Environmental Product Declaration
USG Durock™ Brand Primer-Sealer
Gypsum, OH

High-quality floor underlayment primer-sealer

- High-quality floor underlayment primer-sealer
- For priming porous and nonporous subfloors prior to application of poured underlayment
- Ideal for use on porous and nonporous concrete subfloors, wood, and gypsum underlayment
- Fast drying, single-coat application
- Ready to use (no dilution for nonporous surfaces)
- Enhances bond between substrate and underlayment
- Effective sealer of gypsum-based underlayment which promotes bond of most resilient floor-covering adhesives
- Mildew resistant; no adverse effect on floor-covering adhesives and no staining of finished floor coverings
- This product has been tested per CDPH -01350 Standard Method V1.2 and meets the requirements for classroom, office, and residence use.

1 Square Meter of Applied Coating at the Standard Application Rate for Nonporous Subfloors - 5-Gallon Pail	Cradle-to-Grave (A1-C4)
Global Warming Potential (kg CO_2 eq.)	**1.40E-01**
Ozone Depletion Potential (kg CFC 11 eq.)	**2.11E-15**
Acidification Potential (kg SO_2 eq.)	**3.69E-04**
Eutrophication Potential (kg N eq.)	**3.11E-05**
Photochemical Ozone Creation Potential (kg O_3 eq.)	**6.21E-03**
Abiotic Resource Depletion Potential Fossil Fuels (MJ, LHV)	**4.47E-01**

For over a century, sustainable practices have naturally been an inherent part of our business at USG and CGC. Today, they help shape the innovative products that become the homes where we live, the buildings where we work and the arenas where we play. From the product formulations we choose, to the processes we employ, USG and CGC are committed to designing, manufacturing, and distributing products that minimize overall environmental impacts and contribute toward a healthier living space. We believe that transparency of product information is essential for our stakeholders and Environmental Product Declarations (EPDs) are the next step toward an even more transparent USG and CGC. For additional information, visit usg.com, cgcinc.com and usg.ecomedes.com.

USG CGC
IT'S YOUR WORLD. BUILD IT.™

This declaration is an Environmental Product Declaration (EPD) in accordance with ISO 14025 and ISO 21930; 2017. 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: 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.

DECLARATION NUMBER	EPD 416
PROGRAM OPERATOR	ASTM International – 100 Barr Harbor Drive, West Conshohocken, PA USA www.astm.org
DECLARATION HOLDER	USG Corporation - 550 W. Adams St., Chicago, IL USA
DECLARED PRODUCT	USG Durock™ Brand Primer-Sealer
REFERENCE PCR	NSF: PCR for Resinous Floor Coatings; valid through December 17, 2023
PRODUCT CATEGORY	Resinous floor coating; subcategory thin-mil
DATE OF ISSUE PERIOD OF VALIDITY	2/6/23 5 Years
CONTENTS OF THE DECLARATION	This EPD is complete and contains the following: • Product System Documentation • Life Cycle Calculation Rules • Life Cycle Assessment Results • References

This declaration was independently verified in accordance with ISO 14025 and ISO 21930:2017 □ INTERNAL ☒ EXTERNAL	Tim Brooke, ASTM International
This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:	Thomas P. Gloria, Industrial Ecology Consultants

1. Product System Documentation

1.1 Product Description and Product Identification

USG Durock™ Brand Primer-Sealer is a fast-drying, high-solids, low VOC, acrylic primer used for priming substrates prior to the application of USG Durock™ Brand Self-Leveling Underlayments. Ready to use (no dilution for nonporous surfaces), USG Durock™ Primer-Sealer is a single-coat application product, suitable for applications over well bonded, sound, stable and clean existing floor coverings that are on concrete subfloors such as ceramic tile, vinyl composition tile (VCT), cement terrazzo and thin cutback adhesive. USG Durock™ Primer-Sealer can also be diluted with water to prime highly porous concrete, precast concrete, APA-Rated exterior glue plywood, oriented strand board (OSB) and USG Structural Panels. This product is available in 1-gallon jugs and 5-gallon pails from USG's Gypsum, OH facility. Note that coatings typically assessed using the PCR for resinous floor coatings include additional coating layers (i.e. basecoat and topcoat) beyond those manufactured by USG.

1.2 Designated Application

USG Durock™ Primer-Sealer may also be used as a sealer for USG Durock™ Multi-Use Self-Leveling Underlayments to enhance the bond between the underlayment and the floor-covering adhesive.

1.3 Product Technical Data

Table 1: Summary of the technical data

MVER (ASTM F1869): Up to 5 lbs./1,000 sq. ft./24 hrs. (2.3 kg/92.9 m2 /24 hours)
RH (ASTM F2170): Up to 80% RH
pH: 9.0
Solids Content (Undiluted): 58%
Calculated VOC Content (SCAQMD 1168): 1.5 g/L
Approximate Coverage:
Concrete/Nonporous Subfloors/ No dilution:
Apply at a rate of 400-450 sq. ft./gal. (9.8-11.0 m2 /L)
Highly Porous Subfloors/Shot-Blasted Concrete:
2 coats recommended.
First coat, partial dilution (1:4): Apply at a rate of 200 sq. ft./gal. (4.9 m^2/L)
Second coat, partial dilution (1:1) Apply at a rate of 300 sq. ft./gal. (7.4 m^2/L))
Wood Subfloors and USG Structural Panels Partial dilution (1:2):
Apply at a rate of 300-350 sq. ft./gal. (7.4-8.6 m^2 /L)
USG Durock™ Multi-Use Self-Leveling Underlayments Surface Sealing Full dilution (1:4):
Apply at a rate of 400-450 sq. ft./gal. (9.8-11.0 m^2 /L)
Approximate Dry Time: 2–3 hours
Packaging: 1 gal. (3.79 L) jug, 5 gal. (18.9 L) pail

1.4 Placing on the Market/Application Rules

USG Durock™ Brand Primer-Sealer must be installed in accordance with all applicable USG installation guidelines. Further detail may be found on the USG.com website.

