

# **Environmental Product Declaration**

Sherwin William Armorseal 8100 Satin Flooring System





Program Operator	NSF International 789 N. Dixboro, Ann Arbor, MI 48105  www.nsf.org  Certified Environmental Product Declaration  www.nsf.org					
PCR identification	PCR for Resinous Floor Coatings NSF International National Center for Sustainability Standards Valid through December 17, 2023					
Manufacturer Name and Manufacturing Address	Sherwin Williams 1426 W 3rd St, Cleveland, OH 44113					
Product Description	Armorseal 8100 Satin Flooring Systems are a set of resinous floor coatings. Under the reference PCR, Armorseal 8100 Satin Flooring Systems fall under the following classification: "Thin-mil: A resin rich coating system typically comprised of a primer, body coat(s), and topcoat installed less than 40 mils."					
Product Category	Thin-mil floor coatings					
Declaration Number	EPD 11098					
Declared Product and Functional Unit	Armorseal 8100 Satin Flooring System					
	1 m² of covered and protected flooring surface for a period of 15 years (commercial techincal service life), 10 years (commercial market service life), and 5 years (industrial market service life and technical service life)					
Product's intended Application and Use	Commercial Flooring					
Market Lifetimes Used in Assessment	10 Years for Commercial Application, 5 Years for Industrial Application					
Technical Lifetimes Used in Assessment	15 Years for Commercial Application, 5 Years for Industrial Application					
Markets of Applicability	North America					
Information on where explanatory material can be obtained	https://industrial.sherwin-williams.com/na/us/en/protective-marine/catalog/product/protective-and-marine-coatings/products-by-industry.11543396/armorseal-8100.PCP 57503.html					
Date of Issue	06/19/2025					
Period of Validity	5 years from date of issue					
EPD Type	Product Specific					
EPD Scope	Cradle to Grave					
Year of reported manufacturer primary data	2023					
LCA Software and Version Number	Sphera LCA for Experts (fka Gabi) 10.9					
LCI Database and Version Number	Sphera Managed LCA Content (fka Gabi) 2024.2					
LCIA Methodology and Version Number	IPCC AR6, TRACI 2.1, CML 2001-Aug 2016					
This declaration was independently verified in accordance with ISO 14025: 2006. The UL Environment "Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Project Report," v3.1 (February 2018), based on CEN Norm EN 15804 (2012) and ISO 21930:2017, serves as the core PCR, with additional considerations from the USGBC/UL Environment Part A Enhancement (2017)	Jack Geibig – EcoForm  jgeibig@ecoform.com  Jack Heilig					
This life cycle assessment was conducted in accordance with ISO 14044 and the reference PCR by:	WAP Sustainability					
This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:	Jack Geibig – EcoForm  igeibig@ecoform.com  jack Heiling					
Limitations:	/					

In order to support comparative assertions, this EPD meets all comparability requirements stated in ISO 14025:2006. However, differences in certain assumptions, data quality, and variability between LCA data sets may still exist. As such, caution should be exercised when evaluating EPDs from different manufacturers or programs, as the EPD results may not be entirely comparable. Any EPD comparison must be carried out at the construction works level per ISO 21930:2017 guidelines. The results of this EPD reflect an average performance by the product and its actual impacts may vary on a case-to-case basis.



#### **Company Profile**

Sherwin-Williams is an American paints and coatings company based in Cleveland, Ohio. It is primarily engaged in the manufacture, distribution, and sale of paints, coatings, floorcoverings, and related products. For more information about Sherwin-Williams, the products contained in this EPD, or other Sherwin-Williams products call 1-866-540-1299 or email coatings@sherwin.com.

#### **Product Definition and Characteristics**

Armorseal 8100 Satin is a family of resinous floor coating product systems manufactured by Sherwin Williams in its Andover, KS facility. The coatings offer outstanding durability, chemical resistance, and bacterial/fungal growth resistance. Under the reference PCR, Armorseal 8100 Satin Flooring falls under the following classification:

"Thin-mil: A resin rich coating system typically comprised of a primer, body coat(s), and topcoat installed less than 40 mils."



This EPD covers five unique Armorseal Satin products. Armorseal 8100 Satin product installations are two layers each with a Part A and Part B component. Part A components function as resins and Part B components function as hardeners. When combined, these components generate durable flooring fit for a wide variety of applications. As illustrated in Table 1, Armorseal products are referred to herein by the SKUs of the Part A and Part B used in each installation (e.g., a product that uses Part A: B70W08161 and Part B: B70V08100 is denoted as B70W08161\_B70V08100). Table 3 illustrates the material composition of the components included in the Armorseal 8100 Satin products covered in this EPD. For more information about specific products, please visit www.sherwin.com.

This EPD presents full LCA results for the highest and lowest impact products within this product family (in bold text in Table 1). Global Warming Potential (GWP) results are listed for all other products following the representative product results tables.

Table 1: Armorseal 8100 products covered in this EPD and their mass per functional unit for all RSL scenarios

Product Name (Part A_Part B)	Commercial Market Service Life (kg)	Commercial Technical Service Life (kg)	Industrial Market or Technical Service Life (kg)
B70W08161_B70V08100	2.84	1.90	5.69
B70W08163_B70V08100	3.03	2.02	6.06
B70T08164_B70V08100	2.90	1.93	5.80
B70A08160_B70V08100	3.12	2.08	6.25
B70A08161_B70V08100	3.09	2.06	6.19





#### **Functional Unit**

The functional unit for the study (per the PCR) is 1 m² of covered and protected floor surface over a building's Estimated Service Life (ESL) of 60 years. Armorseal 8100 Satin products are typically installed in commercial and industrial settings. Per the PCR, to achieve this functional unit, these products are modeled with the following Reference Service Life (RSL) scenarios: The reference service life (RSL) of Armorseal for all industrial applications is 5 years and commercial application is 10- or 15-years Market or Technical Service Life respectively. Table 1 shows the full product mass for all products and RSL scenarios covered in this EPD. Table 2 and Table 5 show additional details related to the functional unit.

Table 2: Functional Unit Details

Component	Component Type	Mass per m <sup>2</sup> Installation (kg)*
B70W08161		0.182
B70W08163		0.169
B70T08164	Part A	0.158
B70A08160		0.177
B70A08161		0.174
B70V08100	Part B	0.0384

<sup>\*</sup>Mass of product only (no packaging) including 2% installation scrap rate. Note that these masses are per a single layer of product. Armorseal 8100 products are generally applied as two layers of identical composition.



Table 3: Material composition of Armorseal 8100 Satin components

	B70W08161	B70W08163	B70T08164	B70A08160	B70A08161	B70V08100
Coalescing Agent	0%	0%	2%	0%	0%	0%
Curing agent	0%	0%	0%	0%	0%	44%
Defoamer	1%	1%	0%	0%	0%	1%
Dispersion	1%	1%	0%	1%	1%	0%
Epoxy Resin	65%	70%	75%	67%	68%	0%
Filler	0%	0%	0%	6%	9%	0%
Pigment	18%	9%	0%	9%	6%	0%
Polymer	4%	6%	7%	5%	5%	4%
Viscosity Agent	2%	2%	0%	2%	2%	1%
Water	10%	12%	15%	9%	10%	51%

Table 4: List of hazardous materials in Armorseal 8100 Gloss formulas\*

Ingredient	Percentage	CAS#
Epoxy Resin	0-50	69761-19-9
Titanium Dioxide	0-25	13463-67-7
Polypropylene glycol alkyl phenyl ether	0-1	9064-13-5
Poly(oxypropylene)diamine	0-3	9046-10-0
3,6,9-triazaundecamethylenediamine	0-1	100-51-6
Carbon Black	0-0.3	1333-86-4
Iron Oxide	0-10	1309-37-1

<sup>\*</sup> Note: these materials may appear in as few as a single component formulation included in the products covered in this EPD.

