,748	-	162	-	7	5	19	-	-	-	19	2	1,961	278	555	279	559	302	-	28	1	10	4	-	-	-	345	2,306	2,583	2,861	2,585	2,864
Nikau Full	3,351	-	162	-	7	5	19	-	-	-	33	2	3,578	517	1,034	525	1,050	302	-	42	2	10	4	-	-	-	359	3,938	4,455	4,972	4,462	4,987
Snowflake 800	5,746	-	162	41	7	5	19	8	-	-	103	17	6,107	3,476	5,578	3,599	7,198	690	-	53	8	10	9	-	-	-	769	6,876	10,352	12,454	10,475	14,074
Snowflake 1000	8,532	-	162	41	7	5	19	8	-	-	116	8	8,898	2,631	5,262	2,584	5,167	960	-	36	-	10	8	-	-	-	1,014	9,912	12,543	15,174	12,496	15,079
Ulu Full	2,157	-	108	-	5	5	19	-	-	-	36	2	2,332	576	1,093	565	1,130	456	-	37	6	10	4	-	-	-	513	2,845	3,421	3,939	3,410	3,975
Ulu Half	1,495	-	108	-	5	5	19	-	-	-	36	2	1,670	369	700	360	720	456	-	37	2	10	5	-	-	-	509	2,180	2,549	2,880	2,540	2,900

Product	Product composition (g)												Coating (g)				Packaging & accessories (g)								Total (g)							
	Bamboo plywood	Birch plywood	Cable, copper + PVC	Chrome plated brass	Polyamide 6.6	Polyamide 6.6, glass filled	PET, glass filled	Steel, carbon	Steel, stainless	Aluminium	Nylon	Other	Total	Paint, colour and white (1 side)	Paint, white (2 sides)	Paint, black (1 side)	Paint, black (2 sides)	Cardboard	MDF	Paper	LDPE	Charcoal sachet	Rubber band	Steel, rivet gun	Plastic cap	Glue stick glue	Total	Natural and caramel	Paint, colour and white (1 side)	Paint, white (2 sides)	Paint, black (1 side)	Paint, black (2 sides)
Sola 800	5,475	-	162	41	7	5	19	8	-	-	91	16	5,824	977	1,620	1,027	2,053	678	-	47	8	10	5	-	-	-	747	6,571	7,548	8,191	7,598	8,625
Sola 1000	10,950	-	162	41	7	5	19	8	-	-	91	16	11,299	1,827	2,892	1,970	3,940	482	-	47	8	10	5	-	-	-	551	11,850	13,677	14,743	13,821	15,791
Sola 1350	22,200	-	270	41	7	5	19	8	-	-	110	16	22,676	2,341	4,681	2,373	4,745	420	-	47	8	10	5	-	-	-	490	23,166	25,507	27,847	25,538	27,911
Dunes	596	-	108	-	5	5	19	-	-	-	1	2	736	N/A	N/A	N/A	N/A	360	-	40	2	10	3	-	-	-	415	1,151	N/A	N/A	N/A	N/A
Hills	596	-	108	-	5	5	19	-	-	-	1	2	736	N/A	N/A	N/A	N/A	360	-	40	2	10	3	-	-	-	415	1,151	N/A	N/A	N/A	N/A
Pebbles	596	-	108	-	5	5	19	-	-	-	1	2	736	N/A	N/A	N/A	N/A	360	-	40	2	10	3	-	-	-	415	1,151	N/A	N/A	N/A	N/A
Maru Small	5,147	-	231	-	2	-	-	514	640	1,496	47	336	8,414	859	1,717	860	1,719	789	-	6	4	10	5	-	-	-	814	9,229	10,088	10,946	10,088	10,948
Maru Large	9,447	-	238	-	2	-	-	514	758	1,734	47	336	13,078	1,505	3,011	1,529	3,058	1,017	-	6	4	10	5	-	-	-	1,043	14,121	15,626	17,132	15,649	17,178
Navicula Small	4,270	-	207	-	2	-	-	514	321	1,225	43	537	7,120	551	1,102	576	1,153	2,309	14	135	9	10	3	-	-	43	2,523	9,643	10,194	10,744	10,219	10,795
Navicula Medium	8,066	-	207	-	2	-	-	514	311	1,234	43	534	10,911	1,037	2,074	1,101	2,202	2,780	14	87	9	10	3	-	-	43	2,946	13,857	14,894	15,931	14,958	16,059
Navicula Large	23,432	-	207	-	2	-	-	514	311	1,331	58	553	26,408	2,788	5,575	2,694	5,388	4,246	14	87	9	10	3	-	-	43	4,412	30,819	33,607	36,395	33,513	36,207
Pola 800	6,870	-	162	41	7	5	19	8	-	-	39	16	7,167	646	1,511	768	1,536	385	-	41	6	10	5	-	-	-	447	7,614	8,261	9,125	8,382	9,150
Pola 1000	11,450	-	162	41	7	5	19	8	-	-	39	16	11,747	1,054	2,433	1,266	2,531	253	-	41	6	10	5	-	-	-	316	12,063	13,117	14,496	13,328	14,594
Sunflower Small	362	-	-	-	-	-	-	-	-	-	7	-	369	209	417	217	435	64	-	44	1	10	3	-	-	-	122	492	700	909	709	927
Sunflower Large	1,170	-	-	-	-	-	-	-	-	-	15	-	1,185	223	446	225	451	137	-	44	1	10	4	-	-	-	195	1,380	1,603	1,825	1,605	1,831
BOL Crystal	130	851	162	-	5	5	19	-	-	-	24	2	1,197	N/A	N/A	N/A	N/A	1,924	-	228	-	10	5	-	70	-	2,238	3,435	N/A	N/A	N/A	N/A
BOL Leaf	130	857	162	-	5	5	19	-	-	-	23	2	1,203	N/A	N/A	N/A	N/A	1,924	-	228	-	10	8	-	70	-	2,240	3,443	N/A	N/A	N/A	N/A
BOL Wave	130	777	162	-	5	5	19	-	-	-	14	2	1,114	N/A	N/A	N/A	N/A	1,924	-	228	-	10	4	-	70	-	2,236	3,350	N/A	N/A	N/A	N/A

System boundary

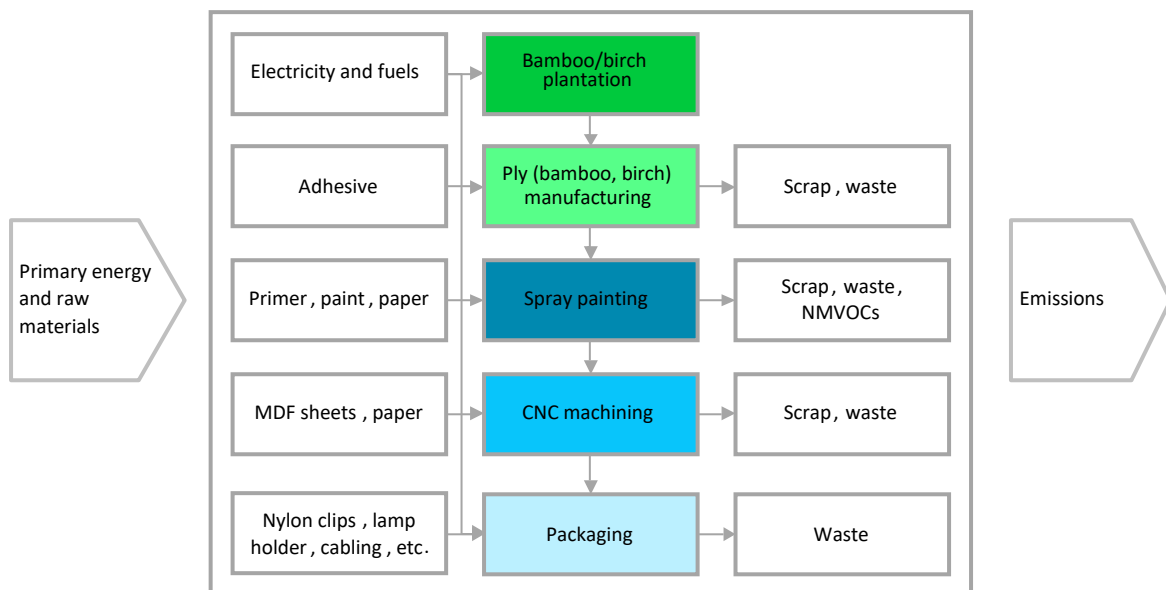
This EPD has a cradle-to-gate scope as shown in the table below. It includes the environmental impacts associated with raw materials, material transport, manufacture, painting (if applicable), packaging and storage. Other life cycle stages are dependent on particular scenarios and best modelled at the building level. To assist the reader, a separate annex with additional data on distribution, installation and end-of-life is available on the David Trubridge website (see “Additional environmental information” on page 39).

Product stage			Construction process stage		Use stage							End of life stage				Benefits and loads beyond the system boundary
Raw material supply	Transport of raw materials	Manufacturing	Transport to customer	Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction / demolition	Transport to waste processing	Waste processing	Disposal	Reuse- Recovery- Recycling- potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

X = included in the EPD; MND = module not declared (such a declaration shall not be regarded as a result of zero)

Manufacturing process

Light fittings are manufactured from bamboo and birch plywood sourced from China and Finland, respectively. The plywood has either a natural or caramel finish (achieved using thermal treatment). It is delivered by sea and truck to our factory in Whakatu, Hastings, New Zealand. It is painted offsite in Hastings (painted products only), and cut to shape onsite using a CNC router. The cut plywood shapes are packed into a kitset box along with additional fittings (e.g. Nylon clips, lamp holder and cabling) ready for shipping. All wood manufacturing scrap is disposed of within New Zealand using incineration with energy recovery.



Life cycle inventory (LCI) data

Primary data were used for all manufacturing operations up to the factory gate, including cutting, drilling, painting, packing and storage. As David Trubridge manufactures low volumes of hundreds of different products – some of which are made to order – there was no straightforward way to allocate the annual inputs and outputs from production to a given product type. Instead, physical measurements taken in the period December 2018 to January 2019 were used to calculate inputs/outputs from the bottom-up. This approach is believed to be more accurate than allocation by mass, volume or economic value.

Data for all energy inputs, transport processes and raw materials (except bamboo plywood) are from GaBi Databases 2020 (Sphera 2020). Most datasets have a reference year between 2016 and 2019 and all fall within the 10-year limit allowable for generic data under EN 15804.

Data for bamboo plywood was sourced from a report by Vogtländer and van der Lugt (2014). The authors collected data from a Chinese manufacturer in 2013. The resin type and resin loading were adapted for this EPD based on information from David Trubridge's supplier to account for use of polyvinyl acetate (PVA) and emulsion polymer isocyanate (EPI) instead of melamine formaldehyde and EPI. Data for birch plywood was obtained from an EPD of birch plywood manufactured in Finland.

Key assumptions

Upstream data: With the exception of data for energy and bamboo plywood (which correctly reflect New Zealand and Chinese conditions respectively), most upstream (supply chain) data used were European due to a lack of consistent LCI data for New Zealand at the time this study was conducted.

Electricity: David Trubridge purchases electricity from a supplier that has 100% renewable generation. However, as there is currently no system within New Zealand to ensure that the benefits of renewable energy are not double-counted at a national level, all New Zealand electricity is assumed to be the 2016 national average with a Global Warming Potential of 128 g CO₂e/kWh, made up of 84% renewable ((59.88% hydro, 17.28% geothermal, 5.36% wind, 0.77% biomass, 0.64% biogas) and 16% fossil fuels (13.49% natural gas, 1.01% hard coal, 1.40% coal gases, 0.05% lignite) (Sphera 2020). Chinese electricity was also assumed to be the 2016 national average with a Global Warming Potential of 812 g CO₂e/kWh, made up of 71% fossil fuels (66.76% hard coal, 2.74% natural gas, 1.46% coal gases, 0.17% heavy fuel oil), 29% renewable (19.19% hydro, 3.81% wind, 1.04% biomass, 0.18% photovoltaic), 3.43% nuclear and 1.21% waste (Sphera 2020).

Mass of plywood shapes (uncoated): Plywood is bought and sold by sheet thickness and surface area rather than by mass. As such, neither David Trubridge nor our supplier have long-term mass measurements from which to calculate an annual average. As a conservative approach, the mass of 5 sheets for each thickness grade were measured between December 2018 and January 2019 and the average mass of the five sheets was used for the final mass measurements. The total mass of plywood included in each product was then based on either:

1. *For stocked products:* The average mass of plywood shapes in finished products weighed between December 2018 and January 2019, or
2. *For products made to order (common for larger light fittings):* The mass calculated from the known surface area of plywood in the finished product (given by David Trubridge's CAD software) multiplied by the area density of an average sheet.

Mass of bamboo plywood shapes (coated): The total mass of all painted products was calculated by starting from the uncoated mass above, adding the mass of paint, and then subtracting the mass of water in the paint (which evaporates), paint wasted and any VOC emissions.

Mass of packaging: Products are supplied packaged in either a cardboard box (smaller light fittings) or in a MDF box (larger light fittings). Smaller light fittings are inserted into an additional outer box (made of a thinner cardboard than the main packaging) if sent locally by courier and two boxes if sent longer distance by truck / plane / ship. The double-boxed option for long distance transport is assumed in this EPD.

Cut off criteria

Environmental impacts relating to personnel, infrastructure, and production equipment not directly consumed in the process are excluded from the system boundary as per the PCR (IEPDS 2020, §6.5.4). All other reported data were incorporated and modelled using the best available life cycle inventory data.

Allocation

Upstream data: For refinery products, allocation is done by mass and net calorific value. Inventories for electricity and thermal energy generation include allocation by economic value for some by-products (e.g. gypsum, boiler ash and fly ash). Allocation by energy is applied for co-generation of heat and power. For materials and chemicals, the allocation rule most suitable for the product is applied (see Sphera 2020).

Energy for stockroom, workshop and warehouse: There is no direct relationship between mass, volume or price and the electricity required for the stockroom (incoming goods), workshop or warehouse (outgoing goods). This occurs for a number of reasons, e.g. because larger light fittings are typically made to order and therefore not stored, whereas smaller light fittings are made in batches and held as stock. As such, each product has been allocated an equal share of this energy.

Waste wood and cardboard: Wood and cardboard manufacturing waste are sent to a biomass incinerator with energy recovery. Both are considered to reach their end-of-waste state at the incinerator site and cross the boundary to the next system to become materials for energy recovery (MER). Transport is included within the system boundary but combustion is not. Instead, the sequestered carbon crosses the boundary as an emission to the next product system in module A3. That is, all embodied carbon is assumed to be released as CO₂ in module A3, even though in practice this only occurs after incineration. This allows the incinerator to include embodied carbon in their own LCAs and to achieve a net carbon balance as per EN 16485. As wood has no value at the product system boundary, there is no allocation to co-products.