1.5 Delivery Status

USG Durock™ Brand Primer-Sealer is available in 1-gallon jugs and 5-gallon pails.

1.6 Product Composition

Table 2: Product formula

Ingredient	USG DUROCK™ BRAND PRIMER-SEALER
Urea	< 5%
Alkylaryl polyether	< 2%
Ammonium hydroxide	< 1%
Zinc omadine	< 0.1%
5-Chloro-2-methyl-2H-isothiaazo 1-3-one	< 0.005%

1.7 Product Manufacture

USG Durock™ Brand Primer-Sealer is produced and packaged on a commercial coating line. The preparation of this product consists of blending the various liquid ingredients using a large volume high shear mixer. Packaging is conducted on a dedicated packaging line adjacent to each blending operation. Rigorous inspections insure that the finished product meets quality requirements. Any waste generated during product manufacturing is shipped to an approriate landfill using a distance of 32 km (20 miles) by truck. All raw materials utilized a shipping distance of 1207 km (750 miles).

1.8 Environment and Health During Manufacturing

USG and CGC have led the building sector's effort in developing and supplying sustainable construction materials. Today, sustainability is integrated into the design and manufacture of USG's wall, ceiling, and flooring products. As both a producer and a buyer of raw materials, we have a responsibility to extensively review and select each material we use. Each decision we make is based on careful consideration of environmental and safety effects over time. Raw materials used in our products are carefully selected and go through a screening procedure. Incoming raw materials are tested for contaminants by an internal lab and third-party labs for consideration of use and worker, environmental, and end-user exposure. This due diligence helps to ensure our products are safe to handle in our manufacturing plants and on job sites while having minimal impact on occupant health and indoor and outdoor environments.

1.9 Packaging

USG Durock™ Brand Primer-Sealer is available in 1-gallon jugs and 5-gallon pails. Both the production and disposal of these packaging materials was modeled in this study.

Table 3: A5 Product Packaging Waste per 1 Square Meter of Applied Coating

Module	Packaging	Scenario	Mass of Packaging Waste	GWP Biogenic Content
A5 Installation of the product	1-Gal. Jug	Nonporous floors	4.80E-03 kg	0.0 kg
	1-Gal. Jug	Highly porous floors	9.08E-03 kg	0.0 kg
	1-Gal. Jug	Wood and USG Structural Panels	6.28E-03 kg	0.0 kg
	1-Gal. Jug	Sealer for Durock™ Brand Multi-use Self-leveling underlayments	9.61E-04 kg	0.0 kg
	5-Gal. Pail	Nonporous floors	6.63E-03 kg	0.0 kg
	5-Gal. Pail	Highly porous floors	1.25E-02 kg	0.0 kg
	5-Gal. Pail	Wood and USG Structural Panels	8.67E-02 kg	0.0 kg
	5-Gal. Pail	Sealer for Durock™ Brand Multi-use Self-leveling underlayments	1.33E-03 kg	0.0 kg

1.10 Conditions of Use

USG Durock™ Brand Primer-Sealer must be installed in accordance with all applicable USG installation guidelines. Approved installation procedures are provided in the various submittal sheets specific to each product and must be followed. Installation of these products is accomplished by manual labor using mostly hand tools. No material or energy inputs are required on the jobsite.

1.11 Distribution

As noted in the PCR, the default distances for the transport of finished products from manufacturing to the distribution center is taken to be 402 km (250 miles) and from the distribution center to the point of sale is taken to be 804 km (500 miles) for a total of 1206 km (749) miles) by truck. Final transportation distance from the point of sale to the application site is taken to be 8 km (5 miles) by auto.

1.12 Product Installation

USG Durock™ Brand Primer-Sealer must be installed in accordance with all applicable USG installation guidelines. Approved installation procedures are provided in the various submittal sheets specific to each product. Installation of these products is accomplished by manual labor using mostly hand tools. No material or energy inputs are required on the jobsite. A 2% installation waste factor was utilized in this study as dictated in the PCR. The 1-gallon jugs and 5-gallon pails are assumed to go to landfill in this study.

Proper personal protective gear should be worn by the installer for protection.

1.13 Use Stage

USG Durock™ Brand Primer-Sealer is intended to promote adhesion of USG Durock ™ Brand Self-Leveling Underlayments to the subfloor and floor covering adhesives and to USG Durock ™ Brand Multi-Use Self-Leveling Underlayment when applied as a sealer. This product is not a wear coating and is always intended to be covered by a finished floor good. As such, this product becomes a permanent part of the floor structure and is not intended to be replaced during the life of the building. Accordingly, there are no use (B1), maintenance (B2), repair (B3), replacement (B4), refurbishment (B5) operation energy (B6), or water (B7) inputs during the life of this product.

1.14 Environment and Health During Use Stage

This product has been tested per CDPH 01350 Standard Method V1.2 and meets the requirements for classroom, office, and residence use. Total VOC concentration at 14 days is less than or equal to 0.,5 mg/m3. The detailed test report can be found at https://clearchem.berkeleyanalytical.com.

1.15 Re-Use Phase

At end of life, there are zero components for reuse, zero materials for recycling, zero materials for energy recovery and zero recovered energy from the product system.

1.16 End-of-Life Disposal

All waste generated at end-of-life is assumed to be disposed of in an appropriate landfill. The transport distance at end of life is assumed to be 32 km (20 miles).

> 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.

2. LCA Calculation Rules

2.1 Functional Unit

For this study, both the declared unit and functional unit are defined to be the quantity of coating required to cover 1 square meter of floor as presented in the submittal sheet for each product.

