Environmental Product Declaration

SilPruf™ Joint Sealants

SCS2000 and SCS2700LM Weathersealants

SCS Joint Sealants are primerless and silicone, designed for weathersealing and to handle significant joint movement.

MOMENTIVE®
SOLUTIONS FOR A SUSTAINABLE WORLD™

Momentive is committed to creating value by collaborating with our customers to deliver innovative solutions and by caring for our people, our customers, our communities, and our planet.

In line with expectations of our stakeholders and consistent with our Core Values and Safety and Sustainability Policy, Momentive strives to implement business practices that improve not only financial results, but environmental, social and corporate governance performance.

At Momentive, we believe it's our responsibility to develop pioneering high-performance silicones, specialty products, solutions, and technologies focused on enabling Solutions for a Sustainable World™ and improving the quality of life for all.

With more than 80 years of research and development experience, we approach every opportunity with a keen sense of possibility and tireless dedication to discovery.

We serve more than 25 widely diversified industries, including construction – where we provide an extensive portfolio of GE branded sealants and coatings.□

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UL CERTIFIED
ENVIRONMENTAL PRODUCT DECLARATION
UL.COM/EPD

This declaration is an environmental product declaration (EPD) in accordance with ISO 14025, ISO 14040, and ISO 21930. EPDs rely on Life Cycle Assessment (LCA) to provide information on a number of environmental impacts of products over their life cycle. Exclusions: EPDs do not indicate that any environmental or social performance benchmarks are met, and there may be impacts that they do not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. EPDs can complement but cannot replace tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc. Accuracy of Results: EPDs regularly rely on estimations of impacts, and the level of accuracy in estimation of effect differs for any particular product line and reported impact. Comparability: EPDs are not comparative assertions and are either not comparable or have limited comparability when they cover different life cycle stages, are based on different product category rules or are missing relevant environmental impacts. EPDs from different programs may not be comparable.

EPD PROGRAM AND PROGRAM OPERATOR NAME, ADDRESS, LOGO, AND WEBSITE	UL Environment 333 Pfingsten Rd, Northbrook, IL 60062 www.ul.com www.spot.ul.com
GENERAL PROGRAM INSTRUCTIONS AND VERSION NUMBER	Program Operator Rules v 2.7 2022
MANUFACTURER NAME AND ADDRESS	Momentive Performance Materials 2750 Balltown Road, Niskayuna, NY 12309
DECLARATION NUMBER	4790640255.102.1
DECLARED PRODUCT & DECLARED UNIT	SCS Joint Sealants Declared Unit = 1 kg
REFERENCE PCR AND VERSION NUMBER	UL Environment's Part A PCR: Life Cycle Assessment Calculation Rules and Report Requirements v4.0 UL Environment's Part B PCR: Building and Construction Sealant EPD Requirements v1.0
DESCRIPTION OF PRODUCT APPLICATION/USE	Momentive products are primarily used in commercial settings.
PRODUCT RSL DESCRIPTION	N/A
MARKETS OF APPLICABILITY	Global
DATE OF ISSUE	March 1, 2023
PERIOD OF VALIDITY	5 Years
EPD TYPE	Product Specific
RANGE OF DATASET VARIABILITY	N/A
EPD SCOPE	Cradle-to-Gate
YEAR(S) OF REPORTED PRIMARY DATA	August 2021 - May 2022
LCA SOFTWARE & VERSION NUMBER	SimaPro 9.2.0.2
LCI DATABASE(S) & VERSION NUMBER	Ecoinvent v3.5 & USLCI v2.0
LCIA METHODOLOGY & VERSION NUMBER	TRACI 2.1; CML 4.1
The sub-category PCR review was conducted by:	UL Environment - PCR Review Panel - epd@ul.com
This declaration was independently verified in accordance with ISO 14025: 2006. ISO 21930 serves as the core PCR for LCA rules and calculations. ☐ INTERNAL ☒ EXTERNAL	Cooper McCollum, UL Environment
This life cycle assessment was conducted in accordance with ISO 14044 and the reference PCR by:	Sustainable Solutions Corporation
This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:	James Mellentine, Thrive ESG