Waste paper: Robust data on paper and cardboard recycling were not available. As such, a cut-off recycling approach has been applied. That is, inputs of waste paper are considered to be burden-free and no credits have been applied for recycling.

Environmental indicators derived from life cycle assessment

Acronym	Life cycle impact assessment indicators	Unit
GWP Total	Global warming potential, total	kg CO ₂ -Eq.
GWP Fossil	Global warming potential, fossil carbon	kg CO ₂ -Eq.
GWP Biogenic	Global warming potential, biogenic carbon	kg CO ₂ -Eq.
ODP	Depletion potential of the stratospheric ozone layer	kg CFC11-Eq.
AP	Acidification potential of soil and water	kg SO ₂ -Eq.
EP	Eutrophication potential	kg (PO ₄) ³⁻ - Eq.
POCP	Formation potential of tropospheric ozone	kg Ethene Eq.
ADPE	Abiotic depletion potential of non-fossil resources	kg Sb Eq.
ADPF	Abiotic depletion potential of fossil resources	MJ, net calorific value
Acronym	Resource use indicators	Unit
PERE	Renewable primary energy as energy carrier	MJ, net calorific value
PERM	Renewable primary energy resources as material utilisation	MJ, net calorific value
PERT	Total use of renewable primary energy resources	MJ, net calorific value
PENRE	Non-renewable primary energy as energy carrier	MJ, net calorific value
PENRM	Non-renewable primary energy as material utilisation	MJ, net calorific value
PENRT	Total use of non-renewable primary energy resources	MJ, net calorific value
SM	Use of secondary material	kg
RSF	Use of renewable secondary fuels	MJ, net calorific value
NRSF	Use of non-renewable secondary fuels	MJ, net calorific value
FW	Use of net fresh water	m ³
Acronym	Waste categories and other outputs	Unit
HWD	Hazardous waste disposed	kg
NHWD	Non-hazardous waste disposed	kg
RWD	Radioactive waste disposed	kg
CRU	Components for re-use	kg
MFR	Materials for recycling	kg
MER	Materials for energy recovery	kg
EEE	Exported electrical energy	MJ, net calorific value
EET	Exported thermal energy (per energy carrier)	MJ, net calorific value

Note:

(1) GWP Total includes emissions and removals arising from both fossil (GWP Fossil) and biogenic carbon (GWP Biogenic) sources and sinks, including biogenic carbon stored in the finished product. GWP Total is the indicator typically declared in EPDs produced according to EN 15804 (see EN 16485, for example). Stored biogenic carbon is declared separately in the “Declared unit” section.

(2) Life cycle impact assessment results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks.

LCA results for products with a natural finish [modules A1-A3]

Environmental impact	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
GWP Total [kg CO ₂ -eq.]	3.09	3.39	2.58	2.64	1.88	3.19	4.84	7.15	9.33	45.2	1.90	3.29	4.25	7.65
GWP Fossil [kg CO ₂ -eq.]	4.54	5.67	3.57	4.17	2.87	5.46	8.59	11.9	15.6	61.2	2.90	5.62	8.00	12.5
GWP Biogenic [kg CO ₂ -eq.]	-1.44	-2.28	-0.996	-1.53	-0.995	-2.27	-3.75	-4.78	-6.27	-16.0	-1.00	-2.33	-3.74	-4.87
ODP [kg CFC11-eq.]	1.28E-10	1.66E-10	1.16E-10	1.46E-10	6.63E-11	1.91E-10	3.47E-10	4.99E-10	6.88E-10	2.25E-09	6.62E-11	1.99E-10	3.12E-10	5.24E-10
AP [kg SO ₂ -eq.]	0.0268	0.0356	0.0204	0.0251	0.0155	0.0335	0.0552	0.0817	0.110	0.384	0.0155	0.0347	0.0515	0.0855
EP [kg PO ₄ ³⁻ - eq.]	0.00452	0.00610	0.00335	0.00420	0.00249	0.00583	0.00988	0.0143	0.0194	0.0702	0.00250	0.00604	0.00917	0.0151
POCP [kg C ₂ H ₄ eq.]	0.00199	0.00265	0.00148	0.00184	0.00106	0.00233	0.00387	0.00577	0.00781	0.0286	0.00107	0.00242	0.00361	0.00604
ADPE [kg Sb eq.]	1.23E-04	1.23E-04	1.22E-04	1.23E-04	1.22E-04	1.23E-04	1.25E-04	2.04E-04	2.05E-04	3.47E-04	1.22E-04	1.23E-04	1.25E-04	2.04E-04
ADPF [MJ]	67.6	84.8	52.9	61.9	41.7	77.8	122	169	221	863	42.1	80.0	113	177
Resource use	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
PERE [MJ]	100	123	76.8	88.1	60.2	116	190	261	349	1,510	61.8	120	174	278
PERM [MJ]	14.7	23.7	9.85	15.6	9.38	21.6	35.7	46.0	60.9	159	9.50	22.1	36.1	46.6
PERT [MJ]	115	147	86.7	104	69.6	137	226	307	409	1,670	71.3	142	210	325
PENRE [MJ]	67.4	84.5	52.7	61.7	41.8	77.6	122	168	219	866	42.2	79.8	113	176
PENRM [MJ]	0.575	0.575	0.575	0.575	0.442	0.575	0.599	0.786	0.786	1.05	0.442	0.575	0.575	0.786
PENRT [MJ]	68.0	85.1	53.2	62.3	42.2	78.2	122	169	220	867	42.6	80.4	114	176
SM [kg]	0.0983	0.122	0.0983	0.122	0.184	0.260	0.370	0.273	0.226	0.552	0.184	0.260	0.370	0.273
RSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NRSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FW [kg]	0.139	0.150	0.114	0.119	0.0978	0.137	0.195	0.240	0.300	1.33	0.102	0.139	0.181	0.258
Waste categories and output flows	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
HWD [kg]	4.27E-05	6.18E-05	2.91E-05	3.95E-05	1.81E-05	4.05E-05	7.33E-05	1.11E-04	1.55E-04	9.95E-04	1.81E-05	4.24E-05	6.79E-05	1.16E-04
NHWD [kg]	0.277	0.321	0.232	0.249	0.183	0.316	0.515	0.744	0.974	4.80	0.181	0.327	0.460	0.787
RWD [kg]	5.71E-04	7.53E-04	4.47E-04	5.53E-04	4.10E-04	7.87E-04	0.00126	0.00166	0.00212	0.00949	4.10E-04	8.08E-04	0.00118	0.00173
CRU [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MER [kg]	1.63	2.21	1.16	1.44	0.756	1.90	3.46	5.15	7.13	34.8	0.750	1.99	3.09	5.49
EEE [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EET [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LCA results for products with a natural finish [modules A1-A3]

Environmental impact	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
GWP Total [kg CO ₂ -eq.]	9.33	43.8	6.69	23.7	1.55	3.10	20.2	1.81	3.94	6.58	10.4	39.7	2.07	3.67
GWP Fossil [kg CO ₂ -eq.]	15.7	59.8	10.3	37.1	2.63	4.98	26.7	3.06	6.42	10.5	16.3	55.2	3.30	6.47
GWP Biogenic [kg CO ₂ -eq.]	-6.33	-16.0	-3.61	-13.5	-1.08	-1.88	-6.51	-1.25	-2.48	-3.89	-5.96	-15.5	-1.23	-2.81
ODP [kg CFC11-eq.]	6.88E-10	2.24E-09	3.83E-10	1.59E-09	5.55E-11	1.63E-10	8.75E-10	6.86E-11	1.89E-10	3.81E-10	6.44E-10	2.21E-09	7.52E-11	2.10E-10
AP [kg SO ₂ -eq.]	0.110	0.375	0.0622	0.243	0.0133	0.0297	0.157	0.0159	0.0355	0.0636	0.105	0.355	0.0171	0.0372
EP [kg PO ₄ ³⁻ - eq.]	0.0194	0.0685	0.0112	0.0445	0.00212	0.00512	0.0285	0.00260	0.00630	0.0115	0.0189	0.0653	0.00283	0.00662
POCP [kg C ₂ H ₄ eq.]	0.00782	0.0280	0.00437	0.0179	8.80E-04	0.00207	0.0116	0.00108	0.00250	0.00446	0.00732	0.0258	0.00117	0.00258
ADPE [kg Sb eq.]	2.05E-04	3.44E-04	1.25E-04	2.48E-04	1.22E-04	1.23E-04	3.63E-04	1.22E-04	1.24E-04	1.26E-04	2.05E-04	3.93E-04	1.22E-04	1.24E-04
ADPF [MJ]	221	847	146	536	37.6	70.6	379	43.8	90.8	147	227	788	47.3	91.3
Resource use	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
PERE [MJ]	351	1,460	241	851	55.0	111	742	66.8	157	256	399	1,400	74.3	148
PERM [MJ]	61.7	161	33.3	137	10.1	17.9	61.8	12.0	23.7	36.5	55.1	142	11.6	26.6
PERT [MJ]	413	1,620	275	989	65.1	129	804	78.8	181	292	455	1,540	85.9	175
PENRE [MJ]	220	850	146	534	37.9	70.4	378	44.1	90.7	146	226	786	47.5	91.4
PENRM [MJ]	0.786	1.05	0.884	0.978	0.420	0.603	0.812	0.332	0.726	0.834	0.859	0.834	0.420	0.581
PENRT [MJ]	221	852	147	535	38.3	71.0	379	44.5	91.4	147	227	787	48.0	92.0
SM [kg]	0.226	0.552	0.375	0.678	0.240	0.221	0.331	0.235	0.308	0.375	0.521	0.695	0.235	0.380
RSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NRSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FW [kg]	0.309	1.28	0.270	0.790	0.0967	0.146	0.950	0.113	0.221	0.299	0.417	1.40	0.123	0.197
Waste categories and output flows	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
HWD [kg]	1.55E-04	9.75E-04	9.58E-05	3.93E-04	1.40E-05	3.79E-05	3.57E-04	1.93E-05	6.30E-05	1.03E-04	1.67E-04	6.16E-04	2.18E-05	4.95E-05
NHWD [kg]	0.968	4.71	0.555	2.32	0.158	0.281	1.62	0.167	0.295	0.521	0.921	3.74	0.192	0.342
RWD [kg]	0.00212	0.00937	0.00140	0.00493	4.04E-04	6.79E-04	0.00305	4.51E-04	8.54E-04	0.00140	0.00222	0.00702	4.73E-04	9.33E-04
CRU [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MER [kg]	7.08	33.8	4.32	17.2	0.561	1.69	13.1	0.732	2.26	4.38	7.46	28.2	0.866	2.16
EEE [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EET [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LCA results for products with a natural finish [modules A1-A3]

Environmental impact	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
GWP Total [kg CO ₂ -eq.]	5.76	34.5	38.7	52.1	3.73	6.42	14.5	24.6	4.69	3.46	19.6	25.6	47.3	2.95
GWP Fossil [kg CO ₂ -eq.]	9.80	48.7	58.2	79.4	5.60	9.42	20.0	31.8	7.43	5.65	23.9	31.8	60.1	4.19
GWP Biogenic [kg CO ₂ -eq.]	-4.04	-14.2	-19.5	-27.3	-1.87	-3.00	-5.54	-7.19	-2.73	-2.19	-4.34	-6.23	-12.8	-1.24
ODP [kg CFC11-eq.]	3.61E-10	1.47E-09	2.05E-09	2.88E-09	1.92E-10	3.56E-10	6.32E-10	9.14E-10	2.32E-10	1.65E-10	5.84E-10	1.16E-09	2.27E-09	7.82E-11
AP [kg SO ₂ -eq.]	0.0590	0.268	0.347	0.474	0.0355	0.0604	0.118	0.174	0.0426	0.0316	0.121	0.195	0.373	0.0187
EP [kg PO ₄ ³⁻ - eq.]	0.0106	0.0508	0.0660	0.0900	0.00592	0.0105	0.0212	0.0331	0.00758	0.00554	0.0233	0.0366	0.0704	0.00314
POCP [kg C ₂ H ₄ eq.]	0.00420	0.0201	0.0261	0.0353	0.00245	0.00426	0.00812	0.0127	0.00303	0.00223	0.00912	0.0141	0.0280	0.00129
ADPE [kg Sb eq.]	1.25E-04	3.71E-04	3.76E-04	3.86E-04	1.84E-04	1.86E-04	2.06E-04	2.11E-04	1.24E-04	1.23E-04	2.07E-04	2.12E-04	3.45E-04	1.23E-04
ADPF [MJ]	139	686	830	1,120	79.2	132	277	438	104	79.7	330	443	859	56.6
Resource use	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
PERE [MJ]	231	1,480	1,670	2,210	122	223	574	1,060	191	138	838	946	1,690	125
PERM [MJ]	39.0	137	196	272	17.5	28.1	38.5	57.4	25.8	20.9	37.6	49.6	122	11.6
PERT [MJ]	270	1,620	1,860	2,480	139	251	613	1,120	217	159	876	995	1,810	136
PENRE [MJ]	139	686	829	1,120	78.9	132	278	438	104	79.7	330	441	855	56.6
PENRM [MJ]	0.603	0.870	0.870	0.834	0.599	0.627	0.881	0.555	0.784	0.597	0.881	0.881	0.909	0.603
PENRT [MJ]	139	687	830	1,130	79.5	132	279	438	105	80.3	331	442	856	57.2
SM [kg]	0.385	1.19	1.51	2.25	0.176	0.190	0.392	0.508	0.261	0.261	0.380	0.284	0.253	0.217
RSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NRSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FW [kg]	0.288	2.03	1.86	2.56	0.151	0.261	0.787	1.47	0.272	0.201	1.22	1.04	1.72	0.260
Waste categories and output flows	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
HWD [kg]	8.42E-05	7.86E-04	0.00107	0.00119	4.07E-05	7.79E-05	1.78E-04	5.51E-04	7.22E-05	5.20E-05	4.94E-04	4.98E-04	9.95E-04	1.85E-05
NHWD [kg]	0.523	2.54	3.29	4.66	0.357	0.585	1.01	1.48	0.367	0.277	1.09	2.00	4.18	0.171
RWD [kg]	0.00133	0.00556	0.00720	0.00993	7.51E-04	0.00120	0.00253	0.00342	9.40E-04	7.43E-04	0.00231	0.00364	0.00683	4.42E-04
CRU [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MER [kg]	3.65	25.0	33.5	41.3	1.98	3.83	9.10	18.1	2.76	1.92	14.2	19.2	36.3	0.748
EEE [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EET [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LCA results for products with a natural finish [modules A1-A3]

