



Environmental Product Declaration

In accordance with ISO 14025:2006 and ISO 21930:2017



Environmental Product Declaration for Resinous Floor Coating products manufactured by Crown Polymers at their facility in Santa Fe Springs, California

ADMINISTRATIVE INFORMATION

Declaration Owner:	Crown Polymers	
	14722 Spring Ave, Santa Fe Springs, CA 90670, USA	
	(847) 659-0300	
	https://crownpolymers.com	
EPD Declaration Information:	Declared unit: 1 m ² of covered and protected flooring surface	
	Declaration number: CP-1729500-20082026	
	Date of issue: 20.08.2026	
	Date of expiration: 5 years: valid until 20.08.2031	
	Market of applicability: North America	
	EPD type: Facility-specific	
	EPD scope: cradle-to-gate (A1-A3)	
	CSI MasterFormat # 09 96 56 Epoxy coatings, 09 67 00 Fluid-applied flooring	
	Year of reported manufacturer primary data: 2024	
LCA/LCI Information:	LCA software & version: lca.tools version EPD2022.03	
	LCI databases & version: Ecoinvent 3.10.1	
	LCIA method & version: TRACI 2.2, IPCC (AR6), CML (2016)	
EPD Program Operator:	Labeling Sustainability	
	200 S. Rosemary Ave., West Palm Beach, FL 33401	
	(561) 312-2664	
	https://www.labelingsustainability.com	
Product Category Rule:	Sustainable Minds Part A PCR: LCA Calculation Rules and Report Requirements, Version December 2025	
	Sustainable Minds Part B PCR: Product Group Definition for Resinous Floor Coatings, Part B #25-007, Version 2.0, February 2025	
	PCR Program Operator: Sustainable Minds	
Independent LCA Reviewer and EPD Verifier:	The life cycle assessment was independently verified in accordance with ISO 14040/44	
	This EPD was independently verified in accordance with ISO 14025, ISO 21930 and the reference PCR	
	Internal: ☐ External: ☒	
	Hammad Ur Rehman, Certified 3rd Party Verifier under Labeling Sustainability Program (www.labelingsustainability.com)	

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ORGANIZATION DESCRIPTION

Crown Polymers is a leading manufacturer with over 30 years of expertise in high-performance industrial floor coatings, decorative floors, and concrete repair systems. Crown Polymers is dedicated to offering top-quality products, exceptional customer service, and ongoing innovation.

STUDY GOAL

The intended application of the background life cycle assessment (LCA) study was to comply with the procedures for creating a Type III environmental product declaration (EPD) and publish the EPD for public review on the website, <https://www.labelingsustainability.com/>. This level of study is in accordance with the Product Category Rule (PCR) Part B: Product group definition for resinous floor coatings, Part B #25-007, ISO 21930:2017 Sustainability in buildings and civil engineering works - Core rules for environmental product declarations of construction products and services, ISO 14044:2006 Environmental management, Life cycle assessment - Requirements and guidelines, and ISO 14040:2006 Environmental management, Life cycle assessment - Principles and framework. The performance of this study and its subsequent publishing is in alignment with the business-to-business (B2B) communication requirements for the environmental assessment of building products. This study does not intend to support comparative assertions and is intended to be disclosed to the public.

The project report was commissioned to differentiate Crown Polymers members from their competition for the following reasons: generate an advantage for the organization, offer customers information to help them make informed product decisions, and identify and quantify the environmental impacts associated with resinous floor coating products to support future strategies for impact reduction based on measurable data. The intended audience for this EPD report is Crown Polymers members, their customers, their suppliers, project specifiers of resinous floor coating products, architects, and engineers. The EPD report is also available for policymakers, government officials interested in sustainability, academic professors, and LCA professionals.

Limitations

Environmental declarations from different programs (ISO 14025) may not be comparable. Comparison of the environmental performance of building envelope thermal insulation using EPD information shall be based on the product's use and impacts at the building level, and therefore, EPDs may not be used for comparability purposes when not considering the building energy use phase as instructed under this PCR. Caution must be used when comparing EPDs, as variations and deviations are possible, e.g., different LCA software and background LCI datasets may lead to differences in calculated and reported results.

PRODUCT DESCRIPTION

Crown Polymers offers a diverse range of epoxy floor coating products, including epoxy primers, basecoats and topcoats, moisture mitigation coatings, flexible membranes, thin-set epoxy terrazzo binders, and other related materials, designed for use as part of multi-layer flooring systems applied to prepared concrete substrates. These products are intended to serve a wide array of industrial and commercial applications. These coatings are engineered with advanced features to meet specific performance needs.

DECLARED PRODUCT

Declared unit

One square meter (1 m²) of covered and protected flooring surface.

DESIGN COMPOSITION

The following table provides an approximate breakdown of the declared products' composition.

Materials	Value	Unit
Epoxy resin/polymer	30 – 60	%
Pigment	0 – 3	%
Solvent/diluent	10 – 30	%
Curing agent	15 – 40	%
Fillers/Aggregates	0 – 60	%
Additives	1 – 10	%
Others	0 – 5	%

Table 1: **Material composition – all declared products**

The following table provides a list of all declared products considered in this EPD, along with key performance parameters.

unique ID/name	short description	product type	declared, dry film thickness (DFT)	coverage rate, ft ² /gal	mixed density, lb/gal	coating weight, kg /DU
8320 CrownShield	High-performance Hybrid (Bis. F and Bis. A) 2-component Epoxy.	Epoxy	10 Mils	160	9.07	0.276
8303 CrownShield	Two-component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings	Epoxy	16 Mils	100	9.00	0.439
8511 CrownShield	Two-component, 100% Solids, Semi-Rigid Epoxy Membrane, and Joint Sealant and Crack Filler	Epoxy	20 Mils	80	8.85	0.540
352 CrownShield	General Purpose Epoxy Thru-Product – Primer, Buildcoat, & Topcoat	Epoxy	10 Mils	160	8.97	0.273
320 CrownShield	General Purpose Epoxy Thru-Product – Primer, Body Coat, Binder, & Topcoat	Epoxy	10 Mils	160	8.86	0.270
814 CrownCrete-U	Three-component Self-Leveling Urethane-Cement Mortar	Urethane Cement	1/4"	6	15.52	12.19
818 CrownCrete-U	Three-component Self-Leveling Urethane-Cement Mortar	Urethane Cement	1/8"	13	14.03	5.27
810 CrownCrete U	Three-part Urethane Polymer Concrete High-build Coating	Urethane Cement	16 Mils	101	11.08	0.537
838 CrownCrete U	Three-part Urethane Polymer Concrete Trowel Grade Product	Urethane Cement	3/8"	4	17.19	20.34
8175 CrownPro	Fast Curing, High Performance, UV Stable, Polyaspartic – Clear or Pigmented	Polyaspartic	10.7 mils	150	9.45	0.307
8175 Slow CrownPro	Fast Curing, High Performance, UV Stable, Polyaspartic – Clear or Pigmented	Polyaspartic	10.7 mils	150	9.42	0.306
8195 CrownPro	Aliphatic Polyaspartic Coating – Fast-Cure Chemical & Abrasion Resistant Finish Coat	Polyaspartic	10 mils	160	8.95	0.273
8100 CrownCote	High Solids, Two-component, Abrasion, Chemical, And Stain-Resistant Aliphatic Polyurethane Finish Coat	Polyurethane	3.2 Mils	500	8.85	0.0863
8115 CrownPro	Two-component High-Solids Abrasion, Chemical And Stain Resistant Aliphatic Polyurethane Finish Coat	Polyurethane	10 Mils	160	9.41	0.287
8202 CrownPrime	High-performance 2-component Water-Borne Epoxy Primer	Epoxy	10 Mils	160	8.76	0.267
8312 CrownCove	8312 CrownCove is a Clear, 2-component, 100% Solids, And	Epoxy	16 Mils	18	9.36	2.536

	Thermosetting Thixotropic Epoxy					
7500 CrownPro	Chemical Resistant Novolac Epoxy Liner, Medium Viscosity Coating and Mortar Binder	Epoxy	16 Mils	100	11.06	0.539
8601 CrownPro	Conductive Primer, Two-component Water-based, High-performance Epoxy Floor Primer	Epoxy	10 Mils	160	9.37	0.286
8602 CrownPro	8602 CrownPro is a Static Dissipative or Conductive Pigmented Epoxy System	Epoxy	10 Mils	100	11.25	0.549