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General Information

Description of Company/Organization

Momentive Performance Materials (Momentive) is a premier global advanced materials company with a cutting-edge focus on silicones and specialty products. Headquartered in Niskayuna, New York, USA, Momentive has a network of more than 40 locations in 20-plus countries around the world. Our locations span from urban to suburban to rural, and we have strong relationships with the diverse local communities in each area. This global breadth positions us to serve our diverse customer base of more than 4,000 customers in 100-plus countries. We deliver solutions designed to drive performance across a wide range of industries, including agriculture, automotive, aerospace, electronics, personal care, consumer products, building, and construction. For the construction industry, we provide an extensive portfolio of GE (General Electric) branded sealants and coatings for use across the building envelope. In 2006, Momentive purchased GE Advanced Materials, becoming the exclusive global licensee of GE branded silicone sealants and coatings. Under Momentive, we continue to build on GE's legacy - turning the latest innovations in silicone technology into advanced solutions that perform in the real world. Today, we offer a complete line of building envelope silicone solutions for roof coating, air and water barriers, architectural coatings, weather sealing, structural glazing, insulating glass, and structural glazing. From the smallest buildings to iconic structures like the Empire State Building - our solutions are an integral part of successful construction and restoration projects of all shapes and sizes across the globe. GE is a registered trademark of General Electric Company and is used under license by Momentive Performance Materials Inc.

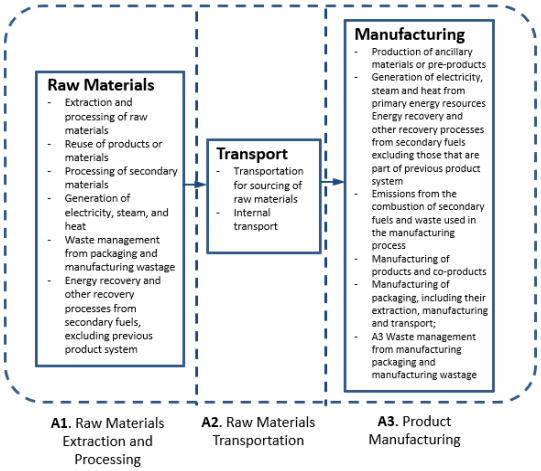
Production Description

Product Name: SCS2000 and SCS2700 Sealants
Product Characteristics: SCS sealants create an airtight and watertight barrier to protect window perimeters. With excellent extension and compression abilities, it is designed to handle significant joint movement.

Additional features include:

- One-part system
- Neutral-core silicone
- ±50% movement capacity

Flow Diagram



Manufacturer Specific EPD

This product-specific EPD was developed based on the cradle-to-gate (modules A1-A3) Life Cycle Assessment. The EPD accounts for raw material extraction and processing, raw material transport, and product manufacturing. Manufacturing data were gathered directly from company personnel. For this document, SCS2000 and SCS2700 are represented in the "LCA Results" section separately.

Application

The Momentive SCS series joint sealants securely bond without a primer to most substrates and finishes including EIFS, glass, polycarbonate, vinyl, plastics, coated and anodized aluminum, concrete, brick, wood, terracotta, natural stone, and more.

Material Composition

The composition of the SilPruf™ Joint Sealants is as follows (mass %):

Component	SCS2000	SCS2700
Filler	2.6%	47.0%
Treated Filler	47.5%	4.6%
Polymer	49.9%	48.5%
Total	**100.0%**	**100.0%**

Technical Data

For the declared product, the following technical data in the delivery status must be provided with reference to the test standard:

Category	SCS2000	SCS2700	Unit
Density (kg/m^3)	1500	1420	kg/m^3
Vertical Stability	<2.5	<2.5	mm
Hardness, Durometer (Type A Indentor) (ASTM D2240)	24	15	-
Ultimate Tensile Strength (ASTM D412)	341	246	psi
Ultimate Elongation (ASTM D412)	715%	781%	(%)
Tensile at 50% Elongation (ASTM C1184/C1135)	47.0	8.0	psi
Tensile at 100% Elongation (ASTM C1184/C1135)	73.2	11.8	psi
Tear Strength (ASTM D624)	76.8	33.3	ppi
Shear Strength (at 1/4" Thickness) (ASTM C961)	121.4	N/A	psi
Peel Strength (Average) (21-day cure @ 75°F (21°C) 50% RH) (ASTM C794)	56.6	37.2	pli
Joint Move Capability (ASTM C719)	±50	N/A	pli
Service Temperature Range (After Cure)	- 48°C - 121°C	- 48°C - 121°C	pli
Weathering and U.V. Resistance	Excellent		-
Cure Time	3 - 4		days
Full Cure	10 - 14		days
Sealant Category (Rule 1168 Category)	Roof Coatings		-
VOC Content	20	27	g/L
VOC Category Limit (Rule 1168 Category)	50		g/L