Environmental impact	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
GWP Total [kg CO ₂ -eq.]	3.87	3.84	59.4	73.0	64.5	73.2	108	21.2	27.2	0.962	1.85	2.08	2.27	1.87
GWP Fossil [kg CO ₂ -eq.]	5.09	5.08	64.6	81.3	71.5	83.2	127	25.3	33.0	1.44	3.05	6.09	6.29	5.88
GWP Biogenic [kg CO ₂ -eq.]	-1.21	-1.24	-5.20	-8.38	-7.06	-10.0	-18.8	-4.06	-5.78	-0.480	-1.20	-4.01	-4.02	-4.01
ODP [kg CFC11-eq.]	7.87E-11	7.83E-11	5.50E-10	9.95E-10	2.49E-09	3.37E-09	5.94E-09	7.22E-10	1.20E-09	3.85E-11	1.22E-10	4.99E-11	4.99E-11	4.99E-11
AP [kg SO ₂ -eq.]	0.0204	0.0204	0.299	0.396	0.337	0.417	0.695	0.137	0.200	0.00733	0.0189	0.0231	0.0235	0.0226
EP [kg PO ₄ ³⁻ - eq.]	0.00350	0.00349	0.0338	0.0487	0.0365	0.0490	0.0952	0.0262	0.0377	0.00140	0.00355	0.00435	0.00444	0.00426
POCP [kg C ₂ H ₄ eq.]	0.00143	0.00143	0.0186	0.0250	0.0217	0.0272	0.0468	0.0103	0.0147	5.37E-04	0.00135	0.00152	0.00155	0.00149
ADPE [kg Sb eq.]	1.23E-04	1.23E-04	4.55E-04	4.98E-04	0.00222	0.00281	0.00399	2.08E-04	2.12E-04	5.34E-07	1.36E-06	1.83E-04	1.83E-04	1.83E-04
ADPF [MJ]	67.4	67.3	796	1,020	889	1,040	1,640	352	462	21.0	42.9	93.3	95.5	90.6
Resource use	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
PERE [MJ]	168	168	525	788	518	725	1,480	841	971	39.4	77.2	139	149	131
PERM [MJ]	11.2	11.6	48.3	76.9	64.8	90.2	171	35.1	48.4	4.18	11.5	52.3	52.5	51.0
PERT [MJ]	180	180	573	865	583	815	1,650	877	1,020	43.6	88.7	191	201	182
PENRE [MJ]	67.4	67.3	864	1,090	964	1,120	1,730	351	460	21.2	42.8	94.1	96.4	91.5
PENRM [MJ]	0.603	0.603	0.241	0.241	-1.50	-1.59	-1.79	0.793	0.793	0.0442	0.0442	2.21	2.21	2.21
PENRT [MJ]	68.0	67.9	864	1,090	962	1,120	1,730	352	461	21.2	42.9	96.3	98.6	93.7
SM [kg]	0.217	0.217	0.394	0.506	1.27	1.45	2.17	0.231	0.166	0.0754	0.111	1.17	1.17	1.17
RSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NRSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FW [kg]	0.372	0.372	0.857	1.11	0.808	0.936	1.55	1.13	1.10	0.0628	0.0917	0.252	0.279	0.229
Waste categories and output flows	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
HWD [kg]	1.86E-05	1.86E-05	1.20E-04	2.19E-04	1.14E-04	2.05E-04	3.19E-04	4.95E-04	4.98E-04	1.18E-05	2.71E-05	1.08E-04	1.08E-04	1.09E-04
NHWD [kg]	0.181	0.178	9.96	12.0	8.10	8.74	12.4	1.43	2.25	0.0773	0.168	0.237	0.238	0.250
RWD [kg]	4.49E-04	4.48E-04	0.0286	0.0340	0.0232	0.0245	0.0306	0.00250	0.00363	1.92E-04	4.07E-04	0.00122	0.00122	0.00121
CRU [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR [kg]	0	0	0	0	0	0	0	0	0	0	0	2.25E-05	2.20E-05	2.89E-05
MER [kg]	0.771	0.751	5.83	11.0	5.36	10.1	24.9	15.4	19.4	0.554	1.30	2.32	2.32	2.32
EEE [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EET [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LCA results for products with a carbonised (caramel) finish [modules A1-A3]

Environmental impact	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
GWP Total [kg CO ₂ -eq.]	3.45	3.92	2.82	2.97	2.02	3.48	5.35	7.93	10.4	54.2	2.05	3.59	4.73	8.47
GWP Fossil [kg CO ₂ -eq.]	4.91	6.22	3.82	4.52	3.03	5.76	9.13	12.7	16.8	70.5	3.06	5.93	8.50	13.4
GWP Biogenic [kg CO ₂ -eq.]	-1.46	-2.30	-1.01	-1.55	-1.00	-2.28	-3.78	-4.82	-6.33	-16.3	-1.01	-2.34	-3.77	-4.91
ODP [kg CFC11-eq.]	1.28E-10	1.67E-10	1.16E-10	1.47E-10	6.65E-11	1.91E-10	3.48E-10	5.00E-10	6.90E-10	2.26E-09	6.63E-11	1.99E-10	3.13E-10	5.25E-10
AP [kg SO ₂ -eq.]	0.0274	0.0363	0.0207	0.0256	0.0157	0.0339	0.0558	0.0826	0.111	0.398	0.0157	0.0351	0.0520	0.0865
EP [kg PO ₄ ³⁻ - eq.]	0.00473	0.00640	0.00349	0.00439	0.00258	0.00601	0.0102	0.0148	0.0201	0.0752	0.00259	0.00623	0.00948	0.0156
POCP [kg C ₂ H ₄ eq.]	0.00206	0.00275	0.00153	0.00190	0.00109	0.00238	0.00396	0.00590	0.00799	0.0304	0.00110	0.00247	0.00369	0.00617
ADPE [kg Sb eq.]	1.23E-04	1.24E-04	1.22E-04	1.23E-04	1.22E-04	1.23E-04	1.25E-04	2.04E-04	2.06E-04	3.49E-04	1.22E-04	1.24E-04	1.25E-04	2.04E-04
ADPF [MJ]	76.5	97.7	58.9	70.1	45.4	85.6	136	190	251	1,080	45.8	88.2	127	199
Resource use	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
PERE [MJ]	150	195	110	134	81.1	163	275	389	528	2,670	82.7	169	253	413
PERM [MJ]	14.7	23.7	9.85	15.6	9.38	21.6	35.7	46.0	60.9	159	9.50	22.1	36.1	46.6
PERT [MJ]	164	219	120	150	90.5	184	310	435	588	2,830	92.2	191	289	459
PENRE [MJ]	78.8	101	60.4	72.3	46.6	88.9	142	199	262	1,130	47.0	91.6	132	208
PENRM [MJ]	0.575	0.575	0.575	0.575	0.442	0.575	0.599	0.786	0.786	1.05	0.442	0.575	0.575	0.786
PENRT [MJ]	79.4	102	61.0	72.8	47.1	89.4	143	199	263	1,130	47.5	92.2	133	209
SM [kg]	0.0983	0.122	0.0983	0.122	0.184	0.260	0.370	0.273	0.226	0.552	0.184	0.260	0.370	0.273
RSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NRSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FW [kg]	0.139	0.150	0.115	0.119	0.0980	0.137	0.195	0.241	0.300	1.35	0.103	0.139	0.182	0.258
Waste categories and output flows	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
HWD [kg]	1.60E-04	2.33E-04	1.09E-04	1.48E-04	6.74E-05	1.51E-04	2.73E-04	4.12E-04	5.77E-04	0.00376	6.74E-05	1.58E-04	2.53E-04	4.33E-04
NHWD [kg]	0.279	0.325	0.234	0.252	0.184	0.318	0.519	0.750	0.983	4.86	0.182	0.329	0.464	0.793
RWD [kg]	7.04E-04	9.46E-04	5.37E-04	6.75E-04	4.65E-04	9.01E-04	0.00146	0.00197	0.00256	0.0127	4.65E-04	9.28E-04	0.00138	0.00206
CRU [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MER [kg]	1.63	2.21	1.16	1.44	0.756	1.90	3.46	5.15	7.13	34.8	0.750	1.99	3.09	5.49
EEE [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EET [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LCA results for products with a carbonised (caramel) finish [modules A1-A3]

Environmental impact	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
GWP Total [kg CO ₂ -eq.]	10.4	52.7	7.43	26.6	1.67	3.39	23.3	1.97	4.48	7.39	11.6	44.5	2.25	4.04
GWP Fossil [kg CO ₂ -eq.]	16.8	69.0	11.1	40.2	2.75	5.28	30.0	3.23	6.98	11.3	17.7	60.3	3.49	6.86
GWP Biogenic [kg CO ₂ -eq.]	-6.39	-16.3	-3.64	-13.6	-1.08	-1.89	-6.63	-1.26	-2.50	-3.92	-6.02	-15.7	-1.24	-2.82
ODP [kg CFC11-eq.]	6.89E-10	2.25E-09	3.84E-10	1.59E-09	5.57E-11	1.63E-10	8.78E-10	6.88E-11	1.90E-10	3.82E-10	6.46E-10	2.21E-09	7.54E-11	2.10E-10
AP [kg SO ₂ -eq.]	0.111	0.389	0.0631	0.247	0.0135	0.0300	0.162	0.0162	0.0363	0.0647	0.107	0.361	0.0174	0.0377
EP [kg PO ₄ ³⁻ - eq.]	0.0201	0.0735	0.0117	0.0464	0.00219	0.00530	0.0304	0.00269	0.00661	0.0120	0.0197	0.0682	0.00294	0.00685
POCP [kg C ₂ H ₄ eq.]	0.00800	0.0298	0.00450	0.0184	9.03E-04	0.00212	0.0122	0.00111	0.00261	0.00461	0.00755	0.0267	0.00121	0.00265
ADPE [kg Sb eq.]	2.06E-04	3.47E-04	1.26E-04	2.48E-04	1.22E-04	1.23E-04	3.64E-04	1.22E-04	1.24E-04	1.26E-04	2.06E-04	3.94E-04	1.22E-04	1.24E-04
ADPF [MJ]	252	1,060	166	615	40.5	78.1	455	47.8	104	168	261	914	51.8	101
Resource use	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
PERE [MJ]	530	2,600	352	1,310	71.0	155	1,160	89.1	230	376	593	2,110	99.5	205
PERM [MJ]	61.7	161	33.3	137	10.1	17.9	61.8	12.0	23.7	36.5	55.1	142	11.6	26.6
PERT [MJ]	592	2,760	386	1,440	81.1	173	1,220	101	254	412	648	2,250	111	232
PENRE [MJ]	263	1,110	172	643	41.5	80.8	473	49.3	107	175	272	954	53.3	105
PENRM [MJ]	0.786	1.05	0.884	0.978	0.420	0.603	0.812	0.332	0.726	0.834	0.859	0.834	0.420	0.581
PENRT [MJ]	264	1,110	173	644	41.9	81.4	474	49.6	108	175	273	955	53.7	106
SM [kg]	0.226	0.552	0.375	0.678	0.240	0.221	0.331	0.235	0.308	0.375	0.521	0.695	0.235	0.380
RSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NRSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FW [kg]	0.309	1.29	0.270	0.792	0.0968	0.146	0.956	0.113	0.222	0.300	0.418	1.41	0.124	0.197
Waste categories and output flows	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
HWD [kg]	5.77E-04	0.00368	3.58E-04	0.00147	5.18E-05	1.41E-04	0.00135	7.22E-05	2.36E-04	3.87E-04	6.23E-04	0.00231	8.14E-05	1.84E-04
NHWD [kg]	0.977	4.77	0.560	2.35	0.159	0.284	1.65	0.168	0.299	0.527	0.931	3.78	0.194	0.345
RWD [kg]	0.00256	0.0125	0.00169	0.00608	4.47E-04	7.90E-04	0.00420	5.10E-04	0.00105	0.00171	0.00271	0.00886	5.40E-04	0.00108
CRU [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MER [kg]	7.08	33.8	4.32	17.2	0.561	1.69	13.1	0.732	2.26	4.38	7.46	28.2	0.866	2.16
EEE [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EET [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LCA results for products with a carbonised (caramel) finish [modules A1-A3]

Environmental impact	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
GWP Total [kg CO ₂ -eq.]	6.39	41.9	48.8	62.7	4.02	6.97	15.9	29.9	5.29	3.90	24.6	30.1	56.3	N/A
GWP Fossil [kg CO ₂ -eq.]	10.5	56.4	68.7	90.4	5.90	9.99	21.5	37.3	8.05	6.10	29.1	36.5	69.4	N/A
GWP Biogenic [kg CO ₂ -eq.]	-4.07	-14.4	-19.9	-27.7	-1.88	-3.03	-5.60	-7.38	-2.76	-2.20	-4.51	-6.40	-13.2	N/A
ODP [kg CFC11-eq.]	3.61E-10	1.48E-09	2.06E-09	2.89E-09	1.93E-10	3.57E-10	6.33E-10	9.18E-10	2.32E-10	1.65E-10	5.88E-10	1.16E-09	2.28E-09	N/A
AP [kg SO ₂ -eq.]	0.0598	0.280	0.363	0.490	0.0358	0.0611	0.120	0.183	0.0435	0.0322	0.129	0.202	0.387	N/A
EP [kg PO ₄ ³⁻ - eq.]	0.0110	0.0549	0.0716	0.0960	0.00610	0.0109	0.0221	0.0360	0.00793	0.00579	0.0260	0.0392	0.0755	N/A
POCP [kg C ₂ H ₄ eq.]	0.00431	0.0216	0.0282	0.0374	0.00249	0.00435	0.00838	0.0138	0.00315	0.00231	0.0102	0.0150	0.0298	N/A
ADPE [kg Sb eq.]	1.25E-04	3.73E-04	3.79E-04	3.89E-04	1.84E-04	1.86E-04	2.07E-04	2.12E-04	1.24E-04	1.23E-04	2.08E-04	2.13E-04	3.47E-04	N/A
ADPF [MJ]	155	859	1,070	1,380	87.0	147	314	560	119	90.6	442	550	1,070	N/A
Resource use	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
PERE [MJ]	329	2,410	2,930	3,600	169	314	781	1,710	276	198	1,420	1,530	2,860	N/A
PERM [MJ]	39.0	137	196	272	17.5	28.1	38.5	57.4	25.8	20.9	37.6	49.6	122	N/A
PERT [MJ]	368	2,540	3,130	3,870	186	342	820	1,770	301	219	1,460	1,580	2,980	N/A
PENRE [MJ]	162	891	1,110	1,440	90.2	153	326	581	124	93.6	457	573	1,120	N/A
PENRM [MJ]	0.603	0.870	0.870	0.834	0.599	0.627	0.881	0.555	0.784	0.597	0.881	0.881	0.909	N/A
PENRT [MJ]	162	892	1,110	1,440	90.8	154	327	581	124	94.2	458	574	1,120	N/A
SM [kg]	0.385	1.19	1.51	2.25	0.176	0.190	0.392	0.508	0.261	0.261	0.380	0.284	0.253	N/A
RSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
NRSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
FW [kg]	0.289	2.04	1.88	2.58	0.151	0.261	0.789	1.48	0.273	0.202	1.23	1.05	1.74	N/A
Waste categories and output flows	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
HWD [kg]	3.14E-04	0.00297	0.00407	0.00448	1.52E-04	2.91E-04	6.68E-04	0.00209	2.71E-04	1.95E-04	0.00188	0.00188	0.00376	N/A
NHWD [kg]	0.528	2.60	3.36	4.74	0.359	0.590	1.02	1.52	0.372	0.280	1.12	2.03	4.25	N/A
RWD [kg]	0.00158	0.00816	0.0108	0.0137	8.66E-04	0.00142	0.00307	0.00527	0.00116	9.04E-04	0.00400	0.00525	0.0100	N/A
CRU [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
MFR [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
MER [kg]	3.65	25.0	33.5	41.3	1.98	3.83	9.10	18.1	2.76	1.92	14.2	19.2	36.3	N/A
EEE [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
EET [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A