Table 4: Functional unit (1 square meter of applied coating)

	1st Application		2nd Application			Combined Applications	
Product	Recommended Dilution Rate (gal H2O/gal product)	Recommended Coverage (sf/gal of product)	Recommended Dilution Rate (gal H2O/gal product)	Recommended Coverage (sf/gal of product)	Product Weight (lbs./gal)	Application Rate (lbs. of undiluted product/sf)	Application Rate (lbs. of undiluted product/m2)
USG Durock Primer-Sealer (Nonporous Subfloors)	0	425	0	0	8.5	0.0200	0.2152
USG Durock Primer-Sealer (Highly Porous Concrete Subfloors)	4	1000	1	600	8.5	0.0227	0.2439
USG Durock Primer-Sealer (Wood and USG Structural Panel Subfloors)	2	976	0	0	8.5	0.0087	0.0937
USG Durock Primer-Sealer (SLU)	4	2125	0	0	8.5	0.0040	0.0430

2.2 Reference Service Life

USG Durock™ Brand Primer-Sealer is intended to USG Durock ™ Brand Primer -Sealer is intended to promote adhesion of USG Durock ™ Brand Self -Leveling Underlayments to the subfloor and floor covering adhesives to USG Durock ™ Brand Multi-Use Self -Leveling Underlayment when applied as a sealer. This product is not a wear coating and is always intended to be covered by a finished floor good. As such it becomes a permanent part of the floor structure and is not intended to be replaced during the life of the building. A default RSL of 60 years is assumed for the product. An assumed Estimated Service Life (ESL) of 60 years shall be used for building life.

2.3 System Boundary

This EPD represents a "cradle-to-grave" LCA analysis for USG Durock™ Brand Primer-Sealer. It covers all the production steps from raw material extraction (i.e., the cradle) to end of life disposal (grave).

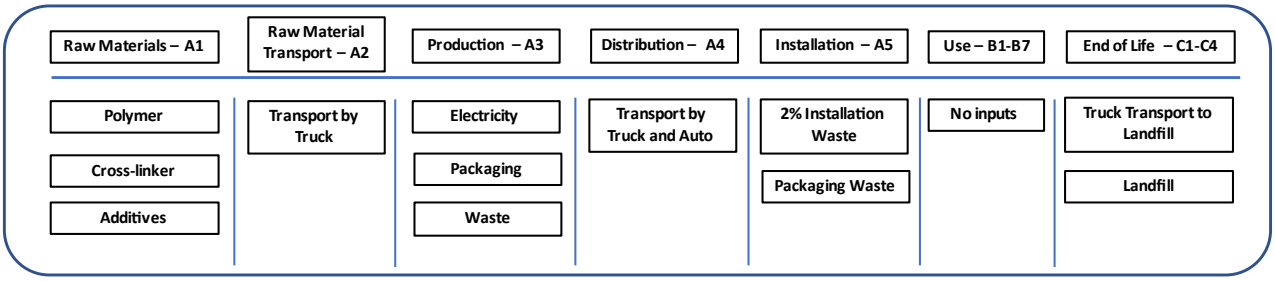


Figure 1: Specific processes covered by this EPD by life cycle stage

2.4 Estimates and Assumptions

The results are limited by the choice of proxy processes rather than actual supplier generated primary data. This would include the following processes. A GaBi supplied dataset for a specific polymer was used as a proxy for a vendor-supplied polymer. In addition, the data is limited in that the primary data was collected during 2021 and changes in operations may increase/decrease impacts in the future. Other data limitations include the use of secondary data sets instead of primary data for upstream and downstream processes, local impacts vs. global impacts, possible impacts vs. actual impacts, inherent uncertainty in the data sets, accuracy, and precision of impact assessment methodology, etc. Both human activity and capital equipment were excluded from the system boundary.

2.5 Cut-off Criteria

The applicable cut-off rules are described in ISO 21930:2017 clause 7.1.8. The cut-off criteria shall be 1% of renewable primary resource (energy), 1% nonrenewable primary resource (energy) usage, 1% of the total mass input of that unit process and 1% of environmental impacts. The total of neglected input flows per module shall be a maximum of 5% of energy usage, mass, and environmental impacts. For materials characterized as hazardous by the Globally Harmonized System (GHS), cut-off rules do not apply and such substances shall be included in the inventory.

2.6 Background Data

All background was sourced from critically reviewed GaBi databases.

2.7 Data Requirements and Data Sources

The LCA model was created using the GaBi software from Sphera. Specific comments related to data quality requirements cited in ISO 14025 Section 4.2.3.6.2 include the following.

Temporal: In the case of production, the LCI data was collected for the 2021 production year.

Geographical: Where possible, all processes were chosen as being representative of US manufacturing processes.

Technical: The data selected for this study is specific to the technology used in the preparation of the various raw materials.

Precision: The raw material usage amounts were derived from plant quality data and on plant product formulas.

Completeness: Virtually all the significant raw material flows (> 99%) have been modeled.

Representative: Where possible all the data sets were selected to be representative of US-based production, are less than 10 years in age and are representative of the technology being employed.

Consistency: All the manufacturing processes were modeled in a consistent manner throughout this study in accordance with the goal and scope definitions.

Reproducibility: The information contained in this study, including raw material, energy and transportation distance inputs, have been fully documented in the LCA report.

Sources of Data: The sources for the processes used in this study have been fully provided in the LCA report and are representative of the material and energy sources used in actual production.

Uncertainty: The relative uncertainty associated with this study has been minimized. No significant assumptions have been made.

2.8 Period Under Review

All raw material and energy inputs are for the 2021 calendar year.

2.9 Allocation

No allocation was required in this study. The LCI data was collected for the 2021 production year.

2.10 Comparability

Per ISO 21930:2017, comparability of product systems using this reference PCR shall only be done in the context of construction works and shall meet all requirements listed in Section 5.5.

Additionally, comparative assertions (i.e., superiority claims vs. a competing product) regarding the specific product system shall not be made in the EPD and any comparison must also consider both the limitations of LCA as only potential impacts are being reported by the EPD (damage is not being assessed). All EPDs must contain the statement on the limitations of the study described in Section 13 of this reference PCR.