Market Placement / Application Rules

Momentive SCS000 and SCS2700 joint sealants are produced in accordance with WPSTM C1454; ASTM C679; ASTM D2202; ASTM D2240; ASTM D412; ASTM C1184; ASTM C1135; ASTM D624; ASTM C961; ASTM C794; ASTM C719; ASTM C1193; ASTM C920

Methodological Framework

Declared Unit

The declaration refers to the declared unit of 1 kg of SilPruf™ Joint Sealants.

Parameter	SCS2000	SCS2700	Unit
Declared Unit	1.00	1.00	kg
Density	1.41	1.42	kg/liter
Conversion to 1 kg	1.00	1.00	-
Yield in Joint of Dimensions 12mm x	9.620	9.620	m/kg
Mixing Ratio	N/A	N/A	-

System Boundary

This is a cradle-to-gate Environmental Product Declaration. The following life cycle phases were considered:

Product Stage			Construction Process Stage		Use Stage							End-of-Life Stage*				Benefits and Loads Beyond the System Boundaries
Raw Material Supply	Transport	Manufacturing	Transport from Gate to the Site	Construction/Installation Process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational Energy Use	Operational Water Use	Deconstruction/Demolition	Transport	Waste Processing	Disposal	Reuse-Recovery-Recycling Potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

Description of the System Boundary Stages Corresponding to the PCR

(X = Included; MND = Module Not Declared)

*This includes provision of all materials, products and energy, packaging processing and its transport, as well as waste processing up to the end-of-life waste state or disposal of final residues.

Reference Service Life and Building Estimated Service Life

The Reference Service Life is determined by the guidance from the Product Category Rules and varies by product type and use phase scenario. Since the use phase is not included in this study, no Reference Service Life is declared.

Allocation

The LCI data was collected from the Waterford, NY manufacturing facility from August 2021 to May 2022. The manufacturing for all products made at this facility have similar energy, waste, and water input requirements. There were other products in production at this facility during this period, and they were all treated to the same manufacturing requirements as well. Allocation was done on a mass basis.

Cut-off Criteria

Processes whose total contribution to the final result, with respect to their mass and in relation to all considered impact categories, is less than 1% can be neglected. The sum of the neglected processes may not exceed 5% by mass of the considered impact categories. For that a documented assumption is admissible.

For Hazardous Substances - as defined by the U.S. Occupational Health and Safety Act the following requirements apply:

- The Life Cycle Inventory (LCI) of hazardous substances will be included, if the inventory is available.
- If the LCI for a hazardous substance is not available, the substance will appear as an input in the LCI of the product, if its mass represents more than 0.1% of the product composition.
- If the LCI of a hazardous substance is approximated by modeling another substance, documentation will be provided.

This EPD is in compliance with the cut-off criteria. No processes were neglected or excluded. Capital items for the production processes (machine, buildings, etc.) were not taken into consideration.

Data Sources/Background Data

For life cycle modeling, the SimaPro v9.2.0.2 Software, a recognized LCA modeling software program, was used. All background data sets relevant for production and disposal were taken from this software. Datasets include those from Ecoinvent v3.5 and the US LCI database.

Data Quality

For the data used in this LCA, the data quality is considered to be good to high quality. The data and data sets cover all relevant process steps and technologies over the supply chain of the represented fiber products. The majority of secondary data sets are from the Ecoinvent v3.5 database and the US LCI database. The study adopts critically reviewed data wherever possible for consistency, precision, and reducibility to limit uncertainty. The data used are complete and representative of North America in terms of the geographic and technological coverage and is of a recent vintage, i.e., less than ten years old.

Period Under Review

The data used for the Life Cycle Assement refer to the production processes from August 2021 to May 2022. The quantities of raw materials, energies, auxilary materials, and supplies used have been ascertained as average monthly values.

Comparability

A comparison or an evaluation of EPD data is only possible if all data sets to be compared were created according to ISO 21930 and the building context, respectively the product-specific characteristics of performance, are taken into account. Environmental product declarations from different programs may not be comparable. Full conformance with the PCR for joint sealant products allows EPD comparability only when all stages of a product's life cycle have been considered. However, variations and deviations are possible.