Table 2: Declared unit parameters

TECHNICAL DATA

Parameter	8320	8303	8511	352	320	814	818	810	838	8175	8175 Slow	8195	8100
Compressive strength (ASTM D695/C579)	12000 psi	10000 psi	2500 psi	-	-	8800 psi	8800 psi	7560 psi	5000 psi	-	-	-	-
Flexural strength (ASTM C580)	-	-	-	-	-	5000 psi	5000 psi	4250 psi	2500 psi	-	-	-	-
Tensile strength (ASTM D638/412/C307)	4500 psi	7500 psi	1760 psi	3400 psi	2500 psi	1450 psi	1450 psi	1280 psi	720 psi	3000 psi	3000 psi	4100 psi	4500 psi
Shrinkage (ASTM C531)	-	-	-	-	-	0.22%	0.3%	0.1%	0.2%	-	-	-	-
Adhesion to concrete (ASTM D7234)	>400 psi	>400 psi	>400 psi	>400 psi	>400 psi	>400 psi	>400 psi	>400 psi	>400 psi	-	-	-	-
Elongation (ASTM D638)	2%	1.5-2%	95%	60%	20%	-	-	-	-	50-60%	50-60%	45%	5%
Shore D hardness (ASTM D2240)	80-85	75-85	55-60	75	67-72	78-80	78-80	78-80	78-80	-	-	62D	-
Water absorption (ASTM D570)	-	0.1%	-	-	0.1%	-	-	-	-	-	-	-	-
Permeance (ADTM E96)	-	0.022 g/ft/hr	-	-	-	-	-	-	-	-	-	-	-
Impact resistance (ASTM E96)	-	-	-	-	-	>160 in/lbs	>160 in/lbs	>160 in/lbs	>160 in/lbs	-	-	-	160 in/lbs
Flame spread/NFPA (ASTM E648)	-	-	-	-	-	Class 1	Class 1	Class 1	Class 1	-	-	-	-
Abrasion resistance (ASTM D4060)	0.026 gr	-	-	-	-	70 mg loss	70 mg loss	80 mg loss	70 mg loss	-	-	40 mg loss	30 mg loss
Gloss index 60°/85°	-	-	-	-	-	-	-	-	-	90-95	90-95	92/98	80-90

(ASTM D523)													
Pencil hardness (ASTM D3363)	-	-	-	-	-	-	-	-	-	2H	2H	-	-
Tear strength (ASTM D624)	-	-	-	450 pli		-	-	-	-	-	-	455 pli	-
Konig Hardness (ASTM D4366)	-	-	-			-	-	-	-	-	-	-	150
VOC content (As per TDS)	0 g/L	0 g/L	0 g/L	0 g/L	0 g/L	0 g/L	0 g/L	0 g/L	0 g/L	<75 g/L	<75 g/L	<50 g/L	<50 g/L

Table 3.1: **Technical data**

Parameter	8115	8202	8312	7500	8601	8602
Compressive strength (ASTM D695/C579)	-	-	7300 psi	12000 psi	-	-
Flexural strength (ASTM C580)	-	-	2500 psi		-	-
Tensile strength (ASTM D638/412/C307)	2120 psi	-	5300 psi	4500 psi	-	-
Shore D hardness (ASTM D2240)	75	-	85-90	80-85	-	-
Adhesion to concrete (ASTM D7234)	-	>300 psi	>400 psi	>400 psi	-	-
Elongation (ASTM D638)	60%	-	1.5%	2%	-	-
Impact resistance (ASTM E96)	-	-	>160 in/lbs	-	-	-
Abrasion resistance (ASTM D4060)	20 mg loss	-	30 mg loss	0.026 gr	-	-
Tear strength (ASTM D624)	150 pli	-	-	-	-	-
Water absorption (ASTM D570)	-	-	-	0.15%	-	-
Static Range 1 million to 1 billion OHMS 1E6 - 1E9	-	-	-	-	-	Meets
Conductive range 25,000 - 1,000,000 OHMS 2.5E4 - 1.0E6	-	-	-	-	Meets	Meets
Body volt generation <15 volts	-	-	-	-	Meets	Meets
5,000 volt charge Dissipation to 0 volts <0.1 seconds	-	-	-	-	Meets	Meets
VOC content (As per TDS)	37 g/L	<50 g/L	0 g/L	0 g/L	0 g/L	0 g/L

Table 3.2: **Technical data**

Note: The technical data and parameters listed in this EPD report are sourced from the manufacturer's technical data sheets and product documentation and are referenced for informational purposes only. They have not been independently verified and should not be considered as product-specific claims or guarantees.

Reference service life, product

Not declared.

Reference service life, building, or construction works

75 years.

SYSTEM BOUNDARIES

The following figure depicts the cradle-to-gate system boundary considered in this study.

Product stage			Construction stage		Use stage							End-of life stage				Beyond the system boundaries
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Raw material supply	Transport	Manufacturing	Transport to site	Installation of product	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction and demolition	Waste transport	Waste processing	Disposal	Reuse recovery - recycling potential
X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

Figure 1: General life cycle phases for consideration in a construction works system. (X = declared module, MND = module not declared).

In addition, according to the relevant PCR, the following requirements are excluded from this study:

- Production, manufacture, and construction of A3 building/capital goods and infrastructure.
- Personnel-related activities (travel, furniture, office supplies).
- Energy use related to company management and sales activities.
- Packaging of incoming raw materials (e.g., plastic bags, pallets, etc.) is excluded as it accounts for less than 1% of the product's mass.
- Research and development activities.
- Long-term emissions.

The following figure illustrates the production of resinous coating products at Crown Polymers' manufacturing facility in Santa Fe Springs, CA.



Figure 2: **Product flow diagram.**

REPORTING PERIOD

This study represents the production data for 12 months from January 1, 2024, to December 31, 2024, for the Crown Polymers manufacturing facility located in Santa Fe Springs, California.

CUT-OFF CRITERIA

ISO 14044:2006 and the PCR require the LCA model to contain a minimum of 95% of the total inflows (mass and energy) to the upstream and core modules be included in this study. The cut-off criteria are applied to all other processes unless otherwise noted above as follows. A 1% cutoff is considered for all renewable and non-renewable primary energy consumption and the total mass of inputs within a unit process where the total of the neglected inputs does not exceed 5%. This cut-off criterion does not apply to hazardous substances.

No known flows are deliberately excluded from this EPD.

ALLOCATION

This EPD follows the allocation guidelines of ISO 14044 and ISO 21930. As resinous coatings are the sole product manufactured at the given facility, no co-products are generated. Thus, no allocation principles and procedures are applied in this study. Secondary material inputs adhere to the polluter pays principle. Accordingly, the environmental impacts attributed to these materials are limited to the treatment and transportation required to use them as a material input. As a default, secondary Ecoinvent datasets apply allocation on a physical mass basis. The system boundary of this study is determined in accordance with the modularity principle as outlined in ISO 21930. All environmental impacts are assigned to the life cycle stages in which they occur, without allocation to other stages.

DATA SOURCES AND DATA QUALITY ASSESSMENT

The manufacturers provided specific data on the product composition, representing the production of the declared product. This data was collected for the development of the EPD during the study year. Background data was sourced from the Ecoinvent database. The quality of the raw material data in stage A1 is presented in the table below. There are no data gaps in the study; should any data gaps be identified, they are handled on an individual case basis.

Materials	Source	Data Quality	Year
Binder & Resin	Ecoinvent 3.10.1	Database	2023
Chemicals	Ecoinvent 3.10.1	Database	2023
Additives	Ecoinvent 3.10.1	Database	2023
Vegetable oil	Ecoinvent 3.10.1	Database	2023
Aggregates	Ecoinvent 3.10.1	Database	2023
Mineral(s)	Ecoinvent 3.10.1	Database	2023

Table 4: LCI inputs assumed

Data quality/variability requirements, as specified in the PCR, and relative to ISO 14044:2006 requirements, are applied. Data quality is judged based on its precision (measured, calculated or estimated), completeness (e.g., unreported emissions), consistency (degree of uniformity of the methodology applied within a study serving as a data source) and representativeness (geographical, temporal, and technological).

ENVIRONMENTAL INDICATORS AND INVENTORY METRICS

Per the PCR, this EPD supports the life cycle impact assessment indicators and inventory metrics as listed in the tables below. As specified in the PCR, the most recent US EPA Tool for the Reduction and Assessment of Chemical and Other Environmental Impacts (TRACI), impact categories are utilized as they provide a North American context for the mandatory category indicators to be included in the EPD. Climate change impact categories are calculated using the IPCC AR6 methodology.