3. Life Cycle Assessment Results

Product stage				Construction process stage				Use stage				End of life stage			
Raw Material Supply	Transport	Manufacturing	Transport	Construction-Installation Process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational Energy Use	Operational water Use	De-construction Demolition	Transport	Waste processing	Disposal
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Figure 2: System Boundary

The following results cover the application of USG Durock™ Brand Primer-Sealer applied to concrete/nonporous subfloors. The product is applied without dilution at a rate of 400-450 sq. ft./gal. (9.8-11.0 m2 /L). The following results are specifically using the application rate for concrete/nonporous subfloors and using the 1 gallon jug.

Environmental LCA Results for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Nonporous Subfloors - 1-Gallon Jug - Gypsum, OH

		Stage								
Impact Assessment Method: TRACI 2.1		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Environmental Impact Category	**Units**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**
Global Warming	kg CO2 eq.	1.06E-01	2.04E-02	3.56E-03	0.00E+00	0.00E+00	2.36E-04	0.00E+00	4.46E-03	1.35E-01
Ozone Depletion Potential (ODP)	kg CFC 11 eq.	1.85E-15	3.85E-17	5.05E-17	0.00E+00	0.00E+00	4.47E-19	0.00E+00	7.01E-17	2.01E-15
Acidification Potential	kg SO2 eq.	3.16E-04	2.08E-05	1.14E-05	0.00E+00	0.00E+00	7.14E-07	0.00E+00	9.78E-06	3.58E-04
Eutrophication Potential (EP)	kg N eq.	2.23E-05	4.97E-06	2.29E-06	0.00E+00	0.00E+00	7.32E-08	0.00E+00	4.68E-07	3.01E-05
Photochemical Ozone Creation Potential (POCP)	kg O3 eq.	5.11E-03	4.96E-04	1.40E-04	0.00E+00	0.00E+00	1.63E-05	0.00E+00	1.90E-04	5.96E-03
Abiotic Depletion Potential (ADP) - fossil fuels	MJ surplus energy	3.77E-01	3.67E-02	9.23E-03	0.00E+00	0.00E+00	4.41E-04	0.00E+00	2.38E-03	4.26E-01

Resource and Waste Flows for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Nonporous Subfloors - 1-Gallon Jug - Gypsum, OH

	Units	Stage								
Use of Primary Resources		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Renewable primary resources used as an energy carrier (RPRE)	MJ, NCV	1.01E-01	1.70E-02	2.92E-03	0.00E+00	0.00E+00	1.29E-04	0.00E+00	2.76E-03	1.24E-01
Renewable primary resources with energy content used as material (RPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable primary resources used as an energy carrier (NRPRE)	MJ, NCV	2.96E+00	2.76E-01	7.21E-02	0.00E+00	0.00E+00	3.33E-03	0.00E+00	1.91E-02	3.33E+00
Non-renewable primary resources with energy content used as material (NRPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Secondary material, secondary fuel and recovered energy		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Secondary Material (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
Renewable Secondary Fuel (RSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable Secondary Fuel (NRSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Renewable Energy (RE)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Consumption of Fresh Water	m3	6.63E-04	8.58E-05	1.56E-05	0.00E+00	0.00E+00	4.65E-07	0.00E+00	4.71E-06	7.69E-04
Additional inventory parameters for transparency		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Removals and emissions associated with biogenic carbon content of the bio-based product	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emission from calcination and uptake from carbonation	kg CO2-eq.	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Removals and emissions associated with biogenic carbon content of the bio-based packaging	kg CO2-eq.	0.00E+00	2.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from land use change	kg CO2-eq.	1.30E-05	1.11E-05	6.87E-07	0.00E+00	0.00E+00	1.66E-07	0.00E+00	2.00E-06	2.69E-05
Emissions from combustion of waste from renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from combustion of waste from non-renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indicators describing waste		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Hazardous waste disposed	kg	1.46E-10	1.77E-12	3.81E-12	0.00E+00	0.00E+00	1.38E-14	0.00E+00	1.03E-12	1.52E-10
Non-hazardous waste disposed	kg	2.50E-03	6.54E-05	6.66E-03	0.00E+00	0.00E+00	2.86E-07	0.00E+00	9.69E-02	1.06E-01
High-level radioactive waste	kg	5.56E-05	8.58E-07	1.22E-06	0.00E+00	0.00E+00	9.22E-09	0.00E+00	2.18E-07	5.79E-05
Intermediate and low-level waste	kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assignments of output flows at the end-of-life		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Components for re-use (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
Materials for recycling (MR)	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
Materials for energy recovery (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
Recovered energy exported (EE)	MJ, NCV	0.00E+00	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 following results cover the application of USG Durock™ Brand Primer-Sealer applied to highly porous subfloors/shot-blasted concrete. The product is applied in 2 coats as described in section 1.3. The following results are specifically using the application rate for highly porous subfloors/shot-blasted concrete and using the 1 gallon jug.