Estimates and Assumptions

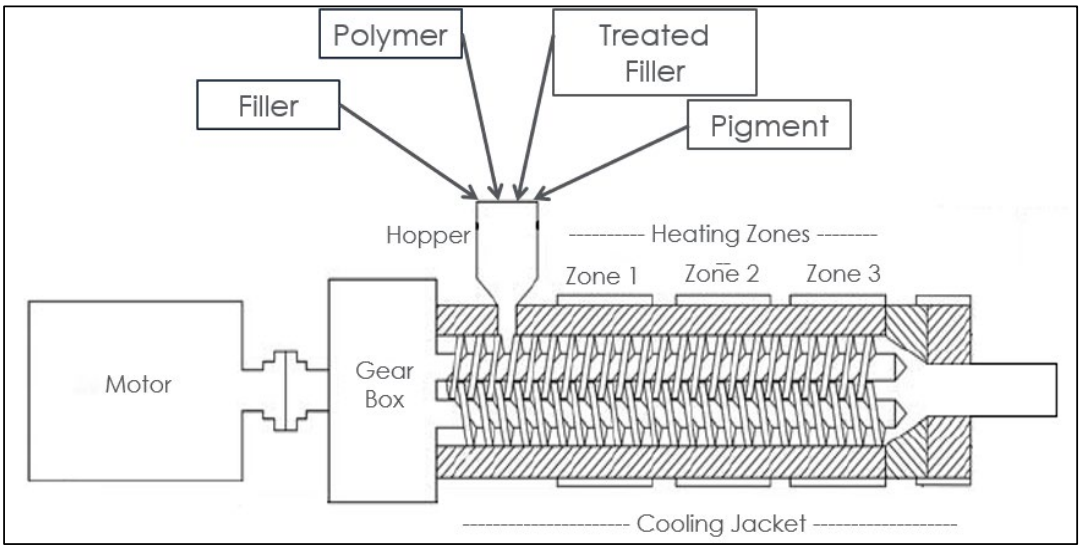
A significant majority of sales of the joint sealant products in this LCA occur within the United States.
At the end-of-life, joint sealant products are cured and often adhered to the building materials they are sealing. The state of the product at end-of-life is not conducive to an opportunity to recycle the materials; and therefore, joint sealants are most typically disposed of in mixed construction debris receptacles, commonly ending up in a landfill. Biogenic carbon is not relevant for these products.

Technical Information and Scenarios

Manufacturing

All raw materials are loaded into barrels along a screw extruder. Materials are then added into the extruder while properties of the mixture are monitored. An electric heater keeps the extruder at the desired temperature, then an electric external glycol chiller cools the material before leaving the extruder. Packaging is entirely automated, and the products can be packaged in either pails, drums, or "sausage" packs.

Manufacturing Location: Waterford, NY



Packaging

These products are packaged with plastic and steel.

Component	SCS2000	SCS2700
HDPE	2.84%	2.72%
LDPE	39.84%	39.81%
LLDPE	28.66%	28.74%
Steel	28.66%	28.74%
Total	**100.00%**	**100.00%**

LCA Results - SCS2000

Results shown below were calculated using TRACI 2.1 Methodology.

TRACI 2.1 Impact Assessment

Parameter	Parameter	Unit	A1	A2	A3	Total
GWP	Global Warming Potential	kg CO_2-Eq.	8.08E+00	2.42E-03	7.08E+00	1.52E+01
ODP	Depletion Potential of the Stratospheric Ozone Layer	kg CFC-11 Eq.	7.57E-03	9.22E-14	2.74E-07	7.57E-03
AP Air	Acidification Potential for Air Emissions	kg SO_2-Eq.	4.30E-02	1.44E-05	4.21E-02	8.51E-02
EP	Eutrophication Potential	kg N-Eq.	1.72E-02	8.04E-07	6.96E-03	2.41E-02
SP	Smog Formation Potential	kg O_3-Eq.	5.87E-01	3.95E-04	1.78E-01	7.65E-01
FFD	Fossil Fuel Depletion	MJ-surplus	9.42E+00	4.63E-03	1.34E+01	2.28E+01

Results shown below were calculated using CML methodology.