LCA results for products with a carbonised (caramel) finish [modules A1-A3]

Environmental impact	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
GWP Total [kg CO ₂ -eq.]	N/A	N/A	60.2	74.5	65.3	74.7	109	26.0	31.6	1.06	2.04	N/A	N/A	N/A
GWP Fossil [kg CO ₂ -eq.]	N/A	N/A	65.4	82.9	72.4	84.8	128	30.3	37.6	1.54	3.25	N/A	N/A	N/A
GWP Biogenic [kg CO ₂ -eq.]	N/A	N/A	-5.24	-8.46	-7.10	-10.1	-18.9	-4.23	-5.95	-0.484	-1.21	N/A	N/A	N/A
ODP [kg CFC11-eq.]	N/A	N/A	5.51E-10	9.97E-10	2.49E-09	3.37E-09	5.95E-09	7.26E-10	1.20E-09	3.86E-11	1.22E-10	N/A	N/A	N/A
AP [kg SO ₂ -eq.]	N/A	N/A	0.300	0.398	0.338	0.419	0.695	0.145	0.207	0.00747	0.0191	N/A	N/A	N/A
EP [kg PO ₄ ³⁻ - eq.]	N/A	N/A	0.0344	0.0497	0.0371	0.0499	0.0963	0.0289	0.0402	0.00146	0.00367	N/A	N/A	N/A
POCP [kg C ₂ H ₄ eq.]	N/A	N/A	0.0187	0.0252	0.0218	0.0274	0.0468	0.0114	0.0156	5.56E-04	0.00138	N/A	N/A	N/A
ADPE [kg Sb eq.]	N/A	N/A	4.55E-04	4.98E-04	0.00222	0.00281	0.00399	2.09E-04	2.13E-04	5.58E-07	1.41E-06	N/A	N/A	N/A
ADPF [MJ]	N/A	N/A	819	1,060	912	1,080	1,690	463	569	23.5	48.1	N/A	N/A	N/A
Resource use	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
PERE [MJ]	N/A	N/A	663	1,040	650	961	1,840	1,420	1,560	53.2	108	N/A	N/A	N/A
PERM [MJ]	N/A	N/A	48.3	76.9	64.8	90.2	171	35.1	48.4	4.18	11.5	N/A	N/A	N/A
PERT [MJ]	N/A	N/A	711	1,120	715	1,050	2,010	1,460	1,600	57.3	120	N/A	N/A	N/A
PENRE [MJ]	N/A	N/A	897	1,150	995	1,180	1,820	479	592	24.3	50.4	N/A	N/A	N/A
PENRM [MJ]	N/A	N/A	0.241	0.241	-1.50	-1.59	-1.79	0.793	0.793	0.0442	0.0442	N/A	N/A	N/A
PENRT [MJ]	N/A	N/A	897	1,150	993	1,180	1,820	479	593	24.4	50.4	N/A	N/A	N/A
SM [kg]	N/A	N/A	0.394	0.506	1.27	1.45	2.17	0.231	0.166	0.0754	0.111	N/A	N/A	N/A
RSF [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
NRSF [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
FW [kg]	N/A	N/A	0.857	1.12	0.808	0.937	1.55	1.14	1.11	0.0629	0.0918	N/A	N/A	N/A
Waste categories and output flows	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
HWD [kg]	N/A	N/A	4.45E-04	8.15E-04	4.25E-04	7.64E-04	0.00117	0.00188	0.00188	4.43E-05	1.01E-04	N/A	N/A	N/A
NHWD [kg]	N/A	N/A	9.97	12.0	8.11	8.75	12.4	1.46	2.29	0.0781	0.170	N/A	N/A	N/A
RWD [kg]	N/A	N/A	0.0289	0.0346	0.0236	0.0251	0.0314	0.00417	0.00522	2.28E-04	4.84E-04	N/A	N/A	N/A
CRU [kg]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
MFR [kg]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
MER [kg]	N/A	N/A	5.83	11.0	5.36	10.1	24.9	15.4	19.4	0.554	1.30	N/A	N/A	N/A
EEE [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
EET [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A

LCA results for products with a coloured or white paint finish (1 side) [modules A1-A3]

Environmental impact	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
GWP Total [kg CO ₂ -eq.]	N/A	N/A	N/A	N/A	3.56	6.19	10.4	15.3	20.7	78.4	3.80	6.43	9.24	16.3
GWP Fossil [kg CO ₂ -eq.]	N/A	N/A	N/A	N/A	4.61	8.50	14.3	20.2	27.1	95.8	4.97	8.79	13.0	21.2
GWP Biogenic [kg CO ₂ -eq.]	N/A	N/A	N/A	N/A	-1.04	-2.31	-3.85	-4.88	-6.37	-17.5	-1.17	-2.37	-3.78	-5.00
ODP [kg CFC11-eq.]	N/A	N/A	N/A	N/A	5.48E-11	1.66E-10	3.01E-10	4.31E-10	5.91E-10	2.09E-09	6.01E-11	1.73E-10	2.69E-10	4.54E-10
AP [kg SO ₂ -eq.]	N/A	N/A	N/A	N/A	0.0205	0.0421	0.0714	0.105	0.142	0.479	0.0221	0.0437	0.0655	0.110
EP [kg PO ₄ ³⁻ - eq.]	N/A	N/A	N/A	N/A	0.00290	0.00649	0.0111	0.0161	0.0219	0.0808	0.00311	0.00674	0.0102	0.0170
POCP [kg C ₂ H ₄ eq.]	N/A	N/A	N/A	N/A	0.0190	0.0350	0.0649	0.0950	0.132	0.326	0.0214	0.0366	0.0580	0.100
ADPE [kg Sb eq.]	N/A	N/A	N/A	N/A	1.29E-04	1.37E-04	1.50E-04	2.40E-04	2.56E-04	4.69E-04	1.30E-04	1.37E-04	1.47E-04	2.42E-04
ADPF [MJ]	N/A	N/A	N/A	N/A	74.5	135	229	326	440	1,540	80.5	140	209	343
Resource use	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
PERE [MJ]	N/A	N/A	N/A	N/A	95.1	184	315	447	607	2,890	101	191	288	474
PERM [MJ]	N/A	N/A	N/A	N/A	9.38	21.6	35.7	46.0	60.9	159	9.50	22.1	36.1	46.6
PERT [MJ]	N/A	N/A	N/A	N/A	105	206	351	493	668	3,050	111	213	324	520
PENRE [MJ]	N/A	N/A	N/A	N/A	73.5	134	227	321	432	1,550	81.2	139	206	338
PENRM [MJ]	N/A	N/A	N/A	N/A	3.43	6.17	10.8	16.3	23.0	37.4	1.96	6.41	10.5	16.7
PENRT [MJ]	N/A	N/A	N/A	N/A	76.9	140	237	337	455	1,590	83.1	145	216	355
SM [kg]	N/A	N/A	N/A	N/A	0.184	0.260	0.370	0.273	0.226	0.552	0.184	0.260	0.370	0.273
RSF [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
NRSF [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
FW [kg]	N/A	N/A	N/A	N/A	0.138	0.201	0.315	0.415	0.542	1.94	0.149	0.207	0.288	0.442
Waste categories and output flows	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
HWD [kg]	N/A	N/A	N/A	N/A	6.74E-05	1.51E-04	2.73E-04	4.12E-04	5.77E-04	0.00376	6.74E-05	1.57E-04	2.53E-04	4.33E-04
NHWD [kg]	N/A	N/A	N/A	N/A	0.859	1.55	2.83	4.09	5.63	16.5	1.03	1.61	2.48	4.33
RWD [kg]	N/A	N/A	N/A	N/A	9.72E-04	0.00183	0.00320	0.00450	0.00609	0.0212	0.00105	0.00190	0.00291	0.00472
CRU [kg]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
MFR [kg]	N/A	N/A	N/A	N/A	0.0299	0.0633	0.118	0.173	0.241	0.572	0.0338	0.0662	0.105	0.182
MER [kg]	N/A	N/A	N/A	N/A	0.786	1.96	3.58	5.33	7.37	35.3	0.784	2.05	3.19	5.67
EEE [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
EET [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0

LCA results for products with a coloured or white paint finish (1 side) [modules A1-A3]

Environmental impact	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
GWP Total [kg CO ₂ -eq.]	20.7	76.8	12.2	42.2	2.70	5.52	38.1	3.27	6.74	11.9	19.7	78.8	3.75	6.72
GWP Fossil [kg CO ₂ -eq.]	27.1	94.2	16.0	56.0	3.82	7.43	45.0	4.53	9.23	15.8	25.9	94.9	5.02	9.56
GWP Biogenic [kg CO ₂ -eq.]	-6.42	-17.5	-3.76	-13.8	-1.12	-1.91	-6.94	-1.26	-2.49	-3.94	-6.17	-16.1	-1.27	-2.84
ODP [kg CFC11-eq.]	5.90E-10	2.07E-09	3.43E-10	1.45E-09	4.77E-11	1.43E-10	7.62E-10	5.73E-11	1.68E-10	3.40E-10	5.76E-10	1.89E-09	6.38E-11	1.85E-10
AP [kg SO ₂ -eq.]	0.142	0.470	0.0783	0.295	0.0168	0.0365	0.207	0.0199	0.0429	0.0780	0.132	0.466	0.0220	0.0458
EP [kg PO ₄ ³⁻ - eq.]	0.0218	0.0790	0.0127	0.0492	0.00242	0.00568	0.0333	0.00292	0.00698	0.0128	0.0213	0.0742	0.00324	0.00732
POCP [kg C ₂ H ₄ eq.]	0.132	0.324	0.0620	0.206	0.0129	0.0276	0.182	0.0160	0.0293	0.0577	0.105	0.443	0.0185	0.0346
ADPE [kg Sb eq.]	2.56E-04	4.66E-04	1.49E-04	3.25E-04	1.27E-04	1.34E-04	4.32E-04	1.28E-04	1.35E-04	1.47E-04	2.45E-04	5.63E-04	1.29E-04	1.37E-04
ADPF [MJ]	440	1,510	255	901	60.1	117	733	71.9	145	250	411	1,540	80.0	150
Resource use	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
PERE [MJ]	609	2,810	392	1,430	80.7	172	1,290	100	248	411	659	2,380	113	227
PERM [MJ]	61.7	161	33.3	137	10.1	17.9	61.8	12.0	23.7	36.5	55.1	142	11.6	26.6
PERT [MJ]	671	2,970	426	1,570	90.8	190	1,350	112	272	447	714	2,520	125	254
PENRE [MJ]	432	1,530	254	898	59.9	116	729	71.0	144	248	409	1,520	79.3	149
PENRM [MJ]	23.2	37.7	9.39	31.5	2.25	4.95	26.5	3.23	5.62	9.82	15.7	72.0	3.24	6.11
PENRT [MJ]	456	1,570	263	930	62.1	121	756	74.2	150	258	425	1,600	82.6	155
SM [kg]	0.226	0.552	0.375	0.678	0.240	0.221	0.331	0.235	0.308	0.375	0.521	0.695	0.235	0.380
RSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NRSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FW [kg]	0.551	1.88	0.386	1.17	0.124	0.197	1.33	0.146	0.278	0.407	0.611	2.22	0.162	0.263
Waste categories and output flows	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
HWD [kg]	5.77E-04	0.00368	3.58E-04	0.00147	5.18E-05	1.41E-04	0.00134	7.21E-05	2.36E-04	3.87E-04	6.23E-04	0.00231	8.13E-05	1.84E-04
NHWD [kg]	5.60	16.4	2.78	9.39	0.618	1.24	8.04	0.713	1.29	2.52	4.65	19.4	0.845	1.54
RWD [kg]	0.00608	0.0210	0.00333	0.0114	7.88E-04	0.00151	0.00900	9.30E-04	0.00181	0.00321	0.00548	0.0207	0.00103	0.00198
CRU [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR [kg]	0.241	0.571	0.111	0.363	0.0201	0.0494	0.283	0.0250	0.0519	0.103	0.188	0.806	0.0289	0.0617
MER [kg]	7.32	34.3	4.43	17.6	0.582	1.74	13.4	0.757	2.32	4.48	7.65	29.0	0.895	2.22
EEE [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EET [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LCA results for products with a coloured or white paint finish (1 side) [modules A1-A3]