#### **Reference Service Life**

According to the reference PCR, there are two service life scenarios assigned to the product system according to the coating type and the product designed application. Table 5 provides the scenario details.

Table 5: Reference service life scenarios

PCR Scenario	Reference Service Life
Commercial Estimated Market Service Life	10 years
Commercial Estimated Technical Service Life	15 years
Industrial Estimated Market Service Life	5 years
Industrial Estimated Technical Service Life	5 years

#### **System Boundary**

This LCA is a Cradle-to-Grave study. An overview of the system boundary is shown in Figure 1 and a summary of the life cycle stages included in this LCA is presented in Table 6.



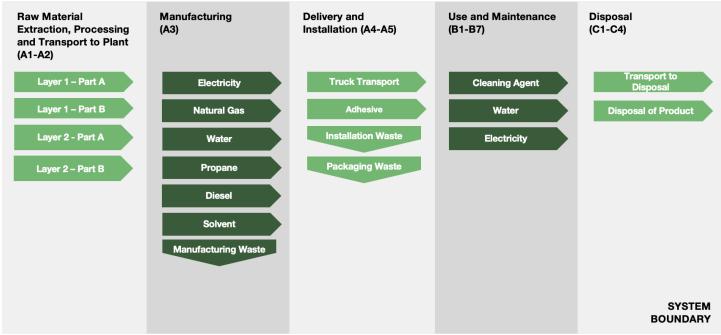


Figure 1: System Boundary Diagram

Table 6: Life Cycle Stages Included in the Study

Pro	oducti	on	Consti	ruction		Use					End o	of Life		Benefits & Loads Beyond System Boundary		
A1	A2	А3	A4	A5	В1	B2	В3	B4	B5	В6	В7	C1	C2	СЗ	C4	D
Raw Material Supply	Transport	Manufacturing	Transport to Site	Assembly/Install	Use	Maintenance	Repair	Replacement	Refurbishment	Operational Energy Use	Operational Water Use	Deconstruction	Transport	Waste Processing	Disposal	Reuse, Recovery, Recycling Potential
Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	ND

X = Module Included in LCA, ND = Module not Declared



# **Technical information and Scenarios**

Table 7: Transport to Building Site (A4)

Parameter	Unit	Value
Vehicle Type	1	Heavy Heavy-duty Diesel Truck / 53,333 Ib payload - 8b
Fuel Efficiency	L/100km	42
Fuel Type	-	Diesel
Distance	km	1,206
Capacity Utilization	%	67%
Weight of Products Transported*	kg	0.948-1.04

<sup>\*</sup> Includes matrix and aggregate

Table 8: Installation Scenario Details (A5)

Table 6. Installation deciding (Ad)					
Parameter	Unit	Value			
Product wastage	%	2			
Waste materials at the construction site before waste processing, generated by product installation	kg	0.199-0.201			
Packaging Waste to Landfill	kg	0.0133			
Packaging Waste to Incineration	kg	0.0126			
Packaging Waste to Recycling	kg	0.019			
Biogenic carbon content of packaging	kg CO <sub>2</sub>	0.119			

<sup>\*</sup> Installation instructions can be found here.

Table 9: Maintenance Scenario Details (B2)

Parameter	Unit	Value
Maintenance Process	-	Cleaning, manual
Maintenance Cycle	#/ESL	220
Ancillary materials for maintenance: neutral floor cleaner	kg	26.99
Waste material resulting from maintenance: wastewater	kg	834
Net fresh water consumption during maintenance	m³	0.833

Table 10: Replacement Scenario Details (B4)

Parameter	Unit	Value
Replacement cycle	#/ESL	10-year RSL: 5
		15-year RSL: 3
		5-year RSL: 11

Table 11: End-of-Life Scenario Details (C1-C4)

Parameter	Unit	Value
Collected as mixed construction waste	kg	0.768-0.862
Waste to Landfill	kg	0.768-0.862
Distance to Landfill	km	11





<sup>\*</sup>Per the PCR used in this study, the maintenance scenario includes daily cleaning via wet mopping with cleaning solution. For 1 m2, this includes 220 cleanings using 1 gallon of water and 0.00313 gallons of a neutral cleaning solution. For this study it was assumed that any cleaning water was left on the flooring surface to dry meaning that there is no water sent to wastewater treatment as it is assumed to be 100% evaporated.



# **Data Quality Assessment**

#### **Overall Data Quality**

Overall data quality is considered good. The following sections provide more nuanced discussion of data quality as it pertains to the geograpical, temporal, and time coverage of the data used in this study.

#### **Geographical Coverage**

The geographical scope of the manufacturing portion of the life cycle is United States. All primary data were collected from the manufacturer. The geographic coverage of primary data is considered very good.

The geographical scope of the raw material acquisition is North America. Customer distribution, site installation, and use portions of the life cycle is within North America.

In selecting secondary data (i.e., MLC Datasets), priority was given to the accuracy and representativeness of the data. When available and deemed of significant quality, country-specific data was used. However, priority was given to technological relevance and accuracy in selecting secondary data. This often led to the substitution of regional and/or global data for country-specific data. Overall geographic data quality is considered good.

#### **Time Coverage**

Primary data were provided by the manufacturer and represent all information for calendar year 2023. Using this data meets the PCR requirements. Time coverage of this primary data is considered very good.

Data necessary to model cradle-to-gate unit processes were sourced from Sphera's MLC LCI datasets. Time coverage of the MLC datasets varies from approximately 2010 to present. All datasets rely on at least one 1-year average data. Overall time coverage of the datasets is considered good and meets the requirement of the PCR that all data be updated within a 10- year period. Similarly to geographical coverage, priority was given to technological relevance and accuracy in selecting secondary data which resulted in the use of some datasets created outside of the typical 10-year window.

#### **Technological Coverage**

Primary data provided by the manufacturer is specific to the technology the company uses in manufacturing their product. It is site-specific and considered of good quality. It is worth noting that the energy and water used in manufacturing the product includes overhead energy such as lighting, heating, and sanitary use of water. Sub-metering was not available to extract process-only energy and water use from the total energy use. Sub-metering would improve the technological coverage of data quality.

Data necessary to model cradle-to-gate unit processes were sourced from MLC LCI datasets. Technological coverage of the datasets is considered good relative to the actual supply chain of the manufacturer. Given that the majority of materials used in Sherwin Williams resinous flooring products are pre-made chemical compositions of a proprietary nature LCA practitioners were forced to use available proxy datasets to model specific materials. While improved life cycle data from suppliers would improve technological coverage, the use of lower-quality generic and proxy datasets does meet the goal of this LCA.