CML 4.1 Impact Assessment

Parameter	Parameter	Unit	A1	A2	A3	Total
GWP	Global Warming Potential	kg CO_2-Eq.	8.13E+00	2.42E-03	7.15E+00	1.53E+01
ODP	Depletion Potential of the Stratospheric Ozone Layer	kg CFC-11 Eq.	7.65E-04	9.13E-14	2.36E-07	7.66E-04
AP Air	Acidification Potential for Air Emissions	kg SO_2-Eq.	4.20E-02	1.19E-05	4.81E-02	9.01E-02
EP	Eutrophication Potential	kg$(PO_4)_3$-Eq.	9.86E-03	2.11E-06	3.37E-03	1.32E-02
POCP	Formation Potential of Tropospheric Ozone Photochemical Oxidants	kg ethane-Eq.	2.40E-03	5.49E-07	3.37E-03	5.77E-03
ADPE	Abiotic Depletion Potential for Non-Fossil Resources	kg Sb-Eq.	7.06E-05	0.00E+00	9.11E-06	7.97E-05
ADPF	Abiotic Depletion Potential for Fossil Resources	MJ	8.84E+01	3.11E-02	8.44E+01	1.73E+02

Results below contain the resource use throughout the life cycle of the product.

Resource Use

Parameter	Parameter	Unit	A1	A2	A3	Total
RPRE	Renewable primary energy as energy carrier	MJ, lower calorific value	6.71E+00	0.00E+00	6.93E+00	1.36E+01
RPRM	Renewable primary energy resources as material utilization	MJ, lower calorific value	5.31E+00	0.00E+00	1.69E-01	5.48E+00
NRPRE	Nonrenewable primary energy as energy carrier	MJ, lower calorific value	1.08E+02	3.30E-02	9.37E+01	2.01E+02
NRPRM	Nonrenewable primary energy as material utilization	MJ, lower calorific value	8.86E+00	0.00E+00	2.22E-01	9.08E+00
SM	Use of secondary material	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	Use of nonrenewable secondary fuels	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE	Energy Recovered From Disposal of Waste	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Use of net fresh water	m^3	1.50E-01	0.00E+00	6.00E-02	2.10E-01

Results below contain the output flows and wastes throughout the life cycle of the product.

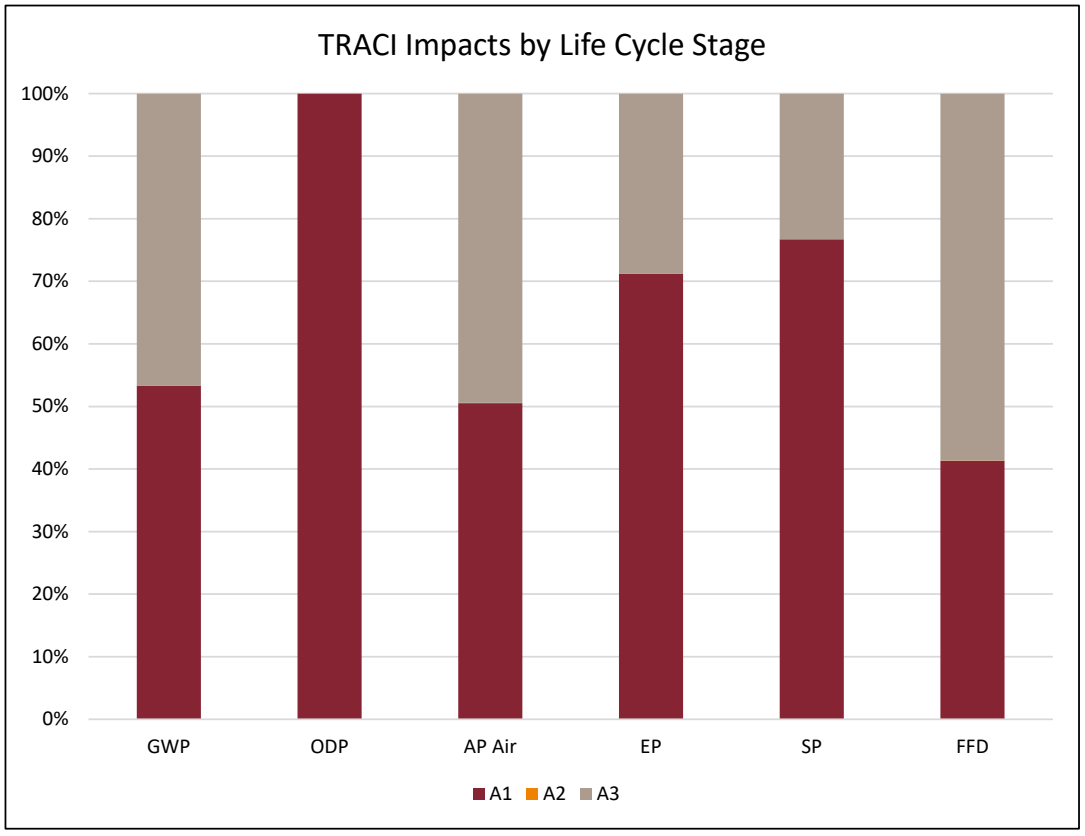
Output Flows and Waste Categories						
Parameter	**Parameter**	**Unit**	**A1**	**A2**	**A3**	**Total**
HWD	Hazardous Waste Disposed	kg	5.81E-05	0.00E+00	4.85E-02	4.86E-02
NHWD	Non-Hazardous Waste Disposed	kg	5.78E+00	0.00E+00	7.85E-01	6.57E+00
RWD	Radioactive Waste Disposed	kg	2.10E-04	0.00E+00	7.33E-05	2.83E-04
CRU	Components for Re-Use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	Materials for Recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER	Materials for Energy Recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	Exported Energy, Electrical	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET	Exported Energy, Thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Results below contain the biogenic carbon emissions and removals throughout the life cycle of the product.