Environmental impact	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
GWP Total [kg CO ₂ -eq.]	11.3	63.4	67.6	91.2	6.69	12.1	41.7	50.7	10.0	6.92	35.0	51.1	79.7	N/A
GWP Fossil [kg CO ₂ -eq.]	15.4	79.1	87.7	121	8.63	15.3	47.6	58.2	12.8	9.12	39.7	58.1	93.5	N/A
GWP Biogenic [kg CO ₂ -eq.]	-4.09	-15.8	-20.1	-29.5	-1.94	-3.16	-5.95	-7.52	-2.75	-2.19	-4.74	-7.03	-13.8	N/A
ODP [kg CFC11-eq.]	3.14E-10	1.35E-09	1.88E-09	2.72E-09	1.70E-10	3.14E-10	4.22E-10	7.24E-10	1.89E-10	1.37E-10	5.08E-10	1.01E-09	2.08E-09	N/A
AP [kg SO ₂ -eq.]	0.0745	0.354	0.421	0.589	0.0442	0.0774	0.197	0.246	0.0571	0.0409	0.161	0.268	0.462	N/A
EP [kg PO ₄ ³⁻ - eq.]	0.0119	0.0603	0.0749	0.103	0.00662	0.0119	0.0271	0.0396	0.00875	0.00631	0.0281	0.0437	0.0801	N/A
POCP [kg C ₂ H ₄ eq.]	0.0630	0.281	0.257	0.382	0.0346	0.0661	0.302	0.263	0.0571	0.0367	0.129	0.255	0.321	N/A
ADPE [kg Sb eq.]	1.49E-04	4.79E-04	4.72E-04	5.29E-04	1.97E-04	2.11E-04	3.25E-04	3.13E-04	1.46E-04	1.37E-04	2.56E-04	3.10E-04	4.66E-04	N/A
ADPF [MJ]	245	1,270	1,410	1,930	137	243	799	942	207	147	640	950	1,510	N/A
Resource use	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
PERE [MJ]	368	2,600	3,080	3,860	190	357	1,010	1,870	315	223	1,510	1,720	3,040	N/A
PERM [MJ]	39.0	137	196	272	17.5	28.1	38.5	57.4	25.8	20.9	37.6	49.6	122	N/A
PERT [MJ]	407	2,740	3,270	4,130	208	385	1,040	1,930	340	244	1,550	1,770	3,160	N/A
PENRE [MJ]	242	1,280	1,420	1,950	136	242	765	926	203	144	640	947	1,520	N/A
PENRM [MJ]	11.0	29.3	37.9	36.6	5.55	9.86	62.9	47.5	11.1	7.18	18.3	33.5	42.7	N/A
PENRT [MJ]	253	1,310	1,460	1,990	141	252	828	974	214	151	658	980	1,560	N/A
SM [kg]	0.385	1.19	1.51	2.25	0.176	0.190	0.392	0.508	0.261	0.261	0.380	0.284	0.253	N/A
RSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
NRSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
FW [kg]	0.407	2.56	2.33	3.28	0.214	0.386	1.45	1.97	0.392	0.277	1.50	1.59	2.27	N/A
Waste categories and output flows	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
HWD [kg]	3.14E-04	0.00297	0.00407	0.00448	1.52E-04	2.90E-04	6.67E-04	0.00209	2.71E-04	1.95E-04	0.00188	0.00188	0.00376	N/A
NHWD [kg]	2.72	13.0	11.9	18.7	1.59	2.97	12.1	10.9	2.36	1.54	5.65	11.3	15.4	N/A
RWD [kg]	0.00324	0.0156	0.0172	0.0237	0.00178	0.00318	0.0114	0.0123	0.00269	0.00188	0.00738	0.0121	0.0183	N/A
CRU [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
MFR [kg]	0.114	0.491	0.442	0.656	0.0619	0.119	0.491	0.484	0.0904	0.0576	0.199	0.401	0.565	N/A
MER [kg]	3.77	25.5	33.9	41.9	2.04	3.95	9.59	18.6	2.85	1.98	14.4	19.6	36.9	N/A
EEE [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
EET [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A

LCA results for products with a coloured or white paint finish (1 side) [modules A1-A3]

Environmental impact	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
GWP Total [kg CO ₂ -eq.]	N/A	N/A	68.3	89.4	71.4	86.7	133	37.2	50.2	2.73	4.24	N/A	N/A	N/A
GWP Fossil [kg CO ₂ -eq.]	N/A	N/A	73.7	98.3	78.8	97.3	152	42.2	57.5	3.27	5.48	N/A	N/A	N/A
GWP Biogenic [kg CO ₂ -eq.]	N/A	N/A	-5.40	-8.85	-7.33	-10.6	-18.9	-4.99	-7.25	-0.539	-1.25	N/A	N/A	N/A
ODP [kg CFC11-eq.]	N/A	N/A	4.81E-10	8.74E-10	2.44E-09	3.29E-09	5.70E-09	6.71E-10	1.11E-09	2.65E-11	1.04E-10	N/A	N/A	N/A
AP [kg SO ₂ -eq.]	N/A	N/A	0.326	0.446	0.358	0.459	0.766	0.183	0.271	0.0128	0.0257	N/A	N/A	N/A
EP [kg PO ₄ ³⁻ - eq.]	N/A	N/A	0.0359	0.0527	0.0384	0.0526	0.100	0.0319	0.0453	0.00182	0.00410	N/A	N/A	N/A
POCP [kg C ₂ H ₄ eq.]	N/A	N/A	0.116	0.205	0.0958	0.173	0.339	0.140	0.230	0.0200	0.0265	N/A	N/A	N/A
ADPE [kg Sb eq.]	N/A	N/A	4.94E-04	5.71E-04	0.00225	0.00287	0.00411	2.61E-04	3.00E-04	8.46E-06	1.16E-05	N/A	N/A	N/A
ADPF [MJ]	N/A	N/A	970	1,340	1,030	1,310	2,130	681	933	55.2	89.5	N/A	N/A	N/A
Resource use	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
PERE [MJ]	N/A	N/A	730	1,170	701	1,060	2,020	1,540	1,740	68.5	127	N/A	N/A	N/A
PERM [MJ]	N/A	N/A	48.3	76.9	64.8	90.2	171	35.1	48.4	4.18	11.5	N/A	N/A	N/A
PERT [MJ]	N/A	N/A	779	1,240	766	1,150	2,190	1,570	1,790	72.7	139	N/A	N/A	N/A
PENRE [MJ]	N/A	N/A	1,030	1,410	1,100	1,390	2,210	688	942	53.4	88.5	N/A	N/A	N/A
PENRM [MJ]	N/A	N/A	15.6	27.1	8.34	16.9	48.0	12.3	19.6	3.77	4.02	N/A	N/A	N/A
PENRT [MJ]	N/A	N/A	1,050	1,440	1,110	1,410	2,260	701	962	57.2	92.5	N/A	N/A	N/A
SM [kg]	N/A	N/A	0.394	0.506	1.27	1.45	2.17	0.231	0.166	0.0754	0.111	N/A	N/A	N/A
RSF [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
NRSF [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
FW [kg]	N/A	N/A	1.05	1.48	0.954	1.22	2.11	1.43	1.59	0.106	0.147	N/A	N/A	N/A
Waste categories and output flows	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
HWD [kg]	N/A	N/A	4.44E-04	8.15E-04	4.25E-04	7.64E-04	0.00117	0.00188	0.00188	4.43E-05	1.01E-04	N/A	N/A	N/A
NHWD [kg]	N/A	N/A	13.7	19.0	11.0	14.5	23.1	6.68	11.0	0.820	1.12	N/A	N/A	N/A
RWD [kg]	N/A	N/A	0.0317	0.0397	0.0257	0.0293	0.0396	0.00787	0.0114	7.81E-04	0.00120	N/A	N/A	N/A
CRU [kg]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
MFR [kg]	N/A	N/A	0.189	0.348	0.143	0.281	0.566	0.214	0.357	0.0326	0.0420	N/A	N/A	N/A
MER [kg]	N/A	N/A	6.02	11.3	5.50	10.4	25.5	15.6	19.8	0.587	1.35	N/A	N/A	N/A
EEE [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
EET [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A

LCA results for products with a coloured or white paint finish (2 sides) [modules A1-A3]

Environmental impact	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
GWP Total [kg CO ₂ -eq.]	N/A	N/A	N/A	N/A	4.41	8.07	13.9	20.4	27.9	97.8	4.42	8.40	12.3	21.7
GWP Fossil [kg CO ₂ -eq.]	N/A	N/A	N/A	N/A	5.45	10.3	17.7	25.1	34.0	115	5.46	10.7	16.0	26.5
GWP Biogenic [kg CO ₂ -eq.]	N/A	N/A	N/A	N/A	-1.03	-2.25	-3.76	-4.70	-6.10	-17.7	-1.04	-2.31	-3.65	-4.83
ODP [kg CFC11-eq.]	N/A	N/A	N/A	N/A	4.68E-11	1.46E-10	2.64E-10	3.76E-10	5.14E-10	1.93E-09	4.65E-11	1.52E-10	2.35E-10	3.98E-10
AP [kg SO ₂ -eq.]	N/A	N/A	N/A	N/A	0.0232	0.0478	0.0822	0.120	0.163	0.544	0.0232	0.0497	0.0747	0.127
EP [kg PO ₄ ³⁻ - eq.]	N/A	N/A	N/A	N/A	0.00304	0.00676	0.0117	0.0168	0.0228	0.0846	0.00304	0.00703	0.0106	0.0178
POCP [kg C ₂ H ₄ eq.]	N/A	N/A	N/A	N/A	0.0301	0.0589	0.110	0.160	0.223	0.574	0.0299	0.0616	0.0973	0.169
ADPE [kg Sb eq.]	N/A	N/A	N/A	N/A	1.34E-04	1.46E-04	1.68E-04	2.66E-04	2.93E-04	5.70E-04	1.34E-04	1.47E-04	1.63E-04	2.70E-04
ADPF [MJ]	N/A	N/A	N/A	N/A	88.8	168	289	413	561	1,880	88.8	174	261	435
Resource use	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
PERE [MJ]	N/A	N/A	N/A	N/A	103	197	339	482	655	3,040	104	205	308	511
PERM [MJ]	N/A	N/A	N/A	N/A	9.38	21.6	35.7	46.0	60.9	159	9.50	22.1	36.1	46.6
PERT [MJ]	N/A	N/A	N/A	N/A	112	219	375	528	716	3,200	113	227	344	558
PENRE [MJ]	N/A	N/A	N/A	N/A	85.6	162	280	397	537	1,880	85.4	168	251	419
PENRM [MJ]	N/A	N/A	N/A	N/A	6.41	11.8	20.9	31.9	45.2	73.7	6.52	12.2	20.4	32.7
PENRT [MJ]	N/A	N/A	N/A	N/A	92.0	174	301	429	582	1,950	92.0	180	271	452
SM [kg]	N/A	N/A	N/A	N/A	0.184	0.260	0.370	0.273	0.226	0.552	0.184	0.260	0.370	0.273
RSF [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
NRSF [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
FW [kg]	N/A	N/A	N/A	N/A	0.162	0.247	0.400	0.539	0.714	2.41	0.166	0.254	0.363	0.573
Waste categories and output flows	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
HWD [kg]	N/A	N/A	N/A	N/A	6.74E-05	1.51E-04	2.72E-04	4.12E-04	5.76E-04	0.00376	6.74E-05	1.57E-04	2.53E-04	4.32E-04
NHWD [kg]	N/A	N/A	N/A	N/A	1.28	2.45	4.52	6.54	9.00	26.3	1.27	2.56	3.95	6.94
RWD [kg]	N/A	N/A	N/A	N/A	0.00126	0.00246	0.00438	0.00622	0.00848	0.0279	0.00125	0.00256	0.00395	0.00655
CRU [kg]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
MFR [kg]	N/A	N/A	N/A	N/A	0.0243	0.0549	0.103	0.150	0.209	0.528	0.0241	0.0575	0.0909	0.158
MER [kg]	N/A	N/A	N/A	N/A	0.781	1.95	3.56	5.30	7.34	35.3	0.774	2.05	3.18	5.64
EEE [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
EET [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0

LCA results for products with a coloured or white paint finish (2 sides) [modules A1-A3]

Environmental impact	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
GWP Total [kg CO ₂ -eq.]	27.8	96.0	15.8	54.2	3.29	7.03	48.4	3.99	8.35	15.1	25.7	102	4.63	8.61
GWP Fossil [kg CO ₂ -eq.]	34.0	114	19.5	67.7	4.39	8.89	55.5	5.23	10.8	18.9	31.8	118	5.89	11.4
GWP Biogenic [kg CO ₂ -eq.]	-6.14	-17.7	-3.71	-13.5	-1.10	-1.86	-7.08	-1.24	-2.41	-3.82	-6.05	-15.3	-1.26	-2.77
ODP [kg CFC11-eq.]	5.13E-10	1.91E-09	3.08E-10	1.32E-09	4.17E-11	1.27E-10	6.82E-10	4.94E-11	1.50E-10	3.04E-10	5.17E-10	1.64E-09	5.55E-11	1.65E-10
AP [kg SO ₂ -eq.]	0.163	0.534	0.0895	0.331	0.0186	0.0411	0.242	0.0221	0.0475	0.0878	0.151	0.538	0.0248	0.0514
EP [kg PO ₄ ³⁻ - eq.]	0.0228	0.0828	0.0133	0.0509	0.00251	0.00589	0.0355	0.00302	0.00718	0.0132	0.0222	0.0776	0.00340	0.00758
POCP [kg C ₂ H ₄ eq.]	0.222	0.571	0.107	0.360	0.0205	0.0468	0.313	0.0254	0.0495	0.0989	0.180	0.745	0.0299	0.0586
ADPE [kg Sb eq.]	2.92E-04	5.66E-04	1.67E-04	3.87E-04	1.30E-04	1.41E-04	4.85E-04	1.32E-04	1.43E-04	1.64E-04	2.76E-04	6.85E-04	1.34E-04	1.46E-04
ADPF [MJ]	560	1,850	317	1,110	69.9	143	914	83.9	172	306	515	1,950	94.9	182
Resource use	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
PERE [MJ]	657	2,960	418	1,520	85.7	182	1,380	106	259	433	701	2,550	121	240
PERM [MJ]	61.7	161	33.3	137	10.1	17.9	61.8	12.0	23.7	36.5	55.1	142	11.6	26.6
PERT [MJ]	718	3,120	451	1,650	95.8	200	1,450	118	282	469	756	2,690	132	267
PENRE [MJ]	536	1,850	310	1,080	68.2	139	897	80.7	168	298	503	1,880	92.2	177
PENRM [MJ]	45.6	74.3	17.9	62.0	4.23	9.30	48.4	6.14	10.5	18.8	30.6	143	6.06	11.6
PENRT [MJ]	582	1,920	328	1,150	72.4	148	946	86.9	178	317	534	2,020	98.3	189
SM [kg]	0.226	0.552	0.375	0.678	0.240	0.221	0.331	0.235	0.308	0.375	0.521	0.695	0.235	0.380
RSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NRSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FW [kg]	0.721	2.35	0.472	1.46	0.140	0.234	1.62	0.167	0.316	0.485	0.756	2.79	0.187	0.309
Waste categories and output flows	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
HWD [kg]	5.76E-04	0.00368	3.58E-04	0.00147	5.18E-05	1.41E-04	0.00134	7.21E-05	2.36E-04	3.87E-04	6.23E-04	0.00231	8.13E-05	1.84E-04
NHWD [kg]	8.96	26.1	4.51	15.2	0.902	1.96	13.2	1.06	2.04	4.07	7.55	30.7	1.28	2.44
RWD [kg]	0.00846	0.0276	0.00453	0.0155	9.86E-04	0.00202	0.0125	0.00117	0.00234	0.00431	0.00750	0.0286	0.00133	0.00262
CRU [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR [kg]	0.208	0.525	0.0994	0.330	0.0164	0.0433	0.252	0.0204	0.0456	0.0916	0.168	0.696	0.0240	0.0541
MER [kg]	7.29	34.3	4.42	17.5	0.578	1.73	13.3	0.752	2.31	4.47	7.63	28.9	0.890	2.21
EEE [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EET [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LCA results for products with a coloured or white paint finish (2 sides) [modules A1-A3]