Impact Category	Unit	Methodology
Total global warming potential (GWP-total)	kg CO ₂ eq	IPCC AR6
Global warming potential from fossil fuels (GWP-fossil)	kg CO ₂ eq	IPCC AR6
Global warming potential from biogenic (GWP-biogenic)	kg CO ₂ eq	IPCC AR6
Global warming potential from land use and land use change (GWP-luluc)	kg CO ₂ eq	IPCC AR6
Acidification (AP)	kg SO ₂ eq	TRACI 2.2
Eutrophication: freshwater (EP-freshwater)	kg P eq	TRACI 2.2
Eutrophication: marine (EP-marine)	kg N eq	TRACI 2.2
Ozone depletion potential (ODP)	kg CFC-11 eq	TRACI 2.2
Smog formation potential (SFP)	kg O ₃ eq	TRACI 2.2
Abiotic depletion potential for fossil resources (ADPfossil)	MJ	CML

Table 5: Mid point impact categories

Indicator	Acronym	Unit
Resource use indicators		
Renewable primary resources used as an energy carrier (fuel)	RPRE	MJ
Renewable primary resources with energy content used as a material	RPRM	MJ
Total use of renewable primary resources with energy content	PERT	MJ
Non-renewable primary resources used as an energy carrier (fuel)	NRPRE	MJ
Non-renewable primary resources with energy content used as a material	NRPRM	MJ
Total use of non-renewable primary resources with energy content	PENRT	MJ
Secondary materials	SM	kg
Renewable secondary fuels	RSF	MJ
Non-renewable secondary fuels	NRSF	MJ
Recovered energy	RE	MJ
Consumption of freshwater	FW	m3
Output flow and waste indicators		
Hazardous waste disposed	HWD	kg
Non-hazardous waste disposed	NHWD	kg
Radioactive waste disposed	RWD	kg
Components for re-use	CRU	kg
Materials for recycling	MR	kg
Materials for energy recovery	MER	kg

Exported energy electrical	EEE	MJ
Exported energy thermal	EET	MJ
Carbon emissions and removals indicators		
Biogenic carbon removals from product	BCRP	kg CO ₂
Biogenic carbon emissions from product	BCEP	kg CO ₂
Biogenic carbon removals from packaging	BCRK	kg CO ₂
Biogenic carbon emissions from packaging	BCEK	kg CO ₂
Carbon emissions from calcination	CCE	kg CO ₂
Carbon removals from carbonation	CCR	kg CO ₂
Carbon emissions from combustion of waste from renewable sources used in production process	CBCEW	kg CO ₂
Carbon emissions from combustion of waste from non-renewable sources used in production processes	CWNR	kg CO ₂

Table 6: LCI indicator/metric

TOTAL IMPACT SUMMARY

The following table reports the total LCA results for each declared product produced at a given facility, reported per declared unit.

These impact categories are globally deemed mature enough to be included in Type III environmental declarations. Other categories are being developed and defined, and LCA should continue making advances in their development. However, the EPD users shall not use additional measures for comparative purposes.

a) Midpoint Impact Categories

Indicator/LCI Metric	GWP-total (kg CO ₂ eq)			
Product	Life cycle stage			
	A1	A2	A3	Total (A1-A3)
8320 CrownShield	1.37E+00	2.98E-02	1.09E-01	1.51E+00
8303 CrownShield	2.19E+00	5.50E-02	1.09E-01	2.36E+00
8511 CrownShield	2.78E+00	7.62E-02	1.09E-01	2.96E+00
352 CrownShield	1.42E+00	5.01E-02	1.09E-01	1.58E+00
320 CrownShield	1.30E+00	2.59E-02	1.09E-01	1.44E+00
814 CrownCrete-U	3.12E+01	3.11E+00	1.09E-01	3.44E+01
818 CrownCrete-U	1.61E+01	1.23E+00	1.09E-01	1.74E+01
810 CrownCrete U	2.15E+00	1.05E-01	1.09E-01	2.37E+00
838 CrownCrete U	4.18E+01	5.69E+00	1.09E-01	4.76E+01
8175 CrownPro	1.69E+00	1.00E-01	1.09E-01	1.90E+00
8175 Slow CrownPro	1.69E+00	1.00E-01	1.09E-01	1.90E+00
8195 CrownPro	1.74E+00	1.13E-01	1.09E-01	1.96E+00
8100 CrownCote	5.50E-01	3.44E-02	1.09E-01	6.93E-01
8115 Crown Pro	1.72E+00	9.16E-02	1.09E-01	1.92E+00
8202 CrownPrime	7.36E-01	4.68E-02	1.09E-01	8.92E-01
8312 CrownCove	1.35E+01	3.81E-01	1.09E-01	1.40E+01
7500 CrownPro	2.24E+00	1.17E-01	1.09E-01	2.47E+00
8601 CrownPro	7.43E-01	3.66E-02	1.09E-01	8.89E-01
8602 CrownPro	1.98E+00	1.05E-01	1.09E-01	2.19E+00
GWP-fossil (kg CO ₂ eq)				
8320 CrownShield	1.38E+00	2.98E-02	1.09E-01	1.52E+00
8303 CrownShield	2.20E+00	5.50E-02	1.09E-01	2.36E+00
8511 CrownShield	2.80E+00	7.61E-02	1.09E-01	2.98E+00
352 CrownShield	1.43E+00	5.01E-02	1.09E-01	1.59E+00
320 CrownShield	1.31E+00	2.59E-02	1.09E-01	1.45E+00
814 CrownCrete-U	2.92E+01	3.11E+00	1.09E-01	3.24E+01
818 CrownCrete-U	1.51E+01	1.23E+00	1.09E-01	1.64E+01
810 CrownCrete U	2.02E+00	1.05E-01	1.09E-01	2.23E+00
838 CrownCrete U	3.93E+01	5.68E+00	1.09E-01	4.51E+01
8175 CrownPro	1.69E+00	1.00E-01	1.09E-01	1.90E+00
8175 Slow CrownPro	1.68E+00	1.00E-01	1.09E-01	1.89E+00
8195 CrownPro	1.74E+00	1.13E-01	1.09E-01	1.96E+00
8100 CrownCote	5.49E-01	3.43E-02	1.09E-01	6.92E-01
8115 Crown Pro	1.63E+00	9.15E-02	1.09E-01	1.83E+00
8202 CrownPrime	7.32E-01	4.67E-02	1.09E-01	8.88E-01
8312 CrownCove	1.35E+01	3.80E-01	1.09E-01	1.40E+01
7500 CrownPro	2.23E+00	1.17E-01	1.09E-01	2.46E+00
8601 CrownPro	7.40E-01	3.66E-02	1.09E-01	8.85E-01
8602 CrownPro	1.97E+00	1.05E-01	1.09E-01	2.19E+00
GWP-biogenic (kg CO ₂ eq)				
8320 CrownShield	-2.46E-02	1.32E-05	4.65E-04	-2.41E-02
8303 CrownShield	-3.97E-02	2.57E-05	4.65E-04	-3.92E-02
8511 CrownShield	-1.03E-01	4.06E-05	4.65E-04	-1.02E-01

352 CrownShield	-2.16E-02	2.49E-05	4.65E-04	-2.11E-02
320 CrownShield	-3.94E-02	1.00E-05	4.65E-04	-3.90E-02
814 CrownCrete-U	-1.62E+00	1.95E-03	4.65E-04	-1.62E+00
818 CrownCrete-U	-8.47E-01	7.72E-04	4.65E-04	-8.45E-01
810 CrownCrete U	-1.15E-01	6.56E-05	4.65E-04	-1.15E-01
838 CrownCrete U	-2.02E+00	3.56E-03	4.65E-04	-2.01E+00
8175 CrownPro	2.61E-04	6.29E-05	4.65E-04	7.88E-04
8175 Slow CrownPro	2.58E-04	6.29E-05	4.65E-04	7.85E-04
8195 CrownPro	1.88E-03	7.05E-05	4.65E-04	2.42E-03
8100 CrownCote	3.65E-04	2.15E-05	4.65E-04	8.51E-04
8115 Crown Pro	-7.60E-02	5.73E-05	4.65E-04	-7.55E-02
8202 CrownPrime	2.66E-03	2.93E-05	4.65E-04	3.15E-03
8312 CrownCove	3.05E-02	2.38E-04	4.65E-04	3.12E-02
7500 CrownPro	-2.11E-02	7.33E-05	4.65E-04	-2.05E-02
8601 CrownPro	-6.20E-03	2.29E-05	4.65E-04	-5.71E-03
8602 CrownPro	4.88E-03	6.55E-05	4.65E-04	5.41E-03