Biogenic Carbon Emissions and Removals						
Parameter	**Parameter**	**Unit**	**A1**	**A2**	**A3**	**Total**
BCRP	Biogenic Carbon Removal from Product	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP	Biogenic Carbon Emissions from Product	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCRK	Biogenic Carbon Removal from Packaging	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEK	Biogenic Carbon Emissions from Packaging	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEW	Biogenic Carbon Emissions from Combustion of Waste from Renewable Sources Used in Production Process	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCE	Calcination Carbon Emissions	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCR	Carbonation Carbon Removal	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNR	Carbon Emissions from Combustion of Waste from Non-renewable Sources Used in Production Process	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Interpretation

The raw material life cycle stage (A1) dominates the impacts in the global warming potential, ozone depletion, eutrophication, and smog formation impact categories. This is due to the upstream production of polymers used in the product. The manufacturing stage (A3) contributes significantly with the A1 stage in the global warming potential, acidification, and fossil fuel depletion impact categories. This is due to the natural gas and electricity use in the manufacturing of the product.



LCA Results - SCS2700

Results shown below were calculated using TRACI 2.1 Methodology.

TRACI 2.1 Impact Assessment						
Parameter	**Parameter**	**Unit**	**A1**	**A2**	**A3**	**Total**
GWP	Global Warming Potential	kg CO_2-Eq.	7.85E+00	3.01E-03	7.08E+00	1.49E+01
ODP	Depletion Potential of the Stratospheric Ozone Layer	kg CFC-11 Eq.	7.36E-03	1.15E-13	2.74E-07	7.36E-03
AP Air	Acidification Potential for Air Emissions	kg SO_2-Eq.	4.17E-02	1.80E-05	4.21E-02	8.38E-02
EP	Eutrophication potential	kg N-Eq.	1.67E-02	1.00E-06	6.96E-03	2.37E-02
SP	Smog Formation Potential	kg O_3-Eq.	5.68E-01	4.92E-04	1.78E-01	7.46E-01
FFD	Fossil Fuel Depletion	MJ-surplus	9.14E+00	5.76E-03	1.34E+01	2.25E+01

Results shown below were calculated using CML methodology.

CML 4.1 Impact Assessment						
Parameter	**Parameter**	**Unit**	**A1**	**A2**	**A3**	**Total**
GWP	Global Warming Potential	kg CO_2-Eq.	7.90E+00	3.02E-03	7.15E+00	1.50E+01
ODP	Depletion Potential of the Stratospheric Ozone Layer	kg CFC-11 Eq.	7.44E-04	1.14E-13	2.36E-07	7.44E-04
AP Air	Acidification Potential for Air Emissions	kg SO_2-Eq.	4.08E-02	1.48E-05	4.81E-02	8.89E-02
EP	Eutrophication Potential	kg$(PO_4)_3$-Eq.	9.57E-03	2.63E-06	3.37E-03	1.29E-02
POCP	Formation Potential of Tropospheric Ozone Photochemical Oxidants	kg ethane-Eq.	2.35E-03	6.83E-07	3.37E-03	5.72E-03
ADPE	Abiotic Depletion Potential for Non-Fossil Resources	kg Sb-Eq.	6.87E-05	0.00E+00	9.11E-06	7.78E-05
ADPF	Abiotic Depletion Potential for Fossil Resources	MJ	8.58E+01	3.87E-02	8.44E+01	1.70E+02

Results below contain the resource use throughout the life cycle of the product.