Environmental LCA Results for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Highly Porous Concrete/Shot-Blasted Concrete Subfloors
1-Gallon Jug - Gypsum, OH

		Stage								
Impact Assessment Method: TRACI 2.1		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Environmental Impact Category	**Units**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**
Global Warming	**kg CO2 eq.**	1.20E-01	2.31E-02	4.03E-03	0.00E+00	0.00E+00	2.67E-04	0.00E+00	5.06E-03	1.53E-01
Ozone Depletion Potential (ODP)	**kg CFC 11 eq.**	2.10E-15	4.37E-17	5.73E-17	0.00E+00	0.00E+00	5.07E-19	0.00E+00	7.95E-17	2.28E-15
Acidification Potential	**kg SO2 eq.**	3.58E-04	2.36E-05	1.29E-05	0.00E+00	0.00E+00	8.09E-07	0.00E+00	1.11E-05	4.06E-04
Eutrophication Potential (EP)	**kg N eq.**	2.53E-05	5.64E-06	2.59E-06	0.00E+00	0.00E+00	8.30E-08	0.00E+00	5.31E-07	3.41E-05
Photochemical Ozone Creation Potential (POCP)	**kg O3 eq.**	5.79E-03	5.63E-04	1.59E-04	0.00E+00	0.00E+00	1.85E-05	0.00E+00	2.16E-04	6.75E-03
Abiotic Depletion Potential (ADP) - fossil fuels	**MJ surplus energy**	4.28E-01	4.15E-02	1.05E-02	0.00E+00	0.00E+00	4.99E-04	0.00E+00	2.70E-03	4.83E-01

Resource and Waste Flows for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Highly Porous Subfloors/Shot-Blasted Concrete - 1-Gallon Jug - Gypsum, OH

	Units	Stage								
Use of Primary Resources		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Renewable primary resources used as an energy carrier (RPRE)	MJ, NCV	1.14E-01	1.92E-02	3.31E-03	0.00E+00	0.00E+00	1.47E-04	0.00E+00	3.13E-03	1.40E-01
Renewable primary resources with energy content used as material (RPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable primary resources used as an energy carrier (NRPRE)	MJ, NCV	3.35E+00	3.13E-01	8.17E-02	0.00E+00	0.00E+00	3.77E-03	0.00E+00	2.17E-02	3.77E+00
Non-renewable primary resources with energy content used as material (NRPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Secondary material, secondary fuel and recovered energy		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Secondary Material (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
Renewable Secondary Fuel (RSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable Secondary Fuel (NRSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Renewable Energy (RE)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Consumption of Fresh Water	m3	7.51E-04	9.73E-05	1.77E-05	0.00E+00	0.00E+00	5.27E-07	0.00E+00	5.34E-06	8.72E-04
Additional inventory parameters for transparency		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Removals and emissions associated with biogenic carbon content of the bio-based product	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emission from calcination and uptake from carbonation	kg CO2-eq.	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Removals and emissions associated with biogenic carbon content of the bio-based packaging	kg CO2-eq.	0.00E+00	2.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from land use change	kg CO2-eq.	1.47E-05	1.26E-05	7.79E-07	0.00E+00	0.00E+00	1.88E-07	0.00E+00	2.27E-06	3.05E-05
Emissions from combustion of waste from renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from combustion of waste from non-renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indicators describing waste		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Hazardous waste disposed	kg	1.65E-10	2.00E-12	4.31E-12	0.00E+00	0.00E+00	1.57E-14	0.00E+00	1.16E-12	1.73E-10
Non-hazardous waste disposed	kg	2.83E-03	7.41E-05	7.55E-03	0.00E+00	0.00E+00	3.24E-07	0.00E+00	1.10E-01	1.20E-01
High-level radioactive waste	kg	6.30E-05	9.73E-07	1.38E-06	0.00E+00	0.00E+00	1.05E-08	0.00E+00	2.47E-07	6.56E-05
Intermediate and low-level waste	kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assignments of output flows at the end-of-life		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Components for re-use (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
Materials for recycling (MR)	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
Materials for energy recovery (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
Recovered energy exported (EE)	MJ, NCV	0.00E+00	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 following results cover the application of USG Durock™ Brand Primer-Sealer applied to wood subfloors and USG Structural Panel subfloors. The product is applied diluted (1 part product to 2 parts water) at a rate of 300-350 sq. ft./gal. (7.4-8.6 m2 /L). The following results are specifically using the application rate for wood and USG Structural Panel subfloors and using the 1 gallon jug.

Environmental LCA Results for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Wood and USG Structural Panel Subfloors
1-Gallon Jug - Gypsum, OH

		Stage								
Impact Assessment Method: TRACI 2.1		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Environmental Impact Category	**Units**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**
Global Warming	kg CO2 eq.	4.62E-02	8.86E-03	1.55E-03	0.00E+00	0.00E+00	1.03E-04	0.00E+00	1.94E-03	5.86E-02
Ozone Depletion Potential (ODP)	kg CFC 11 eq.	8.06E-16	1.68E-17	2.20E-17	0.00E+00	0.00E+00	1.95E-19	0.00E+00	3.05E-17	8.75E-16
Acidification Potential	kg SO2 eq.	1.37E-04	9.06E-06	4.95E-06	0.00E+00	0.00E+00	3.11E-07	0.00E+00	4.26E-06	1.56E-04
Eutrophication Potential (EP)	kg N eq.	9.72E-06	2.17E-06	9.96E-07	0.00E+00	0.00E+00	3.19E-08	0.00E+00	2.04E-07	1.31E-05
Photochemical Ozone Creation Potential (POCP)	kg O3 eq.	2.23E-03	2.16E-04	6.10E-05	0.00E+00	0.00E+00	7.09E-06	0.00E+00	8.28E-05	2.59E-03
Abiotic Depletion Potential (ADP) - fossil fuels	MJ surplus energy	1.64E-01	1.60E-02	4.02E-03	0.00E+00	0.00E+00	1.92E-04	0.00E+00	1.04E-03	1.86E-01

Resource and Waste Flows for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Wood and USG Structural Panel Subfloors - 1-Gallon Jug - Gypsum, OH