Environmental impact	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
GWP Total [kg CO ₂ -eq.]	14.7	79.9	82.4	115	8.60	15.8	56.1	62.7	12.9	8.82	42.7	67.2	98.4	N/A
GWP Fossil [kg CO ₂ -eq.]	18.7	96.1	102	145	10.5	18.9	62.8	69.8	15.6	11.0	47.8	75.2	112	N/A
GWP Biogenic [kg CO ₂ -eq.]	-3.97	-16.2	-19.7	-30.2	-1.91	-3.11	-6.77	-7.03	-2.70	-2.15	-5.11	-8.05	-13.6	N/A
ODP [kg CFC11-eq.]	2.76E-10	1.23E-09	1.73E-09	2.56E-09	1.52E-10	2.80E-10	3.52E-10	5.93E-10	1.62E-10	1.19E-10	4.65E-10	9.36E-10	1.90E-09	N/A
AP [kg SO ₂ -eq.]	0.0847	0.412	0.466	0.671	0.0502	0.0891	0.252	0.282	0.0662	0.0468	0.189	0.328	0.522	N/A
EP [kg PO ₄ ³⁻ - eq.]	0.0123	0.0639	0.0771	0.109	0.00693	0.0126	0.0310	0.0412	0.00925	0.00663	0.0301	0.0482	0.0832	N/A
POCP [kg C ₂ H ₄ eq.]	0.106	0.493	0.446	0.683	0.0590	0.113	0.486	0.417	0.0939	0.0607	0.226	0.458	0.561	N/A
ADPE [kg Sb eq.]	1.67E-04	5.64E-04	5.48E-04	6.51E-04	2.07E-04	2.30E-04	4.00E-04	3.75E-04	1.61E-04	1.47E-04	2.95E-04	3.92E-04	5.62E-04	N/A
ADPF [MJ]	303	1,570	1,670	2,350	170	308	1,060	1,150	257	179	778	1,240	1,840	N/A
Resource use	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
PERE [MJ]	391	2,740	3,180	4,060	204	384	1,150	1,950	339	239	1,590	1,880	3,170	N/A
PERM [MJ]	39.0	137	196	272	17.5	28.1	38.5	57.4	25.8	20.9	37.6	49.6	122	N/A
PERT [MJ]	430	2,880	3,380	4,330	222	412	1,190	2,010	365	260	1,630	1,930	3,290	N/A
PENRE [MJ]	293	1,560	1,650	2,360	165	300	998	1,090	245	172	774	1,240	1,820	N/A
PENRM [MJ]	21.3	57.7	75.0	72.4	10.5	19.1	100	94.5	20.3	13.1	29.8	52.5	84.5	N/A
PENRT [MJ]	314	1,620	1,720	2,430	176	319	1,100	1,190	266	185	804	1,290	1,900	N/A
SM [kg]	0.385	1.19	1.51	2.25	0.176	0.190	0.392	0.508	0.261	0.261	0.380	0.284	0.253	N/A
RSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
NRSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
FW [kg]	0.489	2.98	2.69	3.87	0.261	0.476	1.85	2.27	0.471	0.329	1.72	2.04	2.72	N/A
Waste categories and output flows	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
HWD [kg]	3.14E-04	0.00297	0.00407	0.00448	1.51E-04	2.90E-04	6.67E-04	0.00209	2.71E-04	1.95E-04	0.00188	0.00188	0.00376	N/A
NHWD [kg]	4.33	21.6	19.0	30.8	2.52	4.78	19.8	16.7	3.75	2.45	9.65	19.8	24.6	N/A
RWD [kg]	0.00438	0.0213	0.0222	0.0318	0.00243	0.00443	0.0163	0.0164	0.00365	0.00250	0.0100	0.0176	0.0247	N/A
CRU [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
MFR [kg]	0.0988	0.446	0.404	0.615	0.0544	0.105	0.400	0.392	0.0760	0.0490	0.181	0.370	0.516	N/A
MER [kg]	3.75	25.4	33.9	41.9	2.03	3.94	9.50	18.5	2.84	1.97	14.3	19.6	36.8	N/A
EEE [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
EET [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A

LCA results for products with a coloured or white paint finish (2 sides) [modules A1-A3]

Environmental impact	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
GWP Total [kg CO ₂ -eq.]	N/A	N/A	74.0	100	76.0	95.7	151	45.2	63.7	3.40	5.67	N/A	N/A	N/A
GWP Fossil [kg CO ₂ -eq.]	N/A	N/A	79.3	109	83.4	106	170	50.2	71.1	3.93	6.89	N/A	N/A	N/A
GWP Biogenic [kg CO ₂ -eq.]	N/A	N/A	-5.28	-8.70	-7.33	-10.6	-18.2	-5.02	-7.38	-0.530	-1.22	N/A	N/A	N/A
ODP [kg CFC11-eq.]	N/A	N/A	4.25E-10	7.74E-10	2.40E-09	3.21E-09	5.50E-09	6.04E-10	1.00E-09	2.02E-11	9.04E-11	N/A	N/A	N/A
AP [kg SO ₂ -eq.]	N/A	N/A	0.343	0.480	0.373	0.489	0.821	0.210	0.316	0.0150	0.0302	N/A	N/A	N/A
EP [kg PO ₄ ³⁻ - eq.]	N/A	N/A	0.0368	0.0545	0.0393	0.0544	0.102	0.0334	0.0480	0.00194	0.00434	N/A	N/A	N/A
POCP [kg C ₂ H ₄ eq.]	N/A	N/A	0.189	0.341	0.154	0.288	0.574	0.241	0.401	0.0290	0.0447	N/A	N/A	N/A
ADPE [kg Sb eq.]	N/A	N/A	5.24E-04	6.26E-04	0.00228	0.00291	0.00420	3.02E-04	3.69E-04	1.21E-05	1.89E-05	N/A	N/A	N/A
ADPF [MJ]	N/A	N/A	1,070	1,520	1,110	1,470	2,440	819	1,170	66.3	114	N/A	N/A	N/A
Resource use	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
PERE [MJ]	N/A	N/A	771	1,250	736	1,130	2,140	1,610	1,860	74.4	139	N/A	N/A	N/A
PERM [MJ]	N/A	N/A	48.3	76.9	64.8	90.2	171	35.1	48.4	4.18	11.5	N/A	N/A	N/A
PERT [MJ]	N/A	N/A	819	1,320	801	1,220	2,310	1,640	1,910	78.6	151	N/A	N/A	N/A
PENRE [MJ]	N/A	N/A	1,120	1,580	1,180	1,540	2,490	818	1,160	61.4	110	N/A	N/A	N/A
PENRM [MJ]	N/A	N/A	30.9	54.0	18.2	35.4	97.7	27.8	44.2	7.49	8.00	N/A	N/A	N/A
PENRT [MJ]	N/A	N/A	1,150	1,630	1,190	1,570	2,590	846	1,210	68.9	118	N/A	N/A	N/A
SM [kg]	N/A	N/A	0.394	0.506	1.27	1.45	2.17	0.231	0.166	0.0754	0.111	N/A	N/A	N/A
RSF [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
NRSF [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
FW [kg]	N/A	N/A	1.19	1.74	1.07	1.44	2.56	1.65	1.97	0.125	0.186	N/A	N/A	N/A
Waste categories and output flows	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
HWD [kg]	N/A	N/A	4.44E-04	8.15E-04	4.24E-04	7.64E-04	0.00116	0.00188	0.00188	4.42E-05	1.01E-04	N/A	N/A	N/A
NHWD [kg]	N/A	N/A	16.5	24.2	13.3	19.0	31.8	10.6	17.7	1.16	1.80	N/A	N/A	N/A
RWD [kg]	N/A	N/A	0.0336	0.0433	0.0272	0.0324	0.0458	0.0106	0.0159	0.00101	0.00167	N/A	N/A	N/A
CRU [kg]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
MFR [kg]	N/A	N/A	0.165	0.306	0.128	0.252	0.511	0.192	0.322	0.0238	0.0362	N/A	N/A	N/A
MER [kg]	N/A	N/A	6.00	11.3	5.48	10.4	25.4	15.6	19.7	0.578	1.34	N/A	N/A	N/A
EEE [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
EET [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A

LCA results for products with a black paint finish (1 side) [modules A1-A3]

Environmental impact	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
GWP Total [kg CO ₂ -eq.]	N/A	N/A	N/A	N/A	3.66	6.28	10.6	15.6	21.1	72.1	3.87	6.52	9.41	16.5
GWP Fossil [kg CO ₂ -eq.]	N/A	N/A	N/A	N/A	4.77	8.73	14.7	20.9	28.1	90.3	5.09	9.04	13.4	21.9
GWP Biogenic [kg CO ₂ -eq.]	N/A	N/A	N/A	N/A	-1.11	-2.45	-4.11	-5.26	-6.93	-18.2	-1.22	-2.51	-4.02	-5.39
ODP [kg CFC11-eq.]	N/A	N/A	N/A	N/A	5.44E-11	1.66E-10	3.01E-10	4.32E-10	5.93E-10	2.07E-09	5.85E-11	1.73E-10	2.70E-10	4.54E-10
AP [kg SO ₂ -eq.]	N/A	N/A	N/A	N/A	0.0218	0.0446	0.0760	0.112	0.152	0.486	0.0233	0.0463	0.0698	0.117
EP [kg PO ₄ ³⁻ - eq.]	N/A	N/A	N/A	N/A	0.00291	0.00650	0.0112	0.0162	0.0219	0.0768	0.00309	0.00674	0.0103	0.0170
POCP [kg C ₂ H ₄ eq.]	N/A	N/A	N/A	N/A	0.0314	0.0579	0.108	0.158	0.220	0.527	0.0346	0.0605	0.0964	0.166
ADPE [kg Sb eq.]	N/A	N/A	N/A	N/A	1.32E-04	1.42E-04	1.59E-04	2.53E-04	2.75E-04	5.10E-04	1.33E-04	1.42E-04	1.55E-04	2.56E-04
ADPF [MJ]	N/A	N/A	N/A	N/A	77.2	139	236	336	454	1,410	82.7	144	215	353
Resource use	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
PERE [MJ]	N/A	N/A	N/A	N/A	75.0	139	234	326	438	1,730	80.2	144	213	346
PERM [MJ]	N/A	N/A	N/A	N/A	9.38	21.6	35.7	46.0	60.9	159	9.50	22.1	36.1	46.6
PERT [MJ]	N/A	N/A	N/A	N/A	84.4	161	270	372	499	1,890	89.7	166	249	393
PENRE [MJ]	N/A	N/A	N/A	N/A	76.3	138	234	332	448	1,420	83.2	143	213	349
PENRM [MJ]	N/A	N/A	N/A	N/A	3.50	6.05	10.6	15.9	22.3	39.6	2.32	6.29	10.1	16.4
PENRT [MJ]	N/A	N/A	N/A	N/A	79.8	144	245	348	471	1,460	85.5	149	223	366
SM [kg]	N/A	N/A	N/A	N/A	0.184	0.260	0.370	0.273	0.226	0.552	0.184	0.260	0.370	0.273
RSF [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
NRSF [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
FW [kg]	N/A	N/A	N/A	N/A	0.138	0.201	0.316	0.417	0.547	1.91	0.147	0.207	0.289	0.444
Waste categories and output flows	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
HWD [kg]	N/A	N/A	N/A	N/A	1.80E-05	4.04E-05	7.31E-05	1.10E-04	1.54E-04	9.95E-04	1.81E-05	4.23E-05	6.78E-05	1.16E-04
NHWD [kg]	N/A	N/A	N/A	N/A	0.985	1.78	3.26	4.75	6.55	18.3	1.13	1.86	2.89	5.01
RWD [kg]	N/A	N/A	N/A	N/A	0.00104	0.00192	0.00338	0.00476	0.00645	0.0196	0.00111	0.00199	0.00307	0.00499
CRU [kg]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
MFR [kg]	N/A	N/A	N/A	N/A	0.0298	0.0635	0.119	0.174	0.243	0.569	0.0328	0.0664	0.106	0.183
MER [kg]	N/A	N/A	N/A	N/A	0.786	1.96	3.58	5.33	7.37	35.3	0.783	2.05	3.19	5.67
EEE [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
EET [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0

LCA results for products with a black paint finish (1 side) [modules A1-A3]