Resource Use						
Parameter	**Parameter**	**Unit**	**A1**	**A2**	**A3**	**Total**
RPRE	Renewable primary energy as energy carrier	MJ, lower calorific value	6.44E+00	0.00E+00	6.93E+00	1.34E+01
RPRM	Renewable primary energy resources as material utilization	MJ, lower calorific value	5.16E+00	0.00E+00	1.69E-01	5.33E+00
NRPRE	Nonrenewable primary energy as energy carrier	MJ, lower calorific value	1.05E+02	4.10E-02	9.37E+01	1.98E+02
NRPRM	Nonrenewable primary energy as material utilization	MJ, lower calorific value	8.61E+00	0.00E+00	2.21E-01	8.83E+00
SM	Use of secondary material	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	Use of nonrenewable secondary fuels	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE	Energy Recovered From Disposal of Waste	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Use of net fresh water	m^3	1.48E-01	0.00E+00	5.79E-02	2.06E-01

Results below contain the output flows and wastes throughout the life cycle of the product.

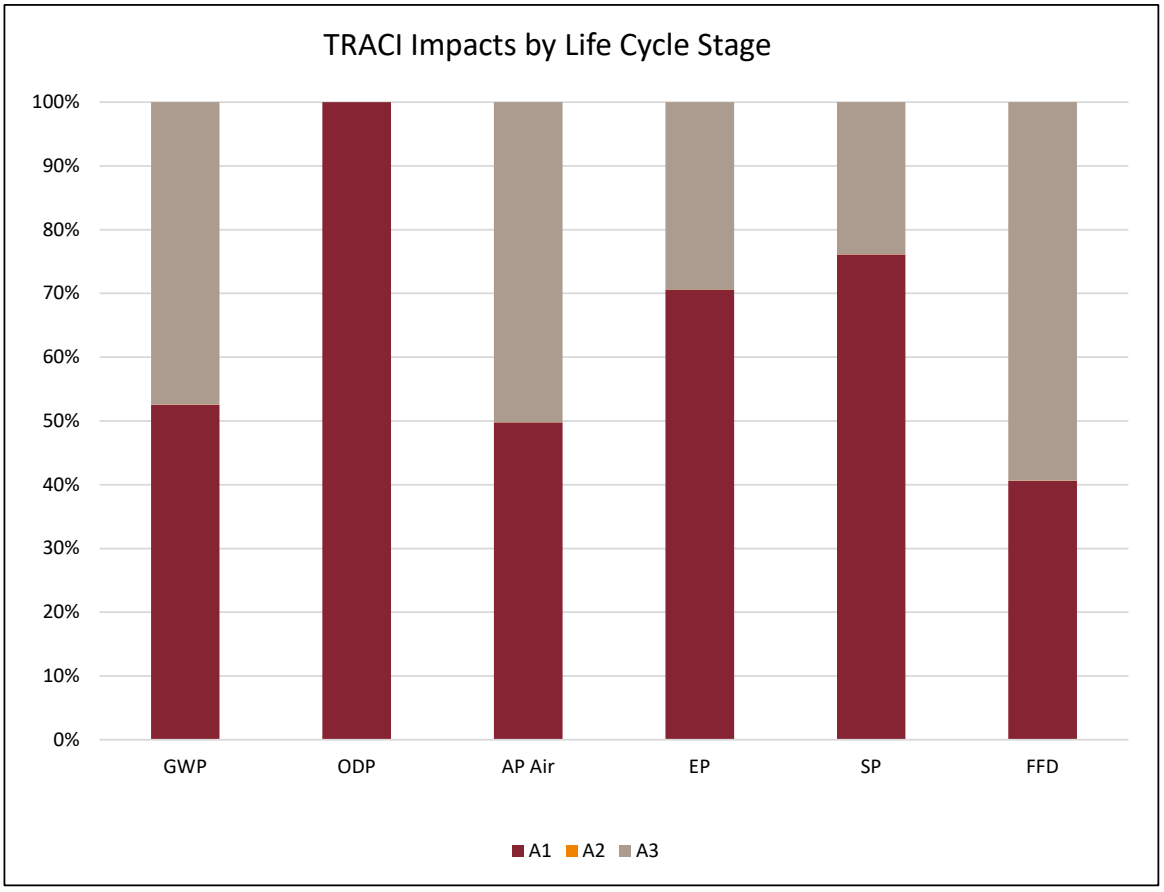
Output Flows and Waste Categories						
Parameter	**Parameter**	**Unit**	**A1**	**A2**	**A3**	**Total**
HWD	Hazardous Waste Disposed	kg	5.61E-05	0.00E+00	4.85E-02	4.86E-02
NHWD	Non-Hazardous Waste Disposed	kg	5.61E+00	0.00E+00	7.85E-01	6.39E+00
RWD	Radioactive Waste Disposed	kg	2.00E-04	0.00E+00	7.33E-05	2.73E-04
CRU	Components for Re-Use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	Materials for Recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER	Materials for Energy Recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	Exported Energy, Electrical	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET	Exported Energy, Thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Results below contain the biogenic carbon emissions and removals throughout the life cycle of the product.