#### **Secondary Data**

Whenever possible, primary data was used for all processes. When primary data did not exist, secondary data for raw material production, generic data was used from the MLC database.

#### **Cut-off Criteria**

Cumulative excluded material inputs, energy inputs, and environmental impacts must not exceed 5% based on total weight, energy use, or environmental impact of the functional unit. Inputs or outputs greater than 1% (based on total mass of the final product) were included within the scope of analysis. Material inputs less than 1% were included if sufficient data was available to warrant inclusion and/or the material input was thought to have significant environmental impact. Cumulative excluded material inputs and environmental impacts are less than 5% based on total weight and impact of the functional unit.



# **Life Cycle Assessment Results**

All results are given per functional unit, which is 1 m² of covered and protected floor surface. Given the quantity of products included in this study, a selection of product results are presented in this section. Results for the highest impact and lowest impact product configuration are presented in full herein with separate results for both products are reported for each RSL scenario applicable to that product. Note that the majority of other environmental impacts for these products trend with GWP Additionally, IPCC AR6 Global Warming Potential (GWPe) results are presented for all products following the full results for the highest and lowest impact configurations. The highest impact configuration is B70V08100 and the lowest impact configuration is B70T08164\_B70V08100.

Significant data limitations currently exist within the LCI data used to generate waste metrics for Life Cycle Assessments and Environmental Product Declarations. The waste metrics were calculated in a way conformant with the requirements of ISO 21930:2017, but these values represent rough estimates and are for informational purposes only. As such, no decisions regarding actual cradle-grave waste performance between products should be derived from these reported values.

Acronyms and LCIA methods included in the results tables are detailed in Table 12.

Table 12: Abbreviations and Impact Assessment Methods

Abbreviation	Name	Unit	Impact Assessment Method
	LCIA Results		
GWP excl. bio C	Global warming potential (100 years, excluding biogenic CO2)	kg CO <sub>2</sub> eq	IPCC AR6
GWP incl. bio C	Global warming potential (100 years, including biogenic CO2)	kg CO <sub>2</sub> eq	IPCC AR6
AP	Acidification potential of soil and water	kg SO <sub>2</sub> eq	TRACI 2.1
EP	Eutrophication potential	kg N eq	TRACI 2.1
ODP	Depletion of stratospheric ozone layer	kg CFC 11 eq	TRACI 2.1
SFP	Smog formation potential	kg O₃ eq	TRACI 2.1
ADPF	Abiotic depletion potential for fossil fuel resources	MJ	CML 2001
	Carbon Emissions and Removals		
BCRP	Biogenic Carbon Removal from Product	kg CO <sub>2</sub>	n/a
BCEP	Biogenic Carbon Emission from Product	kg CO <sub>2</sub>	n/a
BCRK	Biogenic Carbon Removal from Packaging	kg CO <sub>2</sub>	n/a
BCEK	Biogenic Carbon Emission from Packaging	kg CO <sub>2</sub>	n/a
BCEW	Biogenic Carbon Emission from Combustion of Waste from Renewable Sources Used in Production Processes	kg CO <sub>2</sub>	n/a
CCE	Calcination Carbon Emissions	kg CO <sub>2</sub>	n/a
CCR	Carbonation Carbon Removals	kg CO <sub>2</sub>	n/a
CWNR	Carbon Emissions from Combustion of Waste from Non- Renewable Sources used in Production Processes	kg CO <sub>2</sub>	n/a
	Resource Use		
RPR <sub>E</sub>	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	MJ	n/a
RPR™	Use of renewable primary energy resources used as raw materials	MJ	n/a
NRPRE	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	MJ	n/a
NRPR <sub>M</sub>	Use of non-renewable primary energy resources used as raw materials	MJ	n/a
SM	Use of secondary materials	kg	n/a
RSF	Use of renewable secondary fuels	MJ	n/a
NRSF	Use of non-renewable secondary fuels	MJ	n/a
RE	Recovered energy	MJ	n/a
FW	Net use of fresh water	m <sup>3</sup>	n/a



# Environmental Product Declaration for Armorseal 8100 Satin Flooring System

Abbreviation	Name	Unit	Impact Assessment Method
	Output Flows and Waste		
HWD	Disposed-of-hazardous waste	kg	n/a
NHWD	Disposed-of non-hazardous waste	kg	n/a
HLRW	High-level radioactive waste, conditioned, to final repository	kg	n/a
ILLRW	Intermediate- and low-level radioactive waste, conditioned, to final repository	kg	n/a
CRU	Components for reuse	kg	n/a
MR	Materials for recycling	kg	n/a
MER	Materials for energy recovery	kg	n/a
EEE	Exported electrical energy	MJ	n/a
EET	Exported thermal energy	MJ	n/a



Armorseal 8100 Satin Highest Impact Product (B70W08161\_B70V08100) Industrial Service Life Scenario – 5-yr RSL

# The LCIA results presented below are for 1 m2 of Armorseal 8100 Satin (B70W08161 B70V08100), 5-year Industrial RSL

Table 13: LCIA results for Armorseal 8100 Satin B70W08161 B70V08100, per functional unit 5-year RSL

		16	able 13: LCIA	results for Ari	norseal 8 100	Saun <b>Brovo</b>	8101_B/UVU	<u>8100</u> , per iuni	ctional unit 5-y	ear RSL				
Impact Category	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4
					IPCC AF	R6 Global Wa	rming Potenti	al						
GWPe [kg CO <sub>2</sub> eq]	1.28E+00	7.52E-02	6.09E-02	0.00E+00	1.19E+01	0.00E+00	1.56E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.84E-04	0.00E+00	9.34E-03
GWPi [kg CO₂ eq]	1.19E+00	7.53E-02	7.22E-02	0.00E+00	1.13E+01	0.00E+00	1.48E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.84E-04	0.00E+00	9.30E-03
				TR	ACI LCIA Imp	acts (North A	merica) and (	CML ADPf						
AP [kg SO₂ eq]	3.31E-03	3.50E-04	1.57E-04	0.00E+00	1.97E-02	0.00E+00	4.25E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.09E-06	0.00E+00	4.85E-05
EP [kg N eq]	2.67E-04	3.11E-05	1.60E-05	0.00E+00	4.36E-03	0.00E+00	3.48E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-07	0.00E+00	2.09E-06
ODP [kg CFC 11 eq]	9.04E-14	2.22E-16	1.98E-15	0.00E+00	3.56E-10	0.00E+00	1.02E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-18	0.00E+00	4.48E-16
SFP [kg O₃ eq]	5.89E-02	8.04E-03	2.70E-02	0.00E+00	3.19E-01	0.00E+00	1.04E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-05	0.00E+00	8.67E-04
ADPf [MJ]	2.33E+01	9.88E-01	5.22E-01	0.00E+00	2.55E+02	0.00E+00	2.75E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.05E-03	0.00E+00	1.38E-01
					Carb	on Emissions	and Uptake							
BCRP [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCRK [kg CO <sub>2</sub> ]	1.01E-01	0.00E+00	2.03E-03	0.00E+00	0.00E+00	0.00E+00	1.14E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEK [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00	0.00E+00	1.14E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEW [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCE [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCR [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNR [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