GWP-luluc (kg CO₂ eq)

8320 CrownShield	2.13E-02	1.32E-05	8.62E-06	2.13E-02
8303 CrownShield	3.41E-02	2.38E-05	8.62E-06	3.41E-02
8511 CrownShield	8.14E-02	3.12E-05	8.62E-06	8.15E-02
352 CrownShield	1.92E-02	2.11E-05	8.62E-06	1.92E-02
320 CrownShield	3.21E-02	1.20E-05	8.62E-06	3.21E-02
814 CrownCrete-U	3.58E+00	1.17E-03	8.62E-06	3.58E+00
818 CrownCrete-U	1.86E+00	4.63E-04	8.62E-06	1.86E+00
810 CrownCrete U	2.53E-01	3.94E-05	8.62E-06	2.53E-01
838 CrownCrete U	4.47E+00	2.14E-03	8.62E-06	4.48E+00
8175 CrownPro	3.33E-03	3.77E-05	8.62E-06	3.37E-03
8175 Slow CrownPro	3.32E-03	3.77E-05	8.62E-06	3.37E-03
8195 CrownPro	2.39E-03	4.23E-05	8.62E-06	2.44E-03
8100 CrownCote	4.69E-04	1.29E-05	8.62E-06	4.90E-04
8115 Crown Pro	1.66E-01	3.44E-05	8.62E-06	1.66E-01
8202 CrownPrime	6.42E-04	1.76E-05	8.62E-06	6.68E-04
8312 CrownCove	1.10E-02	1.43E-04	8.62E-06	1.11E-02
7500 CrownPro	3.05E-02	4.40E-05	8.62E-06	3.06E-02
8601 CrownPro	9.28E-03	1.38E-05	8.62E-06	9.30E-03
8602 CrownPro	1.57E-03	3.93E-05	8.62E-06	1.61E-03

AP (kg SO₂ eq)

8320 CrownShield	5.98E-03	4.10E-04	1.73E-04	6.56E-03
8303 CrownShield	9.43E-03	6.76E-04	1.73E-04	1.03E-02
8511 CrownShield	1.23E-02	6.59E-04	1.73E-04	1.31E-02
352 CrownShield	6.17E-03	5.29E-04	1.73E-04	6.87E-03
320 CrownShield	5.69E-03	4.39E-04	1.73E-04	6.30E-03
814 CrownCrete-U	1.48E-01	1.00E-02	1.73E-04	1.58E-01
818 CrownCrete-U	7.74E-02	3.98E-03	1.73E-04	8.15E-02
810 CrownCrete U	1.06E-02	3.38E-04	1.73E-04	1.11E-02
838 CrownCrete U	1.98E-01	1.83E-02	1.73E-04	2.16E-01
8175 CrownPro	7.37E-03	3.24E-04	1.73E-04	7.87E-03
8175 Slow CrownPro	7.35E-03	3.24E-04	1.73E-04	7.85E-03
8195 CrownPro	7.48E-03	3.63E-04	1.73E-04	8.02E-03
8100 CrownCote	2.29E-03	1.11E-04	1.73E-04	2.57E-03

8115 Crown Pro	7.29E-03	2.95E-04	1.73E-04	7.76E-03
8202 CrownPrime	3.07E-03	1.51E-04	1.73E-04	3.40E-03
8312 CrownCove	5.90E-02	1.23E-03	1.73E-04	6.04E-02
7500 CrownPro	1.18E-02	3.78E-04	1.73E-04	1.24E-02
8601 CrownPro	3.05E-03	1.18E-04	1.73E-04	3.34E-03
8602 CrownPro	8.75E-03	3.38E-04	1.73E-04	9.27E-03
EP-freshwater (kg P eq)				
8320 CrownShield	3.44E-04	1.58E-06	5.21E-05	3.97E-04
8303 CrownShield	5.50E-04	3.02E-06	5.21E-05	6.05E-04
8511 CrownShield	7.31E-04	4.56E-06	5.21E-05	7.88E-04
352 CrownShield	3.62E-04	2.87E-06	5.21E-05	4.17E-04
320 CrownShield	3.30E-04	1.25E-06	5.21E-05	3.83E-04
814 CrownCrete-U	6.44E-02	2.10E-04	5.21E-05	6.47E-02
818 CrownCrete-U	3.35E-02	8.32E-05	5.21E-05	3.37E-02
810 CrownCrete U	4.56E-03	7.07E-06	5.21E-05	4.62E-03
838 CrownCrete U	8.11E-02	3.83E-04	5.21E-05	8.15E-02
8175 CrownPro	4.04E-04	6.77E-06	5.21E-05	4.63E-04
8175 Slow CrownPro	4.03E-04	6.77E-06	5.21E-05	4.61E-04
8195 CrownPro	4.14E-04	7.59E-06	5.21E-05	4.74E-04
8100 CrownCote	1.37E-04	2.32E-06	5.21E-05	1.91E-04
8115 Crown Pro	3.07E-03	6.17E-06	5.21E-05	3.13E-03
8202 CrownPrime	1.94E-04	3.15E-06	5.21E-05	2.49E-04
8312 CrownCove	3.43E-03	2.57E-05	5.21E-05	3.51E-03
7500 CrownPro	5.40E-04	7.90E-06	5.21E-05	6.00E-04
8601 CrownPro	1.71E-04	2.47E-06	5.21E-05	2.25E-04
8602 CrownPro	4.89E-04	7.06E-06	5.21E-05	5.48E-04
EP-marine (kg N eq)				
8320 CrownShield	1.19E-03	1.07E-04	5.63E-05	1.36E-03
8303 CrownShield	1.90E-03	1.79E-04	5.63E-05	2.14E-03
8511 CrownShield	2.72E-03	1.82E-04	5.63E-05	2.96E-03
352 CrownShield	1.22E-03	1.42E-04	5.63E-05	1.42E-03
320 CrownShield	1.22E-03	1.13E-04	5.63E-05	1.39E-03
814 CrownCrete-U	4.94E-02	3.41E-03	5.63E-05	5.29E-02
818 CrownCrete-U	2.57E-02	1.35E-03	5.63E-05	2.71E-02
810 CrownCrete U	3.48E-03	1.15E-04	5.63E-05	3.65E-03
838 CrownCrete U	6.42E-02	6.23E-03	5.63E-05	7.04E-02
8175 CrownPro	1.54E-03	1.10E-04	5.63E-05	1.71E-03
8175 Slow CrownPro	1.54E-03	1.10E-04	5.63E-05	1.71E-03
8195 CrownPro	1.58E-03	1.23E-04	5.63E-05	1.76E-03
8100 CrownCote	5.70E-04	3.77E-05	5.63E-05	6.64E-04
8115 Crown Pro	3.02E-03	1.00E-04	5.63E-05	3.18E-03
8202 CrownPrime	5.66E-04	5.12E-05	5.63E-05	6.74E-04
8312 CrownCove	1.07E-02	4.17E-04	5.63E-05	1.11E-02
7500 CrownPro	1.89E-03	1.28E-04	5.63E-05	2.08E-03
8601 CrownPro	5.90E-04	4.01E-05	5.63E-05	6.86E-04
8602 CrownPro	1.54E-03	1.15E-04	5.63E-05	1.71E-03
ODP (kg CFC-11 eq)				
8320 CrownShield	4.40E-08	5.02E-10	1.22E-09	4.57E-08
8303 CrownShield	7.17E-08	9.45E-10	1.22E-09	7.39E-08
8511 CrownShield	5.84E-06	1.35E-09	1.22E-09	5.84E-06

352 CrownShield	4.53E-08	8.74E-10	1.22E-09	4.74E-08
320 CrownShield	4.34E-08	4.25E-10	1.22E-09	4.50E-08
814 CrownCrete-U	6.45E-07	5.81E-08	1.22E-09	7.04E-07
818 CrownCrete-U	4.21E-07	2.30E-08	1.22E-09	4.45E-07
810 CrownCrete U	7.38E-08	1.96E-09	1.22E-09	7.69E-08
838 CrownCrete U	1.36E-06	1.06E-07	1.22E-09	1.47E-06
8175 CrownPro	5.41E-08	1.87E-09	1.22E-09	5.72E-08
8175 Slow CrownPro	5.39E-08	1.87E-09	1.22E-09	5.70E-08
8195 CrownPro	5.31E-08	2.10E-09	1.22E-09	5.64E-08
8100 CrownCote	1.58E-08	6.40E-10	1.22E-09	1.76E-08
8115 Crown Pro	4.77E-08	1.71E-09	1.22E-09	5.07E-08
8202 CrownPrime	1.73E-08	8.72E-10	1.22E-09	1.94E-08
8312 CrownCove	2.39E-05	7.10E-09	1.22E-09	2.39E-05
7500 CrownPro	5.02E-08	2.19E-09	1.22E-09	5.36E-08
8601 CrownPro	2.05E-08	6.83E-10	1.22E-09	2.24E-08
8602 CrownPro	6.51E-08	1.96E-09	1.22E-09	6.82E-08