	Units	Stage								
Use of Primary Resources		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Renewable primary resources used as an energy carrier (RPRE)	MJ, NCV	4.40E-02	7.39E-03	1.27E-03	0.00E+00	0.00E+00	5.64E-05	0.00E+00	1.20E-03	5.39E-02
Renewable primary resources with energy content used as material (RPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable primary resources used as an energy carrier (NRPRE)	MJ, NCV	1.29E+00	1.20E-01	3.14E-02	0.00E+00	0.00E+00	1.45E-03	0.00E+00	8.33E-03	1.45E+00
Non-renewable primary resources with energy content used as material (NRPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Secondary material, secondary fuel and recovered energy		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Secondary Material (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
Renewable Secondary Fuel (RSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable Secondary Fuel (NRSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Renewable Energy (RE)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Consumption of Fresh Water	m3	2.89E-04	3.74E-05	6.79E-06	0.00E+00	0.00E+00	2.03E-07	0.00E+00	2.05E-06	3.35E-04
Additional inventory parameters for transparency		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Removals and emissions associated with biogenic carbon content of the bio-based product	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emission from calcination and uptake from carbonation	kg CO2-eq.	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Removals and emissions associated with biogenic carbon content of the bio-based packaging	kg CO2-eq.	0.00E+00	2.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from land use change	kg CO2-eq.	5.64E-06	4.84E-06	2.99E-07	0.00E+00	0.00E+00	7.22E-08	0.00E+00	8.73E-07	1.17E-05
Emissions from combustion of waste from renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from combustion of waste from non-renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indicators describing waste		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Hazardous waste disposed	kg	6.35E-11	7.70E-13	1.66E-12	0.00E+00	0.00E+00	6.02E-15	0.00E+00	4.46E-13	6.64E-11
Non-hazardous waste disposed	kg	1.09E-03	2.85E-05	2.90E-03	0.00E+00	0.00E+00	1.25E-07	0.00E+00	4.22E-02	4.62E-02
High-level radioactive waste	kg	2.42E-05	3.74E-07	5.32E-07	0.00E+00	0.00E+00	4.02E-09	0.00E+00	9.49E-08	2.52E-05
Intermediate and low-level waste	kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assignments of output flows at the end-of-life		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Components for re-use (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
Materials for recycling (MR)	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
Materials for energy recovery (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
Recovered energy exported (EE)	MJ, NCV	0.00E+00	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 following results cover the application of USG Durock™ Brand Primer-Sealer applied to USG Durock™ Multi-Use Self-Leveling Underlayments. The product is applied diluted (1 part product to 4 parts water) at a rate of 400-450 sq. ft./gal. (9.8-11.0 m2 /L). The following results are specifically using the application rate for application to USG Durock™ Multi-Use Self-Leveling Underlayments and using the 1 gallon jug.

Environmental LCA Results for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Durock™ Multi-Use Self-Leveling Underlayments
1-Gallon Jug - Gypsum, OH

		Stage								
Impact Assessment Method: TRACI 2.1		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Environmental Impact Category	**Units**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**
Global Warming	kg CO2 eq.	2.12E-02	4.07E-03	7.11E-04	0.00E+00	0.00E+00	4.71E-05	0.00E+00	8.92E-04	2.69E-02
Ozone Depletion Potential (ODP)	kg CFC 11 eq.	3.70E-16	7.71E-18	1.01E-17	0.00E+00	0.00E+00	8.94E-20	0.00E+00	1.40E-17	4.02E-16
Acidification Potential	kg SO2 eq.	6.31E-05	4.16E-06	2.27E-06	0.00E+00	0.00E+00	1.43E-07	0.00E+00	1.96E-06	7.17E-05
Eutrophication Potential (EP)	kg N eq.	4.46E-06	9.95E-07	4.57E-07	0.00E+00	0.00E+00	1.46E-08	0.00E+00	9.37E-08	6.02E-06
Photochemical Ozone Creation Potential (POCP)	kg O3 eq.	1.02E-03	9.93E-05	2.80E-05	0.00E+00	0.00E+00	3.26E-06	0.00E+00	3.81E-05	1.19E-03
Abiotic Depletion Potential (ADP) - fossil fuels	MJ surplus energy	7.55E-02	7.33E-03	1.85E-03	0.00E+00	0.00E+00	8.81E-05	0.00E+00	4.77E-04	8.52E-02

Resource and Waste Flows for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Durock™ Multi-Use Self-Leveling Underlayments
1-Gallon Jug - Gypsum, OH

	Units	Stage								
Use of Primary Resources		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Renewable primary resources used as an energy carrier (RPRE)	MJ, NCV	2.02E-02	3.39E-03	5.85E-04	0.00E+00	0.00E+00	2.59E-05	0.00E+00	5.53E-04	2.48E-02
Renewable primary resources with energy content used as material (RPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable primary resources used as an energy carrier (NRPRE)	MJ, NCV	5.92E-01	5.53E-02	1.44E-02	0.00E+00	0.00E+00	6.66E-04	0.00E+00	3.83E-03	6.66E-01
Non-renewable primary resources with energy content used as material (NRPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Secondary material, secondary fuel and recovered energy		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Secondary Material (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
Renewable Secondary Fuel (RSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable Secondary Fuel (NRSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Renewable Energy (RE)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Consumption of Fresh Water	m3	1.33E-04	1.72E-05	3.12E-06	0.00E+00	0.00E+00	9.30E-08	0.00E+00	9.42E-07	1.54E-04
Additional inventory parameters for transparency		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Removals and emissions associated with biogenic carbon content of the bio-based product	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emission from calcination and uptake from carbonation	kg CO2-eq.	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Removals and emissions associated with biogenic carbon content of the bio-based packaging	kg CO2-eq.	0.00E+00	2.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from land use change	kg CO2-eq.	2.59E-06	2.22E-06	1.37E-07	0.00E+00	0.00E+00	3.32E-08	0.00E+00	4.01E-07	5.39E-06
Emissions from combustion of waste from renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from combustion of waste from non-renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indicators describing waste		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Hazardous waste disposed	kg	2.92E-11	3.54E-13	7.61E-13	0.00E+00	0.00E+00	2.77E-15	0.00E+00	2.05E-13	3.05E-11
Non-hazardous waste disposed	kg	4.99E-04	1.31E-05	1.33E-03	0.00E+00	0.00E+00	5.72E-08	0.00E+00	1.94E-02	2.12E-02
High-level radioactive waste	kg	1.11E-05	1.72E-07	2.44E-07	0.00E+00	0.00E+00	1.84E-09	0.00E+00	4.36E-08	1.16E-05
Intermediate and low-level waste	kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assignments of output flows at the end-of-life		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Components for re-use (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
Materials for recycling (MR)	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
Materials for energy recovery (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
Recovered energy exported (EE)	MJ, NCV	0.00E+00	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 following results cover USG Durock™ Brand Primer-Sealer in a 1-gallon jug.