# The LCI results presented below are for 1 m2 of Armorseal 8100 Satin (B70W08161\_B70V08100), 5-year Industrial RSL

Table 14: Resource use, waste, and output flow results for Armorseal 8100 Satin B70W08161 B70V08100, per functional unit 5-year RSL

		Table 14.1	Resource use,	waste, and ot	ліриі пож resu	its for Armorse	ai 8100 Satin	B/UVVU8161_	<b>B70V08100</b> , p	er tunctional u	nıt 5-year RSL	_		
Impact Category	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4
						Resource	Use Indicators	3						
RPR <sub>E</sub> [MJ]	2.15E+00	4.41E-02	5.03E-02	0.00E+00	2.54E+01	0.00E+00	2.48E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.25E-04	0.00E+00	1.76E-02
RPR <sub>M</sub> [MJ]	8.75E-01	0.00E+00	1.75E-02	0.00E+00	0.00E+00	0.00E+00	9.81E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRPR <sub>E</sub> [MJ]	2.23E+01	9.96E-01	5.07E-01	0.00E+00	2.67E+02	0.00E+00	2.64E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.09E-03	0.00E+00	1.42E-01
NRPR <sub>M</sub> [MJ]	2.17E+00	0.00E+00	4.33E-02	0.00E+00	0.00E+00	0.00E+00	2.43E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SM [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW [m <sup>3</sup> ]	6.73E-03	1.46E-04	1.73E-04	0.00E+00	9.39E-01	0.00E+00	7.77E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.49E-07	0.00E+00	1.83E-05
					O	utput Flows ar	nd Waste Cate	gories						
HWD [kg]	4.25E-02	0.00E+00	8.50E-04	0.00E+00	0.00E+00	0.00E+00	4.77E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD [kg]	4.43E-03	0.00E+00	9.86E-02	0.00E+00	0.00E+00	0.00E+00	5.89E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.33E-01
HLRW [kg]	4.97E-07	3.56E-09	1.21E-08	0.00E+00	5.35E-06	0.00E+00	5.66E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-11	0.00E+00	1.69E-09
ILLRW [kg]	4.17E-04	3.00E-06	1.01E-05	0.00E+00	4.41E-03	0.00E+00	4.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.53E-08	0.00E+00	1.51E-06
CRU [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR [kg]	0.00E+00	0.00E+00	3.80E-02	0.00E+00	0.00E+00	0.00E+00	4.17E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE [MJ]	7.59E-02	0.00E+00	3.44E-02	0.00E+00	0.00E+00	0.00E+00	1.21E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET [MJ]	1.39E-02	0.00E+00	1.34E-02	0.00E+00	0.00E+00	0.00E+00	3.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



Armorseal 8100 Satin Highest Impact Product (B70W08161\_B70V08100) Commercial Market Service Life Scenario – 10-yr RSL

The LCIA results presented below are for 1 m2 of Armorseral 8100 Satin B70W08161 B70V08100, 10-year Commercial Market Service Life RSL

Table 15: LCIA results for Armorseal 8100 Satin B70W08161\_B70V08100, per functional unit 10-year RSL

		10	DIG TO. LOIA I	Coulto for Affi	1013641 0100	Jatiii Di Ovvo	8101_B/UVU	per runc	lionar unit 10-	year NOL				
Impact Category	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	С3	C4
					IPCC AF	R6 Global Wa	rming Potenti	al						
GWPe [kg CO <sub>2</sub> eq]	1.28E+00	7.52E-02	6.09E-02	0.00E+00	1.19E+01	0.00E+00	7.11E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.84E-04	0.00E+00	9.34E-03
GWPi [kg CO <sub>2</sub> eq]	1.19E+00	7.53E-02	7.22E-02	0.00E+00	1.13E+01	0.00E+00	6.72E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.84E-04	0.00E+00	9.30E-03
				TR	ACI LCIA Imp	acts (North A	merica) and (	CML ADPf						
AP [kg SO <sub>2</sub> eq]	3.31E-03	3.50E-04	1.57E-04	0.00E+00	1.97E-02	0.00E+00	1.93E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.09E-06	0.00E+00	4.85E-05
EP [kg N eq]	2.67E-04	3.11E-05	1.60E-05	0.00E+00	4.36E-03	0.00E+00	1.58E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-07	0.00E+00	2.09E-06
ODP [kg CFC 11 eq]	9.04E-14	2.22E-16	1.98E-15	0.00E+00	3.56E-10	0.00E+00	4.65E-13	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-18	0.00E+00	4.48E-16
SFP [kg O₃ eq]	5.89E-02	8.04E-03	2.70E-02	0.00E+00	3.19E-01	0.00E+00	4.74E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-05	0.00E+00	8.67E-04
ADPf [MJ]	3.12E+00	1.42E-01	6.95E-02	0.00E+00	3.51E+01	0.00E+00	1.67E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.24E-04	0.00E+00	1.84E-02
					Carb	on Emissions	and Uptake							
BCRP [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCRK [kg CO <sub>2</sub> ]	1.01E-01	0.00E+00	2.03E-03	0.00E+00	0.00E+00	0.00E+00	5.17E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEK [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00	0.00E+00	5.17E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEW [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCE [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCR [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNR [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



# The LCI results presented below are for 1 m2 of Armorseal 8100 Satin B70W08161 B70V08100, 10-year Commercial Market Service Life RSL

Table 16: Resource use, waste, and output flow results for Armorseal 8100 Satin B70W08161 B70V08100, per functional unit 10-year RSL

		Table 16: F	Resource use,	waste, and ou	tput flow resul	ts for Armorse	al 8100 Satin <mark>I</mark>	370W08161_E	<b>370V08100</b> , pe	er functional ui	nit 10-year RS	L		
Impact Category	A1-A3	A4	A5	B1	B2	В3	B4	B5	B6	В7	C1	C2	C3	C4
						Resource	Use Indicators	3						
RPR <sub>E</sub> [MJ]	2.15E+00	4.41E-02	5.03E-02	0.00E+00	2.54E+01	0.00E+00	1.13E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.25E-04	0.00E+00	1.76E-02
RPR <sub>M</sub> [MJ]	8.75E-01	0.00E+00	1.75E-02	0.00E+00	0.00E+00	0.00E+00	4.46E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRPR <sub>E</sub> [MJ]	2.23E+01	9.96E-01	5.07E-01	0.00E+00	2.67E+02	0.00E+00	1.20E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.09E-03	0.00E+00	1.42E-01
NRPR <sub>M</sub> [MJ]	2.17E+00	0.00E+00	4.33E-02	0.00E+00	0.00E+00	0.00E+00	1.10E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SM [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW [m <sup>3</sup> ]	6.73E-03	1.46E-04	1.73E-04	0.00E+00	9.39E-01	0.00E+00	3.53E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.49E-07	0.00E+00	1.83E-05
					Oi	utput Flows an	d Waste Cate	gories						
HWD [kg]	4.25E-02	0.00E+00	8.50E-04	0.00E+00	0.00E+00	0.00E+00	2.17E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD [kg]	4.43E-03	0.00E+00	9.86E-02	0.00E+00	0.00E+00	0.00E+00	2.68E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.33E-01
HLRW [kg]	4.97E-07	3.56E-09	1.21E-08	0.00E+00	5.35E-06	0.00E+00	2.57E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-11	0.00E+00	1.69E-09
ILLRW [kg]	4.17E-04	3.00E-06	1.01E-05	0.00E+00	4.41E-03	0.00E+00	2.16E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.53E-08	0.00E+00	1.51E-06
CRU [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR [kg]	0.00E+00	0.00E+00	3.80E-02	0.00E+00	0.00E+00	0.00E+00	1.90E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE [MJ]	7.59E-02	0.00E+00	3.44E-02	0.00E+00	0.00E+00	0.00E+00	5.52E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET [MJ]	1.39E-02	0.00E+00	1.34E-02	0.00E+00	0.00E+00	0.00E+00	1.37E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