SFP (kg O₃ eq)

8320 CrownShield	7.55E-02	7.05E-03	3.27E-03	8.58E-02
8303 CrownShield	1.19E-01	1.18E-02	3.27E-03	1.34E-01
8511 CrownShield	1.55E-01	1.21E-02	3.27E-03	1.70E-01
352 CrownShield	7.84E-02	9.41E-03	3.27E-03	9.11E-02
320 CrownShield	7.14E-02	7.37E-03	3.27E-03	8.20E-02
814 CrownCrete-U	1.47E+00	2.39E-01	3.27E-03	1.71E+00
818 CrownCrete-U	7.60E-01	9.47E-02	3.27E-03	8.58E-01
810 CrownCrete U	1.02E-01	8.05E-03	3.27E-03	1.14E-01
838 CrownCrete U	1.97E+00	4.36E-01	3.27E-03	2.41E+00
8175 CrownPro	9.71E-02	7.71E-03	3.27E-03	1.08E-01
8175 Slow CrownPro	9.68E-02	7.71E-03	3.27E-03	1.08E-01
8195 CrownPro	9.91E-02	8.64E-03	3.27E-03	1.11E-01
8100 CrownCote	3.39E-02	2.64E-03	3.27E-03	3.98E-02
8115 Crown Pro	1.05E-01	7.02E-03	3.27E-03	1.15E-01
8202 CrownPrime	4.32E-02	3.59E-03	3.27E-03	5.00E-02
8312 CrownCove	7.47E-01	2.92E-02	3.27E-03	7.79E-01
7500 CrownPro	1.19E-01	8.99E-03	3.27E-03	1.19E-01
8601 CrownPro	4.10E-02	2.81E-03	3.27E-03	4.70E-02
8602 CrownPro	1.10E-01	8.04E-03	3.27E-03	1.21E-01

ADPfossil (MJ)

8320 CrownShield	2.64E+01	4.05E-01	1.71E+00	2.85E+01
8303 CrownShield	4.22E+01	7.54E-01	1.71E+00	4.47E+01
8511 CrownShield	5.15E+01	1.07E+00	1.71E+00	5.43E+01
352 CrownShield	2.68E+01	6.93E-01	1.71E+00	2.92E+01
320 CrownShield	2.48E+01	3.44E-01	1.71E+00	2.69E+01
814 CrownCrete-U	4.44E+02	4.51E+01	1.71E+00	4.91E+02
818 CrownCrete-U	2.33E+02	1.79E+01	1.71E+00	2.52E+02
810 CrownCrete U	3.17E+01	1.52E+00	1.71E+00	3.50E+01
838 CrownCrete U	5.84E+02	8.23E+01	1.71E+00	6.68E+02
8175 CrownPro	3.09E+01	1.45E+00	1.71E+00	3.41E+01
8175 Slow CrownPro	3.09E+01	1.45E+00	1.71E+00	3.40E+01
8195 CrownPro	2.98E+01	1.63E+00	1.71E+00	3.32E+01
8100 CrownCote	9.27E+00	4.97E-01	1.71E+00	1.15E+01

8115 Crown Pro	2.62E+01	1.32E+00	1.71E+00	2.93E+01
8202 CrownPrime	1.32E+01	6.77E-01	1.71E+00	1.56E+01
8312 CrownCove	2.53E+02	5.51E+00	1.71E+00	2.60E+02
7500 CrownPro	4.29E+01	1.70E+00	1.71E+00	4.63E+01
8601 CrownPro	1.51E+01	5.30E-01	1.71E+00	1.73E+01
8602 CrownPro	3.82E+01	1.52E+00	1.71E+00	4.15E+01

b) Resource Use Indicators

Indicator/LCI Metric	RPRE (MJ)			
Product	Life cycle stage			
	A1	A2	A3	Total (A1-A3)
8320 CrownShield	1.39E+00	5.32E-03	3.20E-01	1.72E+00
8303 CrownShield	2.22E+00	1.03E-02	3.20E-01	2.55E+00
8511 CrownShield	3.50E+00	1.57E-02	3.20E-01	3.84E+00
352 CrownShield	1.42E+00	9.81E-03	3.20E-01	1.75E+00
320 CrownShield	1.51E+00	4.16E-03	3.20E-01	1.83E+00
814 CrownCrete-U	4.16E+01	7.34E-01	3.20E-01	4.27E+01
818 CrownCrete-U	2.17E+01	2.91E-01	3.20E-01	2.23E+01
810 CrownCrete U	2.95E+00	2.47E-02	3.20E-01	3.29E+00
838 CrownCrete U	5.35E+01	1.34E+00	3.20E-01	5.51E+01
8175 CrownPro	1.32E+00	2.37E-02	3.20E-01	1.66E+00
8175 Slow CrownPro	1.32E+00	2.37E-02	3.20E-01	1.66E+00
8195 CrownPro	1.37E+00	2.66E-02	3.20E-01	1.71E+00
8100 CrownCote	4.29E-01	8.10E-03	3.20E-01	7.57E-01
8115 Crown Pro	2.34E+00	2.16E-02	3.20E-01	2.69E+00
8202 CrownPrime	6.43E-01	1.10E-02	3.20E-01	9.74E-01
8312 CrownCove	1.14E+01	8.98E-02	3.20E-01	1.18E+01
7500 CrownPro	1.92E+00	2.76E-02	3.20E-01	2.27E+00
8601 CrownPro	6.85E-01	8.63E-03	3.20E-01	1.01E+00
8602 CrownPro	1.59E+00	2.47E-02	3.20E-01	1.93E+00
RPRM (MJ)				
8320 CrownShield	3.93E-01	0.00E+00	0.00E+00	3.93E-01
8303 CrownShield	6.28E-01	0.00E+00	0.00E+00	6.28E-01
8511 CrownShield	1.54E+00	0.00E+00	0.00E+00	1.54E+00
352 CrownShield	3.50E-01	0.00E+00	0.00E+00	3.50E-01
320 CrownShield	6.03E-01	0.00E+00	0.00E+00	6.03E-01
814 CrownCrete-U	5.11E+01	0.00E+00	0.00E+00	5.11E+01
818 CrownCrete-U	2.66E+01	0.00E+00	0.00E+00	2.66E+01
810 CrownCrete U	3.61E+00	0.00E+00	0.00E+00	3.61E+00
838 CrownCrete U	6.39E+01	0.00E+00	0.00E+00	6.39E+01
8175 CrownPro	3.89E-02	0.00E+00	0.00E+00	3.89E-02
8175 Slow CrownPro	3.89E-02	0.00E+00	0.00E+00	3.89E-02
8195 CrownPro	1.94E-02	0.00E+00	0.00E+00	1.94E-02
8100 CrownCote	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8115 Crown Pro	2.37E+00	0.00E+00	0.00E+00	2.37E+00
8202 CrownPrime	0.00E+00	0.00E+00	0.00E+00	0.00E+00