Environmental LCA Results Per Gallon for a 1-Gallon Jug of USG Durock™ Brand Primer-Sealer Gypsum, OH

		Stage								
Impact Assessment Method: TRACI 2.1		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Environmental Impact Category	**Units**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**
Global Warming	kg CO2 eq.	4.19E+00	8.04E-01	1.40E-01	0.00E+00	0.00E+00	9.31E-03	0.00E+00	1.76E-01	5.32E+00
Ozone Depletion Potential (ODP)	kg CFC 11 eq.	7.31E-14	1.52E-15	2.00E-15	0.00E+00	0.00E+00	1.77E-17	0.00E+00	2.77E-15	7.94E-14
Acidification Potential	kg SO2 eq.	1.25E-02	8.21E-04	4.46E-04	0.00E+00	0.00E+00	2.82E-05	0.00E+00	3.86E-04	1.41E-02
Eutrophication Potential (EP)	kg N eq.	8.81E-04	1.96E-04	8.94E-05	0.00E+00	0.00E+00	2.89E-06	0.00E+00	1.85E-05	1.19E-03
Photochemical Ozone Creation Potential (POCP)	kg O3 eq.	2.02E-01	1.96E-02	5.53E-03	0.00E+00	0.00E+00	6.43E-04	0.00E+00	7.51E-03	2.35E-01
Abiotic Depletion Potential (ADP) - fossil fuels	MJ surplus energy	1.49E+01	1.45E+00	3.64E-01	0.00E+00	0.00E+00	1.74E-02	0.00E+00	9.41E-02	1.68E+01

Resource and Waste Flows Per Gallon for a 1-Gallon Jug of USG Durock™ Brand Primer-Sealer - Gypsum, OH

	Units	Stage								
Use of Primary Resources		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Renewable primary resources used as an energy carrier (RPRE)	MJ, NCV	3.99E+00	6.70E-01	1.15E-01	0.00E+00	0.00E+00	5.11E-03	0.00E+00	1.09E-01	4.89E+00
Renewable primary resources with energy content used as material (RPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable primary resources used as an energy carrier (NRPRE)	MJ, NCV	1.17E+02	1.09E+01	2.85E+00	0.00E+00	0.00E+00	1.31E-01	0.00E+00	7.55E-01	1.31E+02
Non-renewable primary resources with energy content used as material (NRPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Secondary material, secondary fuel and recovered energy		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Secondary Material (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
Renewable Secondary Fuel (RSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable Secondary Fuel (NRSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Renewable Energy (RE)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Consumption of Fresh Water	m3	2.62E-02	3.39E-03	6.15E-04	0.00E+00	0.00E+00	1.84E-05	0.00E+00	1.86E-04	3.04E-02
Additional inventory parameters for transparency		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Removals and emissions associated with biogenic carbon content of the bio-based product	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emission from calcination and uptake from carbonation	kg CO2-eq.	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Removals and emissions associated with biogenic carbon content of the bio-based packaging	kg CO2-eq.	0.00E+00	2.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from land use change	kg CO2-eq.	5.11E-04	4.39E-04	2.71E-05	0.00E+00	0.00E+00	6.55E-06	0.00E+00	7.92E-05	1.06E-03
Emissions from combustion of waste from renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from combustion of waste from non-renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indicators describing waste		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Hazardous waste disposed	kg	5.76E-09	6.99E-11	1.50E-10	0.00E+00	0.00E+00	5.46E-13	0.00E+00	4.05E-11	6.02E-09
Non-hazardous waste disposed	kg	9.86E-02	2.58E-03	2.62E-01	0.00E+00	0.00E+00	1.13E-05	0.00E+00	3.83E+00	4.19E+00
High-level radioactive waste	kg	2.19E-03	3.39E-05	4.83E-05	0.00E+00	0.00E+00	3.64E-07	0.00E+00	8.61E-06	2.29E-03
Intermediate and low-level waste	kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assignments of output flows at the end-of-life		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Components for re-use (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
Materials for recycling (MR)	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
Materials for energy recovery (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
Recovered energy exported (EE)	MJ, NCV	0.00E+00	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 following results cover the application of USG Durock™ Brand Primer-Sealer applied to concrete/nonporous subfloors. The product is applied without dilution at a rate of 400-450 sq. ft./gal. (9.8-11.0 m2 /L). The following results are specifically using the application rate for concrete/nonporous subfloors and using the 5 gallon pail.

Environmental LCA Results for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Nonporous Subfloors - 5-Gallon Pail - Gypsum, OH

		Stage								
Impact Assessment Method: TRACI 2.1		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Environmental Impact Category	**Units**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**
Global Warming	kg CO2 eq.	1.11E-01	2.08E-02	3.36E-03	0.00E+00	0.00E+00	2.36E-04	0.00E+00	4.46E-03	1.40E-01
Ozone Depletion Potential (ODP)	kg CFC 11 eq.	1.94E-15	3.93E-17	5.47E-17	0.00E+00	0.00E+00	4.47E-19	0.00E+00	7.01E-17	2.11E-15
Acidification Potential	kg SO2 eq.	3.26E-04	2.12E-05	1.11E-05	0.00E+00	0.00E+00	7.14E-07	0.00E+00	9.78E-06	3.69E-04
Eutrophication Potential (EP)	kg N eq.	2.31E-05	5.07E-06	2.41E-06	0.00E+00	0.00E+00	7.32E-08	0.00E+00	4.68E-07	3.11E-05
Photochemical Ozone Creation Potential (POCP)	kg O3 eq.	5.35E-03	5.06E-04	1.42E-04	0.00E+00	0.00E+00	1.63E-05	0.00E+00	1.90E-04	6.21E-03
Abiotic Depletion Potential (ADP) - fossil fuels	MJ surplus energy	3.97E-01	3.74E-02	9.89E-03	0.00E+00	0.00E+00	4.41E-04	0.00E+00	2.38E-03	4.47E-01