Armorseal 8100 Satin Highest Impact Product (B70W08161\_B70V08100) Commercial Technical Service Life Scenario – 15-yr RSL

The LCIA results presented below are for 1 m2 of Armorseral 8100 Satin **B70W08161\_B70V08100**, 15-year Commercial Technical Service Life RSL

Table 17: LCIA results for Armorseal 8100 Satin B70W08161\_B70V08100, per functional unit 15-year RSL

		1	able 17. LCIA	lesuits for Ari		Saliii <u>Bi UVV</u>	0101_B/0V0	<b>8100</b> , per tund	Clional unit 13	-year RSL				
Impact Category	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4
					IPCC A	R6 Global Wa	arming Potent	ial						
GWPe [kg CO₂ eq]	1.28E+00	7.52E-02	6.09E-02	0.00E+00	1.19E+01	0.00E+00	4.27E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.84E-04	0.00E+00	9.34E-03
GWPi [kg CO <sub>2</sub> eq]	1.19E+00	7.53E-02	7.22E-02	0.00E+00	1.13E+01	0.00E+00	4.03E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.84E-04	0.00E+00	9.30E-03
	_			TF	RACI LCIA Im	pacts (North A	America) and	CML ADPf						
AP [kg SO <sub>2</sub> eq]	3.31E-03	3.50E-04	1.57E-04	0.00E+00	1.97E-02	0.00E+00	1.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.09E-06	0.00E+00	4.85E-05
EP [kg N eq]	2.67E-04	3.11E-05	1.60E-05	0.00E+00	4.36E-03	0.00E+00	9.48E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-07	0.00E+00	2.09E-06
ODP [kg CFC 11 eq]	9.04E-14	2.22E-16	1.98E-15	0.00E+00	3.56E-10	0.00E+00	2.79E-13	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-18	0.00E+00	4.48E-16
SFP [kg O₃ eq]	5.89E-02	8.04E-03	2.70E-02	0.00E+00	3.19E-01	0.00E+00	2.85E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-05	0.00E+00	8.67E-04
ADPf [MJ]	3.12E+00	1.42E-01	6.95E-02	0.00E+00	3.51E+01	0.00E+00	1.00E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.24E-04	0.00E+00	1.84E-02
					Cart	on Emissions	and Uptake							
BCRP [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCRK [kg CO <sub>2</sub> ]	1.01E-01	0.00E+00	2.03E-03	0.00E+00	0.00E+00	0.00E+00	3.10E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEK [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00	0.00E+00	3.10E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEW [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCE [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCR [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNR [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



# The LCI results presented below are for 1 m2 of Armorseal 8100 Satin B70W08161 B70V08100, 15-year Commercial Technical Service Life RSL

Table 18: Resource use, waste, and output flow results for Armorseal 8100 Satin B70W08161 B70V08100, per functional unit 15-year RSL

		Table To. r	Resource use,	waste, and ou	tput now resul	is for Affiliorse	ai 0100 Saliii <mark>L</mark>	5/00000101_6	<b>570 νυσ 100</b> , ρε	er turicuoriai ui	iii 15-yeai Ko	L		
Impact Category	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
						Resource	Use Indicators	i						
RPR <sub>E</sub> [MJ]	2.15E+00	4.41E-02	5.03E-02	0.00E+00	2.54E+01	0.00E+00	6.78E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.25E-04	0.00E+00	1.76E-02
RPR <sub>M</sub> [MJ]	8.75E-01	0.00E+00	1.75E-02	0.00E+00	0.00E+00	0.00E+00	2.68E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRPR <sub>E</sub> [MJ]	2.23E+01	9.96E-01	5.07E-01	0.00E+00	2.67E+02	0.00E+00	7.20E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.09E-03	0.00E+00	1.42E-01
NRPR <sub>M</sub> [MJ]	2.17E+00	0.00E+00	4.33E-02	0.00E+00	0.00E+00	0.00E+00	6.63E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SM [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW [m <sup>3</sup> ]	6.73E-03	1.46E-04	1.73E-04	0.00E+00	9.39E-01	0.00E+00	2.12E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.49E-07	0.00E+00	1.83E-05
					Oi	utput Flows an	d Waste Cate	gories						
HWD [kg]	4.25E-02	0.00E+00	8.50E-04	0.00E+00	0.00E+00	0.00E+00	1.30E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD [kg]	4.43E-03	0.00E+00	9.86E-02	0.00E+00	0.00E+00	0.00E+00	1.61E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.33E-01
HLRW [kg]	4.97E-07	3.56E-09	1.21E-08	0.00E+00	5.35E-06	0.00E+00	1.54E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-11	0.00E+00	1.69E-09
ILLRW [kg]	4.17E-04	3.00E-06	1.01E-05	0.00E+00	4.41E-03	0.00E+00	1.29E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.53E-08	0.00E+00	1.51E-06
CRU [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR [kg]	0.00E+00	0.00E+00	3.80E-02	0.00E+00	0.00E+00	0.00E+00	1.14E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE [MJ]	7.59E-02	0.00E+00	3.44E-02	0.00E+00	0.00E+00	0.00E+00	3.31E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET [MJ]	1.39E-02	0.00E+00	1.34E-02	0.00E+00	0.00E+00	0.00E+00	8.20E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



Armorseal 8100 Satin Lowest Impact Product (B70T08164\_B70V08100) Industrial Service Life Scenario – 5-yr RSL

# The LCIA results presented below are for 1 m2 of Armorseal 8100 Satin (B70T08164\_B70V08100), 5-year Industrial RSL

Table 19: LCIA results for Armorseal 8100 Satin B70W08161 B70V08100, per functional unit 5-year RSL