8312 CrownCove	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7500 CrownPro	2.27E-01	0.00E+00	0.00E+00	2.27E-01
8601 CrownPro	6.82E-02	0.00E+00	0.00E+00	6.82E-02
8602 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RPRT (MJ)				
8320 CrownShield	1.78E+00	5.32E-03	3.20E-01	2.11E+00
8303 CrownShield	2.85E+00	1.03E-02	3.20E-01	3.18E+00
8511 CrownShield	5.04E+00	1.57E-02	3.20E-01	5.37E+00
352 CrownShield	1.77E+00	9.81E-03	3.20E-01	2.10E+00
320 CrownShield	2.11E+00	4.16E-03	3.20E-01	2.44E+00
814 CrownCrete-U	9.27E+01	7.34E-01	3.20E-01	9.37E+01
818 CrownCrete-U	4.83E+01	2.91E-01	3.20E-01	4.89E+01
810 CrownCrete U	6.56E+00	2.47E-02	3.20E-01	6.90E+00
838 CrownCrete U	1.17E+02	1.34E+00	3.20E-01	1.19E+02
8175 CrownPro	1.36E+00	2.37E-02	3.20E-01	1.70E+00
8175 Slow CrownPro	1.35E+00	2.37E-02	3.20E-01	1.70E+00
8195 CrownPro	1.39E+00	2.66E-02	3.20E-01	1.73E+00
8100 CrownCote	4.29E-01	8.10E-03	3.20E-01	7.57E-01
8115 Crown Pro	4.71E+00	2.16E-02	3.20E-01	5.05E+00
8202 CrownPrime	6.43E-01	1.10E-02	3.20E-01	9.74E-01
8312 CrownCove	1.14E+01	8.98E-02	3.20E-01	1.18E+01
7500 CrownPro	2.15E+00	2.76E-02	3.20E-01	2.50E+00
8601 CrownPro	7.54E-01	8.63E-03	3.20E-01	1.08E+00
8602 CrownPro	1.59E+00	2.47E-02	3.20E-01	1.93E+00
NRPRE (MJ)				
8320 CrownShield	2.04E+01	4.05E-01	1.71E+00	2.25E+01
8303 CrownShield	3.31E+01	7.54E-01	1.71E+00	3.55E+01
8511 CrownShield	4.02E+01	1.07E+00	1.71E+00	4.30E+01
352 CrownShield	2.12E+01	6.93E-01	1.71E+00	2.36E+01
320 CrownShield	1.96E+01	3.44E-01	1.71E+00	2.17E+01
814 CrownCrete-U	3.64E+02	4.51E+01	1.71E+00	4.11E+02
818 CrownCrete-U	1.90E+02	1.79E+01	1.71E+00	2.10E+02
810 CrownCrete U	2.59E+01	1.52E+00	1.71E+00	2.92E+01
838 CrownCrete U	4.80E+02	8.23E+01	1.71E+00	5.64E+02
8175 CrownPro	2.61E+01	1.45E+00	1.71E+00	2.93E+01
8175 Slow CrownPro	2.60E+01	1.45E+00	1.71E+00	2.92E+01
8195 CrownPro	2.64E+01	1.63E+00	1.71E+00	2.97E+01
8100 CrownCote	8.37E+00	4.97E-01	1.71E+00	1.06E+01
8115 Crown Pro	2.56E+01	1.32E+00	1.71E+00	2.86E+01
8202 CrownPrime	9.85E+00	6.77E-01	1.71E+00	1.22E+01
8312 CrownCove	2.02E+02	5.51E+00	1.71E+00	2.09E+02
7500 CrownPro	3.00E+01	1.70E+00	1.71E+00	3.34E+01
8601 CrownPro	1.12E+01	5.30E-01	1.71E+00	1.35E+01
8602 CrownPro	2.77E+01	1.52E+00	1.71E+00	3.09E+01
NRPRM (MJ)				
8320 CrownShield	6.03E+00	0.00E+00	0.00E+00	6.03E+00
8303 CrownShield	9.17E+00	0.00E+00	0.00E+00	9.17E+00
8511 CrownShield	1.15E+01	0.00E+00	0.00E+00	1.15E+01
352 CrownShield	5.61E+00	0.00E+00	0.00E+00	5.61E+00
320 CrownShield	5.22E+00	0.00E+00	0.00E+00	5.22E+00

814 CrownCrete-U	8.37E+01	0.00E+00	0.00E+00	8.37E+01
818 CrownCrete-U	4.41E+01	0.00E+00	0.00E+00	4.41E+01
810 CrownCrete U	6.07E+00	0.00E+00	0.00E+00	6.07E+00
838 CrownCrete U	1.09E+02	0.00E+00	0.00E+00	1.09E+02
8175 CrownPro	4.83E+00	0.00E+00	0.00E+00	4.83E+00
8175 Slow CrownPro	4.85E+00	0.00E+00	0.00E+00	4.85E+00
8195 CrownPro	3.47E+00	0.00E+00	0.00E+00	3.47E+00
8100 CrownCote	9.04E-01	0.00E+00	0.00E+00	9.04E-01
8115 Crown Pro	8.51E-01	0.00E+00	0.00E+00	8.51E-01
8202 CrownPrime	3.35E+00	0.00E+00	0.00E+00	3.35E+00
8312 CrownCove	5.13E+01	0.00E+00	0.00E+00	5.13E+01
7500 CrownPro	1.29E+01	0.00E+00	0.00E+00	1.29E+01
8601 CrownPro	3.83E+00	0.00E+00	0.00E+00	3.83E+00
8602 CrownPro	1.06E+01	0.00E+00	0.00E+00	1.06E+01
NRPRT (MJ)				
8320 CrownShield	2.64E+01	4.05E-01	1.71E+00	2.85E+01
8303 CrownShield	4.22E+01	7.54E-01	1.71E+00	4.47E+01
8511 CrownShield	5.16E+01	1.07E+00	1.71E+00	5.44E+01
352 CrownShield	2.68E+01	6.93E-01	1.71E+00	2.92E+01
320 CrownShield	2.48E+01	3.44E-01	1.71E+00	2.69E+01
814 CrownCrete-U	4.48E+02	4.51E+01	1.71E+00	4.95E+02
818 CrownCrete-U	2.35E+02	1.79E+01	1.71E+00	2.54E+02
810 CrownCrete U	3.20E+01	1.52E+00	1.71E+00	3.52E+01
838 CrownCrete U	5.89E+02	8.23E+01	1.71E+00	6.73E+02
8175 CrownPro	3.09E+01	1.45E+00	1.71E+00	3.41E+01
8175 Slow CrownPro	3.09E+01	1.45E+00	1.71E+00	3.40E+01
8195 CrownPro	2.98E+01	1.63E+00	1.71E+00	3.32E+01
8100 CrownCote	9.27E+00	4.97E-01	1.71E+00	1.15E+01
8115 Crown Pro	2.64E+01	1.32E+00	1.71E+00	2.94E+01
8202 CrownPrime	1.32E+01	6.77E-01	1.71E+00	1.56E+01
8312 CrownCove	2.53E+02	5.51E+00	1.71E+00	2.60E+02
7500 CrownPro	4.30E+01	1.70E+00	1.71E+00	4.64E+01
8601 CrownPro	1.51E+01	5.30E-01	1.71E+00	1.73E+01
8602 CrownPro	3.82E+01	1.52E+00	1.71E+00	4.15E+01
SM (kg)				
8320 CrownShield	4.63E-04	0.00E+00	0.00E+00	4.63E-04
8303 CrownShield	7.64E-04	0.00E+00	0.00E+00	7.64E-04
8511 CrownShield	1.39E-03	0.00E+00	0.00E+00	1.39E-03
352 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
320 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
814 CrownCrete-U	3.37E-02	0.00E+00	0.00E+00	3.37E-02
818 CrownCrete-U	1.75E-02	0.00E+00	0.00E+00	1.75E-02
810 CrownCrete U	2.34E-03	0.00E+00	0.00E+00	2.34E-03
838 CrownCrete U	4.26E-02	0.00E+00	0.00E+00	4.26E-02
8175 CrownPro	9.91E-04	0.00E+00	0.00E+00	9.91E-04
8175 Slow CrownPro	9.91E-04	0.00E+00	0.00E+00	9.91E-04
8195 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8100 CrownCote	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8115 Crown Pro	7.58E-04	0.00E+00	0.00E+00	7.58E-04
8202 CrownPrime	0.00E+00	0.00E+00	0.00E+00	0.00E+00