Environmental impact	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
GWP Total [kg CO ₂ -eq.]	21.1	70.6	12.1	41.0	2.74	5.52	36.9	3.31	6.47	11.6	19.5	79.0	3.79	6.69
GWP Fossil [kg CO ₂ -eq.]	28.1	88.9	16.1	55.5	3.90	7.54	44.5	4.64	9.08	15.7	26.0	96.8	5.13	9.66
GWP Biogenic [kg CO ₂ -eq.]	-6.97	-18.2	-3.97	-14.6	-1.16	-2.02	-7.52	-1.33	-2.60	-4.16	-6.54	-17.8	-1.34	-2.97
ODP [kg CFC11-eq.]	5.92E-10	2.06E-09	3.42E-10	1.45E-09	4.73E-11	1.43E-10	7.57E-10	5.74E-11	1.68E-10	3.40E-10	5.75E-10	1.89E-09	6.35E-11	1.85E-10
AP [kg SO ₂ -eq.]	0.152	0.477	0.0819	0.306	0.0176	0.0383	0.216	0.0211	0.0444	0.0813	0.138	0.496	0.0232	0.0480
EP [kg PO ₄ ³⁻ - eq.]	0.0219	0.0751	0.0125	0.0483	0.00241	0.00564	0.0324	0.00292	0.00682	0.0126	0.0210	0.0737	0.00323	0.00727
POCP [kg C ₂ H ₄ eq.]	0.220	0.525	0.102	0.338	0.0212	0.0456	0.300	0.0267	0.0482	0.0949	0.172	0.735	0.0306	0.0571
ADPE [kg Sb eq.]	2.75E-04	5.07E-04	1.57E-04	3.52E-04	1.29E-04	1.37E-04	4.57E-04	1.31E-04	1.38E-04	1.55E-04	2.59E-04	6.24E-04	1.32E-04	1.42E-04
ADPF [MJ]	455	1,390	254	884	61.5	119	715	73.6	141	247	410	1,570	81.7	151
Resource use	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
PERE [MJ]	440	1,680	284	988	65.1	130	881	78.9	176	293	470	1,700	88.6	171
PERM [MJ]	61.7	161	33.3	137	10.1	17.9	61.8	12.0	23.7	36.5	55.1	142	11.6	26.6
PERT [MJ]	502	1,840	317	1,130	75.2	147	942	90.8	200	330	525	1,840	100	198
PENRE [MJ]	449	1,400	254	882	61.2	118	711	72.9	140	245	408	1,550	81.1	150
PENRM [MJ]	22.4	39.9	9.50	30.8	2.32	4.85	27.2	3.16	5.40	9.58	15.7	70.7	3.30	5.96
PENRT [MJ]	471	1,440	263	913	63.5	123	738	76.1	145	255	424	1,620	84.4	156
SM [kg]	0.226	0.552	0.375	0.678	0.240	0.221	0.331	0.235	0.308	0.375	0.521	0.695	0.235	0.380
RSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NRSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FW [kg]	0.555	1.85	0.383	1.16	0.124	0.197	1.33	0.147	0.274	0.404	0.609	2.23	0.162	0.261
Waste categories and output flows	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
HWD [kg]	1.54E-04	9.74E-04	9.56E-05	3.92E-04	1.39E-05	3.79E-05	3.56E-04	1.93E-05	6.29E-05	1.03E-04	1.66E-04	6.15E-04	2.17E-05	4.94E-05
NHWD [kg]	6.54	18.2	3.16	10.8	0.700	1.43	9.23	0.832	1.49	2.91	5.31	22.4	0.969	1.78
RWD [kg]	0.00644	0.0195	0.00339	0.0114	8.24E-04	0.00156	0.00894	9.76E-04	0.00178	0.00323	0.00557	0.0215	0.00108	0.00204
CRU [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR [kg]	0.242	0.568	0.111	0.364	0.0199	0.0496	0.282	0.0251	0.0522	0.103	0.188	0.808	0.0288	0.0620
MER [kg]	7.33	34.3	4.43	17.6	0.581	1.74	13.4	0.757	2.32	4.48	7.65	29.0	0.895	2.22
EEE [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EET [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LCA results for products with a black paint finish (1 side) [modules A1-A3]

Environmental impact	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
GWP Total [kg CO ₂ -eq.]	11.3	58.7	59.6	83.5	6.77	12.2	44.3	48.7	10.2	6.96	31.4	49.4	73.8	N/A
GWP Fossil [kg CO ₂ -eq.]	15.7	75.0	80.4	114	8.84	15.6	51.3	57.2	13.2	9.30	36.4	57.1	88.5	N/A
GWP Biogenic [kg CO ₂ -eq.]	-4.35	-16.4	-20.8	-30.2	-2.07	-3.39	-7.06	-8.49	-2.99	-2.34	-5.03	-7.71	-14.7	N/A
ODP [kg CFC11-eq.]	3.14E-10	1.33E-09	1.88E-09	2.69E-09	1.70E-10	3.13E-10	4.16E-10	7.22E-10	1.90E-10	1.37E-10	5.00E-10	9.97E-10	2.07E-09	N/A
AP [kg SO ₂ -eq.]	0.0788	0.361	0.423	0.595	0.0465	0.0817	0.221	0.260	0.0613	0.0435	0.163	0.279	0.471	N/A
EP [kg PO ₄ ³⁻ - eq.]	0.0118	0.0571	0.0705	0.0983	0.00660	0.0119	0.0278	0.0382	0.00875	0.00627	0.0260	0.0422	0.0765	N/A
POCP [kg C ₂ H ₄ eq.]	0.104	0.456	0.416	0.615	0.0570	0.109	0.502	0.438	0.0956	0.0613	0.210	0.419	0.522	N/A
ADPE [kg Sb eq.]	1.58E-04	5.14E-04	5.04E-04	5.76E-04	2.02E-04	2.20E-04	3.68E-04	3.49E-04	1.54E-04	1.43E-04	2.73E-04	3.44E-04	5.06E-04	N/A
ADPF [MJ]	249	1,180	1,250	1,770	140	249	866	912	213	149	567	921	1,400	N/A
Resource use	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
PERE [MJ]	274	1,690	1,830	2,480	146	269	808	1,240	235	165	935	1,140	1,900	N/A
PERM [MJ]	39.0	137	196	272	17.5	28.1	38.5	57.4	25.8	20.9	37.6	49.6	122	N/A
PERT [MJ]	313	1,830	2,030	2,750	163	297	846	1,300	260	186	972	1,190	2,020	N/A
PENRE [MJ]	247	1,180	1,250	1,790	139	247	833	896	209	147	564	915	1,400	N/A
PENRM [MJ]	10.7	32.6	37.1	41.0	5.58	10.0	65.1	46.7	10.9	7.02	19.2	36.0	43.3	N/A
PENRT [MJ]	258	1,210	1,290	1,830	145	257	898	942	220	154	583	951	1,440	N/A
SM [kg]	0.385	1.19	1.51	2.25	0.176	0.190	0.392	0.508	0.261	0.261	0.380	0.284	0.253	N/A
RSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
NRSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
FW [kg]	0.405	2.55	2.31	3.25	0.215	0.385	1.44	1.97	0.394	0.279	1.49	1.58	2.29	N/A
Waste categories and output flows	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
HWD [kg]	8.40E-05	7.86E-04	0.00107	0.00119	4.07E-05	7.78E-05	1.78E-04	5.50E-04	7.21E-05	5.19E-05	4.94E-04	4.97E-04	9.95E-04	N/A
NHWD [kg]	3.16	14.5	13.5	20.6	1.81	3.39	14.0	12.7	2.78	1.81	6.42	12.8	17.3	N/A
RWD [kg]	0.00337	0.0145	0.0150	0.0217	0.00187	0.00334	0.0128	0.0122	0.00284	0.00195	0.00643	0.0120	0.0168	N/A
CRU [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
MFR [kg]	0.114	0.486	0.443	0.650	0.0618	0.119	0.485	0.486	0.0907	0.0579	0.197	0.397	0.564	N/A
MER [kg]	3.77	25.5	33.9	41.9	2.04	3.95	9.59	18.6	2.85	1.98	14.4	19.6	36.9	N/A
EEE [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
EET [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A

LCA results for products with a black paint finish (1 side) [modules A1-A3]

Environmental impact	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
GWP Total [kg CO ₂ -eq.]	N/A	N/A	68.5	89.9	71.4	86.7	135	33.7	48.0	2.90	4.36	N/A	N/A	N/A
GWP Fossil [kg CO ₂ -eq.]	N/A	N/A	74.3	99.4	78.9	97.8	155	38.8	55.7	3.51	5.71	N/A	N/A	N/A
GWP Biogenic [kg CO ₂ -eq.]	N/A	N/A	-5.79	-9.53	-7.58	-11.1	-20.2	-5.19	-7.69	-0.612	-1.35	N/A	N/A	N/A
ODP [kg CFC11-eq.]	N/A	N/A	4.80E-10	8.71E-10	2.44E-09	3.28E-09	5.71E-09	6.56E-10	1.09E-09	2.60E-11	1.04E-10	N/A	N/A	N/A
AP [kg SO ₂ -eq.]	N/A	N/A	0.333	0.458	0.363	0.468	0.790	0.184	0.279	0.0143	0.0277	N/A	N/A	N/A
EP [kg PO ₄ ³⁻ - eq.]	N/A	N/A	0.0359	0.0526	0.0382	0.0523	0.101	0.0296	0.0433	0.00186	0.00412	N/A	N/A	N/A
POCP [kg C ₂ H ₄ eq.]	N/A	N/A	0.184	0.330	0.147	0.272	0.545	0.225	0.374	0.0333	0.0442	N/A	N/A	N/A
ADPE [kg Sb eq.]	N/A	N/A	5.08E-04	5.97E-04	0.00226	0.00289	0.00415	2.78E-04	3.30E-04	1.12E-05	1.53E-05	N/A	N/A	N/A
ADPF [MJ]	N/A	N/A	979	1,350	1,030	1,320	2,180	608	890	59.6	93.2	N/A	N/A	N/A
Resource use	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
PERE [MJ]	N/A	N/A	596	921	574	834	1,680	954	1,160	55.6	97.7	N/A	N/A	N/A
PERM [MJ]	N/A	N/A	48.3	76.9	64.8	90.2	171	35.1	48.4	4.18	11.5	N/A	N/A	N/A
PERT [MJ]	N/A	N/A	644	998	639	925	1,850	989	1,210	59.7	109	N/A	N/A	N/A
PENRE [MJ]	N/A	N/A	1,040	1,430	1,100	1,400	2,260	611	894	57.9	92.4	N/A	N/A	N/A
PENRM [MJ]	N/A	N/A	15.6	27.5	8.79	18.1	46.3	14.5	23.4	3.93	4.07	N/A	N/A	N/A
PENRT [MJ]	N/A	N/A	1,060	1,460	1,110	1,410	2,310	625	917	61.8	96.5	N/A	N/A	N/A
SM [kg]	N/A	N/A	0.394	0.506	1.27	1.45	2.17	0.231	0.166	0.0754	0.111	N/A	N/A	N/A
RSF [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
NRSF [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
FW [kg]	N/A	N/A	1.05	1.47	0.954	1.22	2.12	1.41	1.58	0.106	0.148	N/A	N/A	N/A
Waste categories and output flows	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
HWD [kg]	N/A	N/A	1.19E-04	2.19E-04	1.14E-04	2.05E-04	3.18E-04	4.95E-04	4.98E-04	1.18E-05	2.70E-05	N/A	N/A	N/A
NHWD [kg]	N/A	N/A	14.4	20.2	11.5	15.4	25.3	7.38	12.2	0.947	1.30	N/A	N/A	N/A
RWD [kg]	N/A	N/A	0.0320	0.0402	0.0258	0.0295	0.0406	0.00693	0.0110	8.71E-04	0.00128	N/A	N/A	N/A
CRU [kg]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
MFR [kg]	N/A	N/A	0.189	0.348	0.142	0.279	0.568	0.211	0.351	0.0321	0.0419	N/A	N/A	N/A
MER [kg]	N/A	N/A	6.02	11.3	5.50	10.4	25.5	15.6	19.7	0.586	1.35	N/A	N/A	N/A
EEE [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
EET [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A

LCA results for products with a black paint finish (2 sides) [modules A1-A3]

Environmental impact	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
GWP Total [kg CO ₂ -eq.]	N/A	N/A	N/A	N/A	4.68	8.58	14.9	21.8	29.8	95.1	5.21	8.92	13.2	23.1
GWP Fossil [kg CO ₂ -eq.]	N/A	N/A	N/A	N/A	5.83	11.1	19.1	27.2	36.9	114	6.55	11.5	17.3	28.7
GWP Biogenic [kg CO ₂ -eq.]	N/A	N/A	N/A	N/A	-1.15	-2.50	-4.22	-5.40	-7.10	-19.3	-1.34	-2.57	-4.09	-5.55
ODP [kg CFC11-eq.]	N/A	N/A	N/A	N/A	4.64E-11	1.47E-10	2.64E-10	3.78E-10	5.17E-10	1.90E-09	5.22E-11	1.53E-10	2.37E-10	3.98E-10
AP [kg SO ₂ -eq.]	N/A	N/A	N/A	N/A	0.0257	0.0528	0.0913	0.134	0.182	0.573	0.0287	0.0549	0.0832	0.141
EP [kg PO ₄ ³⁻ - eq.]	N/A	N/A	N/A	N/A	0.00312	0.00694	0.0120	0.0173	0.0236	0.0820	0.00347	0.00721	0.0110	0.0183
POCP [kg C ₂ H ₄ eq.]	N/A	N/A	N/A	N/A	0.0501	0.0990	0.184	0.270	0.376	0.944	0.0588	0.104	0.164	0.285
ADPE [kg Sb eq.]	N/A	N/A	N/A	N/A	1.38E-04	1.55E-04	1.84E-04	2.90E-04	3.25E-04	6.45E-04	1.41E-04	1.56E-04	1.77E-04	2.94E-04
ADPF [MJ]	N/A	N/A	N/A	N/A	95.7	181	315	450	613	1,840	108	188	285	474
Resource use	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
PERE [MJ]	N/A	N/A	N/A	N/A	82.9	154	262	365	492	1,890	92.0	160	237	388
PERM [MJ]	N/A	N/A	N/A	N/A	9.38	21.6	35.7	46.0	60.9	159	9.50	22.1	36.1	46.6
PERT [MJ]	N/A	N/A	N/A	N/A	92.3	176	297	411	553	2,050	101	182	273	435
PENRE [MJ]	N/A	N/A	N/A	N/A	92.7	176	306	437	593	1,830	108	183	276	461
PENRM [MJ]	N/A	N/A	N/A	N/A	6.55	11.5	20.7	31.1	43.8	78.2	4.19	12.0	19.7	32.1
PENRT [MJ]	N/A	N/A	N/A	N/A	99.2	188	327	468	637	1,910	112	195	296	493
SM [kg]	N/A	N/A	N/A	N/A	0.184	0.260	0.370	0.273	0.226	0.552	0.184	0.260	0.370	0.273
RSF [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
NRSF [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
FW [kg]	N/A	N/A	N/A	N/A	0.162	0.249	0.405	0.548	0.728	2.40	0.179	0.257	0.368	0.582
Waste categories and output flows	Beau Small	Beau Large	Belle Small	Belle Large	Coral 400	Coral 600	Coral 800	Coral 1000	Coral 1200	Coral 1600	Floral 400	Floral 600	Floral 800	Floral 1000
HWD [kg]	N/A	N/A	N/A	N/A	1.80E-05	4.03E-05	7.29E-05	1.10E-04	1.54E-04	9.94E-04	1.80E-05	4.22E-05	6.76E-05	1.16E-04
NHWD [kg]	N/A	N/A	N/A	N/A	1.48	2.87	5.29	7.70	10.7	29.6	1.82	3.00	4.67	8.14
RWD [kg]	N/A	N/A	N/A	N/A	0.00140	0.00273	0.00489	0.00697	0.00953	0.0279	0.00160	0.00284	0.00441	0.00733
CRU [kg]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
MFR [kg]	N/A	N/A	N/A	N/A	0.0241	0.0552	0.103	0.151	0.210	0.523	0.0282	0.0578	0.0918	0.159
MER [kg]	N/A	N/A	N/A	N/A	0.780	1.95	3.56	5.30	7.34	35.3	0.778	2.05	3.18	5.64
EEE [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0
EET [MJ]	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0