		16	able 19: LCIA	results for Ari	morseal 8 100	Saun <b>Brovo</b>	8101_B/UVU	<u>8100</u> , per iuni	ctional unit 5-y	rear RSL				
Impact Category	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4
					IPCC AF	R6 Global Wa	rming Potenti	al						
GWPe [kg CO <sub>2</sub> eq]	9.33E-01	6.85E-02	5.38E-02	0.00E+00	1.19E+01	0.00E+00	1.17E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.42E-04	0.00E+00	8.33E-03
GWPi [kg CO₂ eq]	8.37E-01	6.85E-02	6.50E-02	0.00E+00	1.13E+01	0.00E+00	1.08E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.42E-04	0.00E+00	8.29E-03
				TR	ACI LCIA Imp	acts (North A	merica) and (	CML ADPf						
AP [kg SO₂ eq]	1.71E-03	3.18E-04	1.24E-04	0.00E+00	1.97E-02	0.00E+00	2.42E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.75E-07	0.00E+00	4.32E-05
EP [kg N eq]	2.10E-04	2.83E-05	1.48E-05	0.00E+00	4.36E-03	0.00E+00	2.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E-07	0.00E+00	1.86E-06
ODP [kg CFC 11 eq]	7.68E-14	2.02E-16	1.71E-15	0.00E+00	3.56E-10	0.00E+00	8.71E-13	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-18	0.00E+00	3.99E-16
SFP [kg O₃ eq]	3.74E-02	7.32E-03	2.66E-02	0.00E+00	3.19E-01	0.00E+00	7.93E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-05	0.00E+00	7.73E-04
ADPf [MJ]	1.89E+01	8.99E-01	4.32E-01	0.00E+00	2.55E+02	0.00E+00	2.24E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.50E-03	0.00E+00	1.23E-01
					Carb	on Emissions	and Uptake							
BCRP [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCRK [kg CO <sub>2</sub> ]	1.01E-01	0.00E+00	2.03E-03	0.00E+00	0.00E+00	0.00E+00	1.14E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEK [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00	0.00E+00	1.14E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEW [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCE [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCR [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNR [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



# The LCI results presented below are for 1 m2 of Armorseal 8100 Satin (B70T08164\_B70V08100), 5-year Industrial RSL

Table 20: Resource use, waste, and output flow results for Armorseal 8100 Satin B70W08161 B70W08100, per functional unit 5-year RSL

		Table 20. I	Resource use,	waste, and ot	nput now resu	ILS IUI AITIIUISE	ai 0100 Saliii	DIOWVOOTOT	<b>Β/0000100</b> , ρ	er runctional u	nii o-year Not	-		
Impact Category	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	В7	C1	C2	C3	C4
						Resource	Use Indicators	3						
RPR <sub>E</sub> [MJ]	1.73E+00	4.01E-02	4.19E-02	0.00E+00	2.54E+01	0.00E+00	2.02E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.01E-04	0.00E+00	1.57E-02
RPR <sub>M</sub> [MJ]	8.75E-01	0.00E+00	1.75E-02	0.00E+00	0.00E+00	0.00E+00	9.81E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRPR <sub>E</sub> [MJ]	1.75E+01	9.06E-01	4.09E-01	0.00E+00	2.67E+02	0.00E+00	2.09E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.54E-03	0.00E+00	1.26E-01
NRPR <sub>M</sub> [MJ]	2.30E+00	0.00E+00	4.60E-02	0.00E+00	0.00E+00	0.00E+00	2.58E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SM [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW [m <sup>3</sup> ]	4.54E-03	1.33E-04	1.29E-04	0.00E+00	9.39E-01	0.00E+00	5.30E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.67E-07	0.00E+00	1.63E-05
					O	utput Flows ar	nd Waste Cate	gories						
HWD [kg]	4.25E-02	0.00E+00	8.50E-04	0.00E+00	0.00E+00	0.00E+00	4.77E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD [kg]	4.43E-03	0.00E+00	9.76E-02	0.00E+00	0.00E+00	0.00E+00	5.37E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.86E-01
HLRW [kg]	3.73E-07	3.24E-09	9.60E-09	0.00E+00	5.35E-06	0.00E+00	4.27E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E-11	0.00E+00	1.50E-09
ILLRW [kg]	3.13E-04	2.73E-06	8.05E-06	0.00E+00	4.41E-03	0.00E+00	3.57E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.37E-08	0.00E+00	1.34E-06
CRU [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR [kg]	0.00E+00	0.00E+00	3.80E-02	0.00E+00	0.00E+00	0.00E+00	4.17E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE [MJ]	7.59E-02	0.00E+00	3.44E-02	0.00E+00	0.00E+00	0.00E+00	1.21E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET [MJ]	1.39E-02	0.00E+00	1.34E-02	0.00E+00	0.00E+00	0.00E+00	3.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



Armorseal 8100 Satin Lowest Impact Product (B70T08164\_B70V08100) Commercial Market Service Life Scenario – 10-yr RSL

The LCIA results presented below are for 1 m2 of Armorseral 8100 Satin B70T08164\_B70V08100, 10-year Commercial Market Service Life RSL

Table 21: LCIA results for Armorseal 8100 Satin B70T08164 B70V08100, per functional unit 10-year RSL

		10	DIG ZT. LUIA	lesuits for Aff	norsear o roo	Jalin <b>Broto</b>	3104_B/UVU8	, per runc	uonai unit 10-	year NOL				
Impact Category	A1-A3	A4	A5	B1	B2	В3	В4	B5	В6	В7	C1	C2	С3	C4
					IPCC AF	R6 Global Wa	rming Potenti	ial						
GWPe [kg CO <sub>2</sub> eq]	9.33E-01	6.85E-02	5.38E-02	0.00E+00	1.19E+01	0.00E+00	5.32E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.42E-04	0.00E+00	8.33E-03
GWPi [kg CO₂ eq]	8.37E-01	6.85E-02	6.50E-02	0.00E+00	1.13E+01	0.00E+00	4.90E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.42E-04	0.00E+00	8.29E-03
				TR	ACI LCIA Imp	acts (North A	merica) and (	CML ADPf						
AP [kg SO₂ eq]	1.71E-03	3.18E-04	1.24E-04	0.00E+00	1.97E-02	0.00E+00	1.10E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.75E-07	0.00E+00	4.32E-05
EP [kg N eq]	2.10E-04	2.83E-05	1.48E-05	0.00E+00	4.36E-03	0.00E+00	1.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E-07	0.00E+00	1.86E-06
ODP [kg CFC 11 eq]	7.68E-14	2.02E-16	1.71E-15	0.00E+00	3.56E-10	0.00E+00	3.96E-13	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-18	0.00E+00	3.99E-16
SFP [kg O₃ eq]	3.74E-02	7.32E-03	2.66E-02	0.00E+00	3.19E-01	0.00E+00	3.60E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-05	0.00E+00	7.73E-04
ADPf [MJ]	2.56E+00	1.29E-01	5.79E-02	0.00E+00	3.51E+01	0.00E+00	1.38E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.46E-04	0.00E+00	1.64E-02
					Carb	on Emissions	and Uptake							
BCRP [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCRK [kg CO <sub>2</sub> ]	1.01E-01	0.00E+00	2.03E-03	0.00E+00	0.00E+00	0.00E+00	5.17E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEK [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00	0.00E+00	5.17E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEW [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCE [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCR [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNR [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



# The LCI results presented below are for 1 m2 of Armorseal 8100 Satin B70T08164 B70V08100, 10-year Commercial Market Service Life RSL

Table 22: Resource use, waste, and output flow results for Armorseal 8100 Satin B70T08164 B70V08100, per functional unit 10-year RSL