8312 CrownCove	6.29E-06	0.00E+00	0.00E+00	6.29E-06
7500 CrownPro	1.29E-02	0.00E+00	0.00E+00	1.29E-02
8601 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8602 CrownPro	1.75E-05	0.00E+00	0.00E+00	1.75E-05
RSF (MJ)				
8320 CrownShield	1.65E-04	1.56E-06	5.83E-07	1.67E-04
8303 CrownShield	2.52E-04	3.08E-06	5.83E-07	2.56E-04
8511 CrownShield	2.50E-04	4.97E-06	5.83E-07	2.56E-04
352 CrownShield	1.71E-04	3.02E-06	5.83E-07	1.75E-04
320 CrownShield	1.60E-04	1.14E-06	5.83E-07	1.62E-04
814 CrownCrete-U	1.49E-03	2.46E-04	5.83E-07	1.74E-03
818 CrownCrete-U	7.26E-04	9.75E-05	5.83E-07	8.24E-04
810 CrownCrete U	9.01E-05	8.29E-06	5.83E-07	9.90E-05
838 CrownCrete U	2.17E-03	4.49E-04	5.83E-07	2.62E-03
8175 CrownPro	1.02E-04	7.94E-06	5.83E-07	1.10E-04
8175 Slow CrownPro	1.01E-04	7.94E-06	5.83E-07	1.10E-04
8195 CrownPro	1.06E-04	8.90E-06	5.83E-07	1.15E-04
8100 CrownCote	1.94E-05	2.72E-06	5.83E-07	2.27E-05
8115 Crown Pro	6.10E-05	7.23E-06	5.83E-07	6.88E-05
8202 CrownPrime	8.53E-05	3.70E-06	5.83E-07	8.96E-05
8312 CrownCove	1.64E-03	3.01E-05	5.83E-07	1.67E-03
7500 CrownPro	2.65E-04	9.26E-06	5.83E-07	2.75E-04
8601 CrownPro	7.59E-05	2.89E-06	5.83E-07	7.94E-05
8602 CrownPro	2.64E-04	8.28E-06	5.83E-07	2.73E-04
NRSF (MJ)				
8320 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8303 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8511 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
352 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
320 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
814 CrownCrete-U	0.00E+00	0.00E+00	0.00E+00	0.00E+00
818 CrownCrete-U	0.00E+00	0.00E+00	0.00E+00	0.00E+00
810 CrownCrete U	0.00E+00	0.00E+00	0.00E+00	0.00E+00
838 CrownCrete U	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8175 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8175 Slow CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8195 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8100 CrownCote	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8115 Crown Pro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8202 CrownPrime	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8312 CrownCove	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7500 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8601 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8602 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE (MJ)				
8320 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8303 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8511 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
352 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
320 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00

814 CrownCrete-U	0.00E+00	0.00E+00	0.00E+00	0.00E+00
818 CrownCrete-U	0.00E+00	0.00E+00	0.00E+00	0.00E+00
810 CrownCrete U	0.00E+00	0.00E+00	0.00E+00	0.00E+00
838 CrownCrete U	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8175 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8175 Slow CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8195 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8100 CrownCote	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8115 Crown Pro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8202 CrownPrime	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8312 CrownCove	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7500 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8601 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8602 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW (m3)				
8320 CrownShield	1.05E-02	4.81E-05	6.01E-04	1.12E-02
8303 CrownShield	1.67E-02	9.28E-05	6.01E-04	1.74E-02
8511 CrownShield	2.16E-02	1.42E-04	6.01E-04	2.24E-02
352 CrownShield	1.06E-02	8.86E-05	6.01E-04	1.13E-02
320 CrownShield	1.04E-02	3.74E-05	6.01E-04	1.10E-02
814 CrownCrete-U	4.43E-01	6.66E-03	6.01E-04	4.50E-01
818 CrownCrete-U	2.30E-01	2.64E-03	6.01E-04	2.34E-01
810 CrownCrete U	3.13E-02	2.24E-04	6.01E-04	3.21E-02
838 CrownCrete U	5.69E-01	1.22E-02	6.01E-04	5.82E-01
8175 CrownPro	1.47E-02	2.15E-04	6.01E-04	1.55E-02
8175 Slow CrownPro	1.46E-02	2.15E-04	6.01E-04	1.54E-02
8195 CrownPro	1.38E-02	2.41E-04	6.01E-04	1.46E-02
8100 CrownCote	4.29E-03	7.35E-05	6.01E-04	4.97E-03
8115 Crown Pro	2.39E-02	1.96E-04	6.01E-04	2.46E-02
8202 CrownPrime	7.48E-03	1.00E-04	6.01E-04	8.18E-03
8312 CrownCove	1.01E-01	8.14E-04	6.01E-04	1.02E-01
7500 CrownPro	1.98E-02	2.50E-04	6.01E-04	2.06E-02
8601 CrownPro	6.28E-03	7.83E-05	6.01E-04	6.96E-03
8602 CrownPro	1.64E-02	2.24E-04	6.01E-04	1.72E-02

c) Waste/Output flow Indicators

Indicator/LCI Metric	HWD (kg)			
Product	Life cycle stage			
	A1	A2	A3	Total (A1-A3)
8320 CrownShield	9.48E-02	5.68E-04	3.40E-03	9.88E-02
8303 CrownShield	1.52E-01	1.06E-03	3.40E-03	1.56E-01
8511 CrownShield	2.52E-01	1.52E-03	3.40E-03	2.57E-01
352 CrownShield	9.88E-02	9.82E-04	3.40E-03	1.03E-01
320 CrownShield	9.26E-02	4.77E-04	3.40E-03	9.64E-02
814 CrownCrete-U	2.08E+00	6.53E-02	3.40E-03	2.15E+00
818 CrownCrete-U	1.09E+00	2.59E-02	3.40E-03	1.12E+00
810 CrownCrete U	1.49E-01	2.20E-03	3.40E-03	1.54E-01
838 CrownCrete U	2.73E+00	1.19E-01	3.40E-03	2.85E+00
8175 CrownPro	1.08E-01	2.11E-03	3.40E-03	1.13E-01
8175 Slow CrownPro	1.07E-01	2.11E-03	3.40E-03	1.13E-01
8195 CrownPro	1.09E-01	2.36E-03	3.40E-03	1.15E-01
8100 CrownCote	3.61E-02	7.20E-04	3.40E-03	4.02E-02
8115 Crown Pro	1.18E-01	1.92E-03	3.40E-03	1.24E-01
8202 CrownPrime	4.97E-02	9.80E-04	3.40E-03	5.41E-02
8312 CrownCove	1.06E+00	7.98E-03	3.40E-03	1.07E+00
7500 CrownPro	1.72E-01	2.46E-03	3.40E-03	1.78E-01
8601 CrownPro	4.52E-02	7.68E-04	3.40E-03	4.93E-02
8602 CrownPro	1.32E-01	2.20E-03	3.40E-03	1.38E-01
NHWD (kg)				
8320 CrownShield	2.08E+00	1.01E-02	2.57E-01	2.35E+00
8303 CrownShield	3.37E+00	1.93E-02	2.57E-01	3.65E+00
8511 CrownShield	4.91E+00	2.88E-02	2.57E-01	5.19E+00
352 CrownShield	2.18E+00	1.82E-02	2.57E-01	2.46E+00
320 CrownShield	2.05E+00	8.12E-03	2.57E-01	2.31E+00
814 CrownCrete-U	1.20E+02	1.31E+00	2.57E-01	1.21E+02
818 CrownCrete-U	6.25E+01	5.18E-01	2.57E-01	6.33E+01
810 CrownCrete U	8.52E+00	4.40E-02	2.57E-01	8.82E+00
838 CrownCrete U	1.53E+02	2.39E+00	2.57E-01	1.55E+02
8175 CrownPro	2.45E+00	4.21E-02	2.57E-01	2.75E+00
8175 Slow CrownPro	2.43E+00	4.21E-02	2.57E-01	2.73E+00
8195 CrownPro	2.50E+00	4.73E-02	2.57E-01	2.80E+00
8100 CrownCote	7.87E-01	1.44E-02	2.57E-01	1.06E+00
8115 Crown Pro	5.88E+00	3.84E-02	2.57E-01	6.18E+00
8202 CrownPrime	1.17E+00	1.96E-02	2.57E-01	1.45E+00
8312 CrownCove	2.09E+01	1.60E-01	2.57E-01	2.13E+01
7500 CrownPro	4.06E+00	4.91E-02	2.57E-01	4.36E+00
8601 CrownPro	1.03E+00	1.54E-02	2.57E-01	1.30E+00
8602 CrownPro	2.99E+00	4.39E-02	2.57E-01	3.29E+00
RWD (kg)				
8320 CrownShield	1.64E-05	9.31E-08	2.56E-06	1.91E-05
8303 CrownShield	2.64E-05	1.81E-07	2.56E-06	2.92E-05
8511 CrownShield	3.43E-05	2.82E-07	2.56E-06	3.71E-05