LCA results for products with a black paint finish (2 sides) [modules A1-A3]

Environmental impact	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
GWP Total [kg CO ₂ -eq.]	29.8	93.6	16.3	55.6	3.47	7.36	48.8	4.22	8.44	15.6	26.7	108	4.86	8.99
GWP Fossil [kg CO ₂ -eq.]	36.9	113	20.5	70.5	4.66	9.42	56.7	5.57	11.1	19.8	33.4	126	6.24	12.0
GWP Biogenic [kg CO ₂ -eq.]	-7.14	-19.4	-4.11	-14.9	-1.19	-2.06	-7.91	-1.35	-2.63	-4.24	-6.75	-18.5	-1.38	-3.02
ODP [kg CFC11-eq.]	5.16E-10	1.89E-09	3.07E-10	1.32E-09	4.16E-11	1.28E-10	6.62E-10	4.96E-11	1.50E-10	3.05E-10	5.16E-10	1.65E-09	5.51E-11	1.65E-10
AP [kg SO ₂ -eq.]	0.182	0.564	0.0973	0.358	0.0203	0.0449	0.260	0.0244	0.0512	0.0954	0.164	0.599	0.0272	0.0562
EP [kg PO ₄ ³⁻ - eq.]	0.0235	0.0802	0.0134	0.0511	0.00257	0.00600	0.0349	0.00310	0.00717	0.0133	0.0224	0.0792	0.00346	0.00770
POCP [kg C ₂ H ₄ eq.]	0.375	0.939	0.178	0.601	0.0344	0.0785	0.512	0.0430	0.0831	0.166	0.301	1.25	0.0499	0.0984
ADPE [kg Sb eq.]	3.25E-04	6.42E-04	1.82E-04	4.38E-04	1.33E-04	1.48E-04	5.26E-04	1.36E-04	1.50E-04	1.78E-04	3.01E-04	7.93E-04	1.38E-04	1.55E-04
ADPF [MJ]	613	1,820	333	1,150	74.6	152	932	89.8	177	320	543	2,090	101	193
Resource use	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
PERE [MJ]	494	1,840	311	1,080	70.7	141	970	85.5	188	318	517	1,880	96.7	186
PERM [MJ]	61.7	161	33.3	137	10.1	17.9	61.8	12.0	23.7	36.5	55.1	142	11.6	26.6
PERT [MJ]	556	2,000	345	1,220	80.8	159	1,030	97.5	212	355	572	2,020	108	212
PENRE [MJ]	593	1,810	327	1,130	73.2	149	911	87.1	173	313	533	2,030	98.5	189
PENRM [MJ]	44.1	78.6	18.1	60.7	4.23	9.10	53.6	5.99	10.1	18.3	30.6	141	6.17	11.3
PENRT [MJ]	637	1,890	346	1,190	77.4	158	965	93.1	183	331	563	2,170	105	201
SM [kg]	0.226	0.552	0.375	0.678	0.240	0.221	0.331	0.235	0.308	0.375	0.521	0.695	0.235	0.380
RSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NRSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FW [kg]	0.736	2.34	0.472	1.47	0.141	0.235	1.61	0.168	0.315	0.486	0.760	2.83	0.187	0.309
Waste categories and output flows	Floral 1200	Floral 1600	Flax 800	Flax 1500	Hinaki 500	Hinaki 900	Hinaki 1400	Kina 440	Kina 600	Kina 800	Kina 1000	Kina 1400	Koura 500	Koura 750
HWD [kg]	1.54E-04	9.73E-04	9.54E-05	3.92E-04	1.39E-05	3.78E-05	3.56E-04	1.93E-05	6.28E-05	1.03E-04	1.66E-04	6.14E-04	2.17E-05	4.93E-05
NHWD [kg]	10.6	29.4	5.20	17.7	1.05	2.30	14.8	1.26	2.40	4.78	8.75	36.0	1.48	2.86
RWD [kg]	0.00951	0.0277	0.00490	0.0166	0.00108	0.00222	0.0131	0.00129	0.00247	0.00463	0.00813	0.0317	0.00145	0.00286
CRU [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR [kg]	0.210	0.520	0.0991	0.331	0.0164	0.0435	0.246	0.0206	0.0461	0.0922	0.168	0.699	0.0239	0.0545
MER [kg]	7.29	34.3	4.42	17.5	0.578	1.73	13.3	0.753	2.31	4.47	7.63	28.9	0.890	2.21
EEE [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EET [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LCA results for products with a black paint finish (2 sides) [modules A1-A3]

Environmental impact	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
GWP Total [kg CO ₂ -eq.]	15.5	78.0	77.6	111	9.08	16.7	56.2	63.4	13.6	9.20	39.6	66.1	96.3	N/A
GWP Fossil [kg CO ₂ -eq.]	19.9	95.4	98.9	143	11.2	20.2	63.4	72.2	16.6	11.6	44.9	74.4	112	N/A
GWP Biogenic [kg CO ₂ -eq.]	-4.43	-17.5	-21.3	-31.9	-2.14	-3.54	-7.23	-8.73	-3.04	-2.38	-5.29	-8.31	-15.5	N/A
ODP [kg CFC11-eq.]	2.77E-10	1.20E-09	1.72E-09	2.51E-09	1.51E-10	2.78E-10	3.11E-10	5.93E-10	1.60E-10	1.18E-10	4.35E-10	8.68E-10	1.89E-09	N/A
AP [kg SO ₂ -eq.]	0.0936	0.435	0.487	0.702	0.0549	0.0980	0.264	0.312	0.0733	0.0513	0.192	0.341	0.554	N/A
EP [kg PO ₄ ³⁻ - eq.]	0.0126	0.0617	0.0740	0.105	0.00707	0.0128	0.0301	0.0409	0.00940	0.00670	0.0277	0.0457	0.0811	N/A
POCP [kg C ₂ H ₄ eq.]	0.179	0.804	0.740	1.12	0.0984	0.189	0.721	0.703	0.156	0.101	0.357	0.717	0.929	N/A
ADPE [kg Sb eq.]	1.82E-04	6.27E-04	6.09E-04	7.38E-04	2.15E-04	2.46E-04	4.38E-04	4.35E-04	1.74E-04	1.55E-04	3.20E-04	4.40E-04	6.39E-04	N/A
ADPF [MJ]	325	1,540	1,580	2,290	182	331	1,080	1,180	274	189	717	1,230	1,810	N/A
Resource use	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
PERE [MJ]	300	1,830	1,950	2,690	161	299	893	1,330	259	181	996	1,270	2,050	N/A
PERM [MJ]	39.0	137	196	272	17.5	28.1	38.5	57.4	25.8	20.9	37.6	49.6	122	N/A
PERT [MJ]	339	1,970	2,150	2,960	178	327	931	1,390	285	202	1,030	1,320	2,170	N/A
PENRE [MJ]	317	1,530	1,560	2,290	178	324	989	1,130	263	183	703	1,200	1,790	N/A
PENRM [MJ]	20.7	64.3	73.3	81.2	10.6	19.4	129	92.8	20.9	13.4	37.5	71.2	85.6	N/A
PENRT [MJ]	337	1,590	1,640	2,370	189	343	1,120	1,220	284	196	740	1,270	1,870	N/A
SM [kg]	0.385	1.19	1.51	2.25	0.176	0.190	0.392	0.508	0.261	0.261	0.380	0.284	0.253	N/A
RSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
NRSF [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
FW [kg]	0.492	2.96	2.69	3.85	0.263	0.478	1.73	2.28	0.473	0.331	1.68	1.97	2.77	N/A
Waste categories and output flows	Koura 1000	Koura 1600	Koura 2000	Koura 2400	Nikau Half	Nikau Full	Snowflake 800	Snowflake 1000	Ulu Full	Ulu Half	Sola 800	Sola 1000	Sola 1350	Dunes
HWD [kg]	8.38E-05	7.85E-04	0.00107	0.00119	4.06E-05	7.76E-05	1.77E-04	5.50E-04	7.19E-05	5.18E-05	4.93E-04	4.97E-04	9.94E-04	N/A
NHWD [kg]	5.12	24.1	22.0	34.4	2.91	5.52	19.8	19.7	4.36	2.85	10.3	20.7	28.1	N/A
RWD [kg]	0.00484	0.0215	0.0214	0.0317	0.00268	0.00492	0.0170	0.0174	0.00402	0.00273	0.00931	0.0178	0.0249	N/A
CRU [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
MFR [kg]	0.0995	0.437	0.405	0.605	0.0543	0.104	0.350	0.394	0.0752	0.0485	0.170	0.344	0.514	N/A
MER [kg]	3.75	25.4	33.9	41.9	2.03	3.94	9.45	18.5	2.84	1.97	14.3	19.5	36.8	N/A
EEE [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
EET [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A

LCA results for products with a black paint finish (2 sides) [modules A1-A3]

Environmental impact	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
GWP Total [kg CO ₂ -eq.]	N/A	N/A	75.4	103	76.8	97.4	157	43.5	64.4	3.69	6.10	N/A	N/A	N/A
GWP Fossil [kg CO ₂ -eq.]	N/A	N/A	81.4	113	84.6	109	178	49.3	73.2	4.33	7.50	N/A	N/A	N/A
GWP Biogenic [kg CO ₂ -eq.]	N/A	N/A	-5.99	-9.96	-7.80	-11.5	-20.7	-5.85	-8.79	-0.638	-1.40	N/A	N/A	N/A
ODP [kg CFC11-eq.]	N/A	N/A	4.24E-10	7.69E-10	2.40E-09	3.20E-09	5.51E-09	5.98E-10	9.93E-10	1.98E-11	8.99E-11	N/A	N/A	N/A
AP [kg SO ₂ -eq.]	N/A	N/A	0.358	0.505	0.383	0.508	0.870	0.222	0.343	0.0173	0.0340	N/A	N/A	N/A
EP [kg PO ₄ ³⁻ - eq.]	N/A	N/A	0.0373	0.0552	0.0394	0.0547	0.105	0.0321	0.0476	0.00203	0.00448	N/A	N/A	N/A
POCP [kg C ₂ H ₄ eq.]	N/A	N/A	0.308	0.560	0.245	0.465	0.949	0.401	0.667	0.0481	0.0750	N/A	N/A	N/A
ADPE [kg Sb eq.]	N/A	N/A	5.49E-04	6.72E-04	0.00230	0.00295	0.00428	3.35E-04	4.25E-04	1.60E-05	2.53E-05	N/A	N/A	N/A
ADPF [MJ]	N/A	N/A	1,110	1,590	1,130	1,520	2,580	793	1,200	73.7	125	N/A	N/A	N/A
Resource use	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
PERE [MJ]	N/A	N/A	641	1,010	611	908	1,820	1,040	1,300	61.7	111	N/A	N/A	N/A
PERM [MJ]	N/A	N/A	48.3	76.9	64.8	90.2	171	35.1	48.4	4.18	11.5	N/A	N/A	N/A
PERT [MJ]	N/A	N/A	689	1,080	676	998	1,990	1,070	1,340	65.8	122	N/A	N/A	N/A
PENRE [MJ]	N/A	N/A	1,160	1,650	1,200	1,590	2,640	791	1,200	68.8	121	N/A	N/A	N/A
PENRM [MJ]	N/A	N/A	30.9	54.8	19.1	37.7	94.4	28.2	46.0	7.81	8.09	N/A	N/A	N/A
PENRT [MJ]	N/A	N/A	1,190	1,700	1,220	1,620	2,740	819	1,240	76.6	130	N/A	N/A	N/A
SM [kg]	N/A	N/A	0.394	0.506	1.27	1.45	2.17	0.231	0.166	0.0754	0.111	N/A	N/A	N/A
RSF [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
NRSF [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
FW [kg]	N/A	N/A	1.19	1.74	1.07	1.45	2.59	1.64	1.96	0.125	0.189	N/A	N/A	N/A
Waste categories and output flows	Hills	Pebbles	Maru Small	Maru Large	Navicula Small	Navicula Medium	Navicula Large	Pola 800	Pola 1000	Sunflower Small	Sunflower Large	BOL Crystal	BOL Leaf	BOL Wave
HWD [kg]	N/A	N/A	1.19E-04	2.18E-04	1.14E-04	2.05E-04	3.17E-04	4.94E-04	4.97E-04	1.17E-05	2.69E-05	N/A	N/A	N/A
NHWD [kg]	N/A	N/A	17.7	26.3	14.1	20.6	35.8	12.2	20.3	1.34	2.12	N/A	N/A	N/A
RWD [kg]	N/A	N/A	0.0344	0.0448	0.0277	0.0334	0.0486	0.0104	0.0169	0.00116	0.00189	N/A	N/A	N/A
CRU [kg]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
MFR [kg]	N/A	N/A	0.165	0.305	0.127	0.249	0.515	0.191	0.320	0.0233	0.0361	N/A	N/A	N/A
MER [kg]	N/A	N/A	6.00	11.3	5.48	10.4	25.4	15.6	19.7	0.577	1.34	N/A	N/A	N/A
EEE [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A
EET [MJ]	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A

Additional environmental information

All products comply with the European Union's RoHS Directive (2011/65/EU) and are formaldehyde-free. Our manufacturing site complies with local government requirements.

The use stage has been excluded from this EPD as it varies significantly depending on the type of bulb selected and the use pattern of the light. David Trubridge recommends that you choose a high-efficiency bulb / lamp, such as a light-emitting diode (LED), as the environmental impacts during use will often be many times larger than the impacts of producing and disposing of the light fitting.

David Trubridge used to supply lights fully assembled. However, past LCA work showed that this led to significant environmental impacts from packaging and distribution. All lights are now supplied in kitset form. We call this design framework **Seed System**.

The Seed System concept is simple: You receive the seed of a lightshade, and have fun and satisfaction making it grow yourself. Your tree fills into the space; the patterns of its leaves calm with their shade. It nourishes with its fruit, and keeps the balance of life. The idea ripples out and spreads to the world, which becomes a brighter place.



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