		Table 22: I	Resource use,	waste, and ou	itput flow resul	ts for Armorse	al 8100 Satin	B/0108164_E	<u>870V08100</u> , pe	er tunctional un	nit 10-year RSI			
Impact Category	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
						Resource	Use Indicators	5						
RPR <sub>E</sub> [MJ]	1.73E+00	4.01E-02	4.19E-02	0.00E+00	2.54E+01	0.00E+00	9.16E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.01E-04	0.00E+00	1.57E-02
RPR <sub>M</sub> [MJ]	8.75E-01	0.00E+00	1.75E-02	0.00E+00	0.00E+00	0.00E+00	4.46E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRPR <sub>E</sub> [MJ]	1.75E+01	9.06E-01	4.09E-01	0.00E+00	2.67E+02	0.00E+00	9.48E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.54E-03	0.00E+00	1.26E-01
NRPR <sub>M</sub> [MJ]	2.30E+00	0.00E+00	4.60E-02	0.00E+00	0.00E+00	0.00E+00	1.17E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SM [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW [m <sup>3</sup> ]	4.54E-03	1.33E-04	1.29E-04	0.00E+00	9.39E-01	0.00E+00	2.41E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.67E-07	0.00E+00	1.63E-05
					Oi	utput Flows an	d Waste Cate	gories						
HWD [kg]	4.25E-02	0.00E+00	8.50E-04	0.00E+00	0.00E+00	0.00E+00	2.17E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD [kg]	4.43E-03	0.00E+00	9.76E-02	0.00E+00	0.00E+00	0.00E+00	2.44E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.86E-01
HLRW [kg]	3.73E-07	3.24E-09	9.60E-09	0.00E+00	5.35E-06	0.00E+00	1.94E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E-11	0.00E+00	1.50E-09
ILLRW [kg]	3.13E-04	2.73E-06	8.05E-06	0.00E+00	4.41E-03	0.00E+00	1.62E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.37E-08	0.00E+00	1.34E-06
CRU [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR [kg]	0.00E+00	0.00E+00	3.80E-02	0.00E+00	0.00E+00	0.00E+00	1.90E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE [MJ]	7.59E-02	0.00E+00	3.44E-02	0.00E+00	0.00E+00	0.00E+00	5.52E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET [MJ]	1.39E-02	0.00E+00	1.34E-02	0.00E+00	0.00E+00	0.00E+00	1.37E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



Armorseal 8100 Satin Lowest Impact Product (B70T08164\_B70V08100) Commercial Technical Service Life Scenario – 15-yr RSL

The LCIA results presented below are for 1 m2 of Armorseral 8100 Satin B70T08164\_B70V08100, 15-year Commercial Technical Service Life RSL

Table 23: LCIA results for Armorseal 8100 Satin B70T08164 B70V08100, per functional unit 15-year RSL

rabie 23: LCIA results for Armorseal 8100 Satin <u>B70108104_B70V08100</u> , per functional unit 13-year RSL														
Impact Category	A1-A3	A4	A5	B1	B2	В3	В4	В5	В6	В7	C1	C2	С3	C4
	IPCC AR6 Global Warming Potential													
GWPe [kg CO <sub>2</sub> eq]	9.33E-01	6.85E-02	5.38E-02	0.00E+00	1.19E+01	0.00E+00	3.19E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.42E-04	0.00E+00	8.33E-03
GWPi [kg CO <sub>2</sub> eq]	8.37E-01	6.85E-02	6.50E-02	0.00E+00	1.13E+01	0.00E+00	2.94E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.42E-04	0.00E+00	8.29E-03
TRACI LCIA Impacts (North America) and CML ADPf														
AP [kg SO <sub>2</sub> eq]	1.71E-03	3.18E-04	1.24E-04	0.00E+00	1.97E-02	0.00E+00	6.59E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.75E-07	0.00E+00	4.32E-05
EP [kg N eq]	2.10E-04	2.83E-05	1.48E-05	0.00E+00	4.36E-03	0.00E+00	7.65E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E-07	0.00E+00	1.86E-06
ODP [kg CFC 11 eq]	7.68E-14	2.02E-16	1.71E-15	0.00E+00	3.56E-10	0.00E+00	2.37E-13	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-18	0.00E+00	3.99E-16
SFP [kg O <sub>3</sub> eq]	3.74E-02	7.32E-03	2.66E-02	0.00E+00	3.19E-01	0.00E+00	2.16E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-05	0.00E+00	7.73E-04
ADPf [MJ]	2.56E+00	1.29E-01	5.79E-02	0.00E+00	3.51E+01	0.00E+00	8.28E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.46E-04	0.00E+00	1.64E-02
					Carb	on Emissions	and Uptake							
BCRP [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCRK [kg CO <sub>2</sub> ]	1.01E-01	0.00E+00	2.03E-03	0.00E+00	0.00E+00	0.00E+00	3.10E-01	0.00E+00						
BCEK [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00	0.00E+00	3.10E-01	0.00E+00						
BCEW [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCE [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCR [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNR [kg CO <sub>2</sub> ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



# The LCI results presented below are for 1 m2 of Armorseal 8100 Satin B70T08164 B70V08100, 15-year Commercial Technical Service Life RSL

Table 24: Resource use, waste, and output flow results for Armorseal 8100 Satin B70T08164 B70V08100, per functional unit 15-year RSL

Table 24: Resource use, waste, and output flow results for Armorseal 8100 Satin <b>B70108164_B70V08100</b> , per functional unit 15-year RSL														
Impact Category	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
	Resource Use Indicators													
RPR <sub>E</sub> [MJ]	1.73E+00	4.01E-02	4.19E-02	0.00E+00	2.54E+01	0.00E+00	5.50E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.01E-04	0.00E+00	1.57E-02
RPR <sub>M</sub> [MJ]	8.75E-01	0.00E+00	1.75E-02	0.00E+00	0.00E+00	0.00E+00	2.68E+00	0.00E+00						
NRPR <sub>E</sub> [MJ]	1.75E+01	9.06E-01	4.09E-01	0.00E+00	2.67E+02	0.00E+00	5.69E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.54E-03	0.00E+00	1.26E-01
NRPR <sub>M</sub> [MJ]	2.30E+00	0.00E+00	4.60E-02	0.00E+00	0.00E+00	0.00E+00	7.03E+00	0.00E+00						
SM [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW [m <sup>3</sup> ]	4.54E-03	1.33E-04	1.29E-04	0.00E+00	9.39E-01	0.00E+00	1.45E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.67E-07	0.00E+00	1.63E-05
Output Flows and Waste Categories														
HWD [kg]	4.25E-02	0.00E+00	8.50E-04	0.00E+00	0.00E+00	0.00E+00	1.30E-01	0.00E+00						
NHWD [kg]	4.43E-03	0.00E+00	9.76E-02	0.00E+00	0.00E+00	0.00E+00	1.46E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.86E-01
HLRW [kg]	3.73E-07	3.24E-09	9.60E-09	0.00E+00	5.35E-06	0.00E+00	1.16E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E-11	0.00E+00	1.50E-09
ILLRW [kg]	3.13E-04	2.73E-06	8.05E-06	0.00E+00	4.41E-03	0.00E+00	9.74E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.37E-08	0.00E+00	1.34E-06
CRU [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR [kg]	0.00E+00	0.00E+00	3.80E-02	0.00E+00	0.00E+00	0.00E+00	1.14E-01	0.00E+00						
MER [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE [MJ]	7.59E-02	0.00E+00	3.44E-02	0.00E+00	0.00E+00	0.00E+00	3.31E-01	0.00E+00						
EET [MJ]	1.39E-02	0.00E+00	1.34E-02	0.00E+00	0.00E+00	0.00E+00	8.20E-02	0.00E+00						



In addition to the full results presented for the highest and lowest impact product configurations presented above, IPCC AR6 GWPe values are presented herein for all other product configurations covered by this EPD.