352 CrownShield	1.74E-05	1.74E-07	2.56E-06	2.01E-05
320 CrownShield	1.59E-05	7.12E-08	2.56E-06	1.86E-05
814 CrownCrete-U	2.78E-04	1.34E-05	2.56E-06	2.94E-04
818 CrownCrete-U	1.46E-04	5.33E-06	2.56E-06	1.54E-04
810 CrownCrete U	2.00E-05	4.53E-07	2.56E-06	2.30E-05
838 CrownCrete U	3.64E-04	2.46E-05	2.56E-06	3.91E-04
8175 CrownPro	1.90E-05	4.34E-07	2.56E-06	2.20E-05
8175 Slow CrownPro	1.90E-05	4.34E-07	2.56E-06	2.20E-05
8195 CrownPro	2.00E-05	4.87E-07	2.56E-06	2.31E-05
8100 CrownCote	6.51E-06	1.48E-07	2.56E-06	9.22E-06
8115 Crown Pro	2.06E-05	3.95E-07	2.56E-06	2.35E-05
8202 CrownPrime	9.05E-06	2.02E-07	2.56E-06	1.18E-05
8312 CrownCove	1.69E-04	1.64E-06	2.56E-06	1.73E-04
7500 CrownPro	1.99E-05	5.06E-07	2.56E-06	2.30E-05
8601 CrownPro	8.13E-06	1.58E-07	2.56E-06	1.09E-05
8602 CrownPro	2.30E-05	4.52E-07	2.56E-06	2.60E-05

CRU (kg)

8320 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8303 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8511 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
352 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
320 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
814 CrownCrete-U	0.00E+00	0.00E+00	0.00E+00	0.00E+00
818 CrownCrete-U	0.00E+00	0.00E+00	0.00E+00	0.00E+00
810 CrownCrete U	0.00E+00	0.00E+00	0.00E+00	0.00E+00
838 CrownCrete U	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8175 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8175 Slow CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8195 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8100 CrownCote	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8115 Crown Pro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8202 CrownPrime	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8312 CrownCove	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7500 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8601 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8602 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00

MR (kg)

8320 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8303 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8511 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
352 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
320 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
814 CrownCrete-U	1.99E-05	0.00E+00	0.00E+00	1.99E-05
818 CrownCrete-U	6.67E-06	0.00E+00	0.00E+00	6.67E-06
810 CrownCrete U	3.05E-07	0.00E+00	0.00E+00	3.05E-07
838 CrownCrete U	4.13E-05	0.00E+00	0.00E+00	4.13E-05
8175 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8175 Slow CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8195 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8100 CrownCote	0.00E+00	0.00E+00	0.00E+00	0.00E+00

8115 Crown Pro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8202 CrownPrime	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8312 CrownCove	2.21E-07	0.00E+00	0.00E+00	2.21E-07
7500 CrownPro	2.09E-07	0.00E+00	0.00E+00	2.09E-07
8601 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8602 CrownPro	6.15E-07	0.00E+00	0.00E+00	6.15E-07
MER (kg)				
8320 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8303 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8511 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
352 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
320 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
814 CrownCrete-U	5.49E-06	0.00E+00	0.00E+00	5.49E-06
818 CrownCrete-U	1.84E-06	0.00E+00	0.00E+00	1.84E-06
810 CrownCrete U	8.41E-08	0.00E+00	0.00E+00	8.41E-08
838 CrownCrete U	1.14E-05	0.00E+00	0.00E+00	1.14E-05
8175 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8175 Slow CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8195 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8100 CrownCote	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8115 Crown Pro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8202 CrownPrime	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8312 CrownCove	6.10E-08	0.00E+00	0.00E+00	6.10E-08
7500 CrownPro	5.76E-08	0.00E+00	0.00E+00	5.76E-08
8601 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8602 CrownPro	1.69E-07	0.00E+00	0.00E+00	1.69E-07
EEE (MJ)				
8320 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8303 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8511 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
352 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
320 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
814 CrownCrete-U	1.94E-04	0.00E+00	0.00E+00	1.94E-04
818 CrownCrete-U	6.49E-05	0.00E+00	0.00E+00	6.49E-05
810 CrownCrete U	2.97E-06	0.00E+00	0.00E+00	2.97E-06
838 CrownCrete U	4.02E-04	0.00E+00	0.00E+00	4.02E-04
8175 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8175 Slow CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8195 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8100 CrownCote	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8115 Crown Pro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8202 CrownPrime	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8312 CrownCove	2.15E-06	0.00E+00	0.00E+00	2.15E-06
7500 CrownPro	2.03E-06	0.00E+00	0.00E+00	2.03E-06
8601 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8602 CrownPro	5.98E-06	0.00E+00	0.00E+00	5.98E-06
EET (MJ)				
8320 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8303 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8511 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00

352 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
320 CrownShield	0.00E+00	0.00E+00	0.00E+00	0.00E+00
814 CrownCrete-U	4.14E-03	0.00E+00	0.00E+00	4.14E-03
818 CrownCrete-U	1.39E-03	0.00E+00	0.00E+00	1.39E-03
810 CrownCrete U	6.35E-05	0.00E+00	0.00E+00	6.35E-05
838 CrownCrete U	8.60E-03	0.00E+00	0.00E+00	8.60E-03
8175 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8175 Slow CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8195 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8100 CrownCote	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8115 Crown Pro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8202 CrownPrime	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8312 CrownCove	4.60E-05	0.00E+00	0.00E+00	4.60E-05
7500 CrownPro	4.35E-05	0.00E+00	0.00E+00	4.35E-05
8601 CrownPro	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8602 CrownPro	1.28E-04	0.00E+00	0.00E+00	1.28E-04

d) Carbon Emissions and Removals Indicators

Biogenic carbon emissions and removals are not relevant to the studied product system and are therefore not reported in this EPD.

Information on biogenic carbon at factory gate:

Product	Biogenic carbon content in product (kg C)	Biogenic carbon content in packaging (kg C)
8320 CrownShield	0.00E+00	0.00E+00
8303 CrownShield	0.00E+00	0.00E+00
8511 CrownShield	0.00E+00	0.00E+00
352 CrownShield	0.00E+00	0.00E+00
320 CrownShield	0.00E+00	0.00E+00
814 CrownCrete-U	0.00E+00	0.00E+00
818 CrownCrete-U	0.00E+00	0.00E+00
810 CrownCrete U	0.00E+00	0.00E+00
838 CrownCrete U	0.00E+00	0.00E+00
8175 CrownPro	0.00E+00	0.00E+00
8175 Slow CrownPro	0.00E+00	0.00E+00
8195 CrownPro	0.00E+00	0.00E+00
8100 CrownCote	0.00E+00	0.00E+00
8115 Crown Pro	0.00E+00	0.00E+00
8202 CrownPrime	0.00E+00	0.00E+00
8312 CrownCove	0.00E+00	0.00E+00
7500 CrownPro	0.00E+00	0.00E+00

8601 CrownPro	0.00E+00	0.00E+00
8602 CrownPro	0.00E+00	0.00E+00

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂

ADDITIONAL ENVIRONMENTAL INFORMATION

Greenhouse gas emissions from the use of electricity in the manufacturing phase

National production mix from import, low voltage (production of transmission lines, in addition to direct emissions and losses in grid) of applied electricity for the manufacturing process (A3).

Electricity mix	Source	Amount	Unit
Market for electricity, medium voltage (kWh) – US-WECC	Ecoinvent 3.10.1	395.26	g CO ₂ -eq/kWh

Dangerous substances

The following products contain substance(s) listed in the REACH Candidate List of Substances of Very High Concern (SVHCs).

Product name	Substance	CAS RN
8320 CrownShield	4-Nonylphenol (branched)	84852-15-3
	Octamethylcyclotetrasiloxane	556-67-2
	p-tert-butylphenol	98-54-4
8303 CrownShield	4-Nonylphenol (branched)	84852-15-3
	Octamethylcyclotetrasiloxane	556-67-2
	p-tert-butylphenol	98-54-4
8511 CrownShield	4-Nonylphenol (branched)	84852-15-3
352 CrownShield	4-Nonylphenol (branched)	84852-15-3
	Octamethylcyclotetrasiloxane	556-67-2
320 CrownShield	4-Nonylphenol (branched)	84852-15-3
	Octamethylcyclotetrasiloxane	556-67-2
8312 CrownCove	p-tert-butylphenol	98-54-4
8602 CrownPro	p-tert-butylphenol	98-54-4
	Methylpyrrolidone	872-50-4

Environmental and Health

- Crown Polymers meet all federal and state environmental and occupational health regulations during manufacturing.
- Delayed emissions are not considered in this study.
- All recommendations shall be utilized as indicated by TDS/MSDS and installation guidelines.
- All environmental/technical certifications can be found at:
<https://crownpolymers.com/about/technical-certifications-documents/>
- Further information can be accessed at <https://crownpolymers.com/>.

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