Biogenic Carbon Emissions and Removals						
Parameter	**Parameter**	**Unit**	**A1**	**A2**	**A3**	**Total**
BCRP	Biogenic Carbon Removal from Product	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP	Biogenic Carbon Emissions from Product	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCRK	Biogenic Carbon Removal from Packaging	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEK	Biogenic Carbon Emissions from Packaging	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEW	Biogenic Carbon Emissions from Combustion of Waste from Renewable Sources Used in Production Process	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCE	Calcination Carbon Emissions	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCR	Carbonation Carbon Removal	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNR	Carbon Emissions from Combustion of Waste from Non-renewable Sources Used in Production Process	MJ, lower calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Interpretation

The raw material life cycle stage (A1) dominates the impacts in the global warming potential, ozone depletion, eutrophication, and smog formation impact categories. This is due to the upstream production of polymers used in the product. The manufacturing stage (A3) contributes significantly with the A1 stage in the global warming potential, acidification, and fossil fuel depletion impact categories. This is due to the natural gas and electricity use in the manufacturing of the product.



Additional Environmental Information

Environment and Health During Manufacturing

Momentive has well-established Environmental, Health and Safety (EHS) and product stewardship management standards, policies, practices, and procedures. Momentive has committed to implementing the EHS and product stewardship guiding principles established by the American Chemistry Council. Collectively, these standards, policies, practices, and procedures help Momentive to achieve its goals of complying with all applicable EHS requirements and protecting the health and safety of our employees, contractors, and communities.

Environmental and Health During Use

The product does not present a significant risk to human health during installation when stored, used, and disposed of in accordance with Momentive instructions, including the safety data sheet and technical data sheet, and also established industry safety and industrial hygiene practices.

Extraordinary Effects

Fire

Burning may generate emissions harmful to health and the environment. Avoid exposure to fire.

Water

None

Mechanical Destruction

None

Delayed Emissions

Global warming potential is calculated using the TRACI 2.1 and CML 4.1 impact assessment methodologies. Delayed emissions are not considered.

Environmental Activities and Certifications

Momentive has set sustainability goals to significantly reduce our environmental footprint by 2025 and has developed plans to meet these goals. In addition, we have trained 100% of technologists in Green Chemistry principles since 2020-2021. Momentive has maintained a Silver Sustainability Rating from Ecovadis for 2020 and 2021 and received a Gold Rating for the year 2022. The Ecovadis Sustainability Assessment provides an actionable scorecard and performance improvement tool for global supply chains. We continue to learn and improve as we work towards our goal of achieving an Ecovadis Platinum rating by 2025.

Further Information

Momentive Performance Materials
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References

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- ISO 14025 — ISO 14025:2011-10, Environmental labels and declarations — Type III environmental declarations — Principles and procedures.
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- CML 2001 — Center of Environmental Science of Leiden University impact categories and characterisation methods for impact assessment (CML).
- Life Cycle Assessment — Momentive Air Barriers and Joint Sealants Life Cycle Assessment, Sustainable Solutions Corporation, February 2023.
- SimaPro 9.2.0.2 — SimaPro Analyst, 9.2.0.2 Multi User, Copyright PRE Consultants 2016

Contact Information

Study Commissioner

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