Armorseal 8100 Satin Non-Reference Product IPCC AR6 GWPe Results- Industrial Service Life Scenario - 5-yr RSL

Product	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4
B70W08163_B70V08100	1.09E+00	7.16E-02	5.70E-02	0.00E+00	1.19E+01	0.00E+00	1.35E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.61E-04	0.00E+00	8.79E-03
B70A08160_B70V08100	1.10E+00	7.38E-02	5.73E-02	0.00E+00	1.19E+01	0.00E+00	1.36E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.74E-04	0.00E+00	9.12E-03
B70A08161_B70V08100	1.02E+00	7.30E-02	5.57E-02	0.00E+00	1.19E+01	0.00E+00	1.27E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-04	0.00E+00	9.01E-03

Armorseal 8100 Satin Non-Reference Product IPCC AR6 GWPe Results- Commercial Market Service Life Scenario – 10-yr RSL

Product	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4
B70W08163_B70V08100	1.09E+00	7.16E-02	5.70E-02	0.00E+00	1.19E+01	0.00E+00	6.13E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.61E-04	0.00E+00	8.79E-03
B70A08160_B70V08100	1.10E+00	7.38E-02	5.73E-02	0.00E+00	1.19E+01	0.00E+00	6.20E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.74E-04	0.00E+00	9.12E-03
B70A08161_B70V08100	1.02E+00	7.30E-02	5.57E-02	0.00E+00	1.19E+01	0.00E+00	5.79E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-04	0.00E+00	9.01E-03

Armorseal 8100 Satin Non-Reference Product IPCC AR6 GWPe Results- Commercial Technical Service Life Scenario – 15-yr RSL

Product	A1-A3	A4	A5	B1	B2	В3	B4	B5	B6	В7	C1	C2	C3	C4
B70W08163_B70V08100	1.09E+00	7.16E-02	5.70E-02	0.00E+00	1.19E+01	0.00E+00	3.68E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.61E-04	0.00E+00	8.79E-03
B70A08160_B70V08100	1.10E+00	7.38E-02	5.73E-02	0.00E+00	1.19E+01	0.00E+00	3.72E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.74E-04	0.00E+00	9.12E-03
B70A08161_B70V08100	1.02E+00	7.30E-02	5.57E-02	0.00E+00	1.19E+01	0.00E+00	3.47E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-04	0.00E+00	9.01E-03



# Interpretation

For both the highest and lowest impact products, the majority of environmental impact comes from modules B2 and B4 representing the maintenance and replacements over the building's ESL. Depending on the indicator, modules B2 and B4 contribute more or less to overall impacts (e.g., for Smog Air B4 contributes relatively more whereas for EP B2 contributes relatively more. The majority of A1-A3 impact across all indicators comes from the A1 module. A1 GWPe for this product is driven by epoxy resins and pigments, material groups that cumulatively make up the majority of the mass of these products. Note that Figure 2 and Figure 3 show results for the highest impact product configuration only. The same trends illustrated here also hold true for the lowest impact product; however, graphs for the lowest impact product were excluded for the sake of brevity.

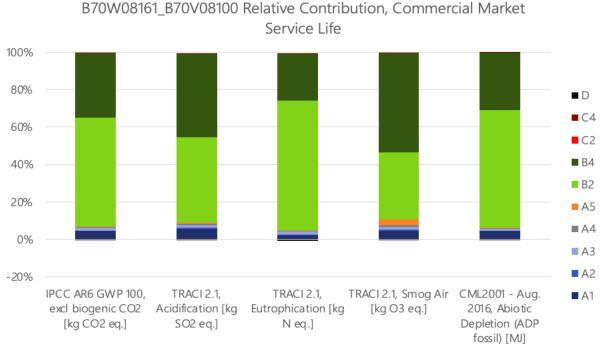


Figure 2: Contribution analysis for highest impact Armorseal 8100 Satin product, Commercial Market Service Life

Figure 3 shows the GWPe results across RSL scenarios for the highest impact Armorseal 8100 Satin product. Each RSL scenario denotes a different number of product replacements to achieve the functional unit. Given the significance of the B4 module to overall results, changes to this module have tangible impacts on overall LCA results. As illustrated in this figure, increasing the RSL of the products under study decreases B4 impacts.

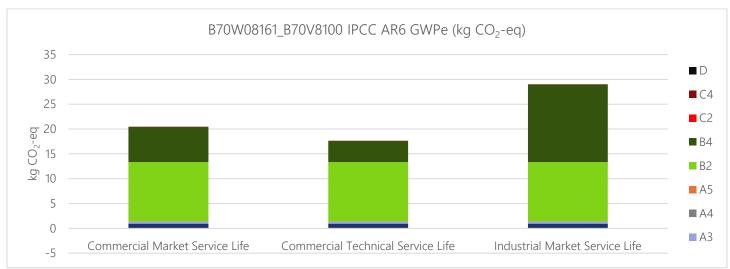


Figure 3: B70W08161\_B70V08100 IPCC AR6 GWPe Impacts for all RSL Scenarios



#### Additional Environmental Information

<b>Emissions Testing Standard</b>	
CDPH v1.2	Standard method for the testing and evaluation of volatile organic emission from indoor sources using environmental chambers.

Component	Component Type	VOC Content			
B70W08161		<50g/l			
B70W08163		<50g/l			
B70T08164	Part A	<50g/l	Determined by EPA		
B70A08160		<50g/l	VOC Regulatory Calculation		
B70A08161		<50g/l			
B70V08100	Part B	<50g/l			

### References

- 1. CML Department of Industrial Ecoloby. (2016, September 5). *CML-IA Characterization factors*. Retrieved from https://www.universiteitleiden.nl/en/research/research-output/science/cml-ia-characterisation-factors
- LCA Report of Sherwin Williams Resinous Flooring Products, WAP Sustainability, June 2025
- 3. IPCC. (2021). Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press. In Press.
- 4. ISO. (2006). ISO 14025: Environmental labels and declarations Type III environmental declarations Principles and procedures. Geneva: International Organization for Standardization.
- 5. ISO. (2006). ISO 14040/Amd 1:2020: Environmental management Life cycle assessment Principles and framework. Geneva: International Organization for Standardization.
- 6. ISO. (2006). ISO 14044/Amd 1:2017/Amd 2:2020: Environmental Management Life cycle assessment Requirements and Guidelines. Geneva: International Organization for Standardization.
- 7. ISO. (2017). ISO 21930: Sustainability in buildings and civil engineering works Core rules for environmental product declarations of construction products and services. Geneva: International Organization for Standardization.
- 8. NSF International. (2018). PCR for Resinous Floor Coatings.
- 9. US EPA. (2012). TRACI: The Tool for the Reduction and Assessment of Chemical and Other Environmental Impacts. Version 2.1 User Guide. Retrieved from https://nepis.epa.gov/Adobe/PDF/P100HN53.pdf