Resource and Waste Flows for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Nonporous Subfloors - 5-Gallon Pail - Gypsum, OH

	Units	Stage								
Use of Primary Resources		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Renewable primary resources used as an energy carrier (RPRE)	MJ, NCV	1.05E-01	1.73E-02	3.43E-03	0.00E+00	0.00E+00	1.29E-04	0.00E+00	2.76E-03	1.29E-01
Renewable primary resources with energy content used as material (RPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable primary resources used as an energy carrier (NRPRE)	MJ, NCV	3.11E+00	2.82E-01	7.30E-02	0.00E+00	0.00E+00	3.33E-03	0.00E+00	1.91E-02	3.48E+00
Non-renewable primary resources with energy content used as material (NRPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Secondary material, secondary fuel and recovered energy		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Secondary Material (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
Renewable Secondary Fuel (RSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable Secondary Fuel (NRSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Renewable Energy (RE)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Consumption of Fresh Water	m3	6.92E-04	8.75E-05	1.44E-05	0.00E+00	0.00E+00	4.65E-07	0.00E+00	4.71E-06	7.99E-04
Additional inventory parameters for transparency		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Removals and emissions associated with biogenic carbon content of the bio-based product	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emission from calcination and uptake from carbonation	kg CO2-eq.	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Removals and emissions associated with biogenic carbon content of the bio-based packaging	kg CO2-eq.	0.00E+00	2.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from land use change	kg CO2-eq.	1.35E-05	1.13E-05	7.58E-07	0.00E+00	0.00E+00	1.66E-07	0.00E+00	2.00E-06	2.78E-05
Emissions from combustion of waste from renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from combustion of waste from non-renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indicators describing waste		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Hazardous waste disposed	kg	1.53E-10	1.80E-12	4.21E-12	0.00E+00	0.00E+00	1.38E-14	0.00E+00	1.03E-12	1.60E-10
Non-hazardous waste disposed	kg	2.55E-03	6.67E-05	8.54E-03	0.00E+00	0.00E+00	2.86E-07	0.00E+00	9.69E-02	1.08E-01
High-level radioactive waste	kg	5.73E-05	8.75E-07	1.28E-06	0.00E+00	0.00E+00	9.22E-09	0.00E+00	2.18E-07	5.97E-05
Intermediate and low-level waste	kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assignments of output flows at the end-of-life		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Components for re-use (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
Materials for recycling (MR)	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
Materials for energy recovery (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
Recovered energy exported (EE)	MJ, NCV	0.00E+00	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 following results cover the application of USG Durock™ Brand Primer-Sealer applied to highly porous subfloors/shot-blasted concrete. The product is applied in 2 coats as described in section 1.3. The following results are specifically using the application rate for highly porous subfloors/shot-blasted concrete and using the 5 gallon pail.

Environmental LCA Results for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Highly Porous Concrete/Shot-Blasted Concrete Subfloors
5-Gallon Pail - Gypsum, OH

		Stage								
Impact Assessment Method: TRACI 2.1		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Environmental Impact Category	**Units**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**
Global Warming	kg CO2 eq.	1.26E-01	2.35E-02	4.25E-03	0.00E+00	0.00E+00	2.67E-04	0.00E+00	5.06E-03	1.59E-01
Ozone Depletion Potential (ODP)	kg CFC 11 eq.	2.20E-15	4.46E-17	6.34E-17	0.00E+00	0.00E+00	5.07E-19	0.00E+00	7.95E-17	2.39E-15
Acidification Potential	kg SO2 eq.	3.69E-04	2.40E-05	1.34E-05	0.00E+00	0.00E+00	8.09E-07	0.00E+00	1.11E-05	4.19E-04
Eutrophication Potential (EP)	kg N eq.	2.61E-05	5.75E-06	2.79E-06	0.00E+00	0.00E+00	8.30E-08	0.00E+00	5.31E-07	3.53E-05
Photochemical Ozone Creation Potential (POCP)	kg O3 eq.	6.07E-03	5.74E-04	1.70E-04	0.00E+00	0.00E+00	1.85E-05	0.00E+00	2.16E-04	7.04E-03
Abiotic Depletion Potential (ADP) - fossil fuels	MJ surplus energy	4.50E-01	4.24E-02	1.12E-02	0.00E+00	0.00E+00	4.99E-04	0.00E+00	2.70E-03	5.06E-01

Resource and Waste Flows for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Highly Porous Concrete/Shot-Blasted Concrete Subfloors - 5-Gallon Pail - Gypsum, OH

	Units	Stage								
Use of Primary Resources		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Renewable primary resources used as an energy carrier (RPRE)	MJ, NCV	1.20E-01	1.96E-02	3.63E-03	0.00E+00	0.00E+00	1.47E-04	0.00E+00	3.13E-03	1.46E-01
Renewable primary resources with energy content used as material (RPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable primary resources used as an energy carrier (NRPRE)	MJ, NCV	3.52E+00	3.20E-01	8.69E-02	0.00E+00	0.00E+00	3.77E-03	0.00E+00	2.17E-02	3.95E+00
Non-renewable primary resources with energy content used as material (NRPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Secondary material, secondary fuel and recovered energy		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Secondary Material (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
Renewable Secondary Fuel (RSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable Secondary Fuel (NRSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Renewable Energy (RE)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Consumption of Fresh Water	m3	7.85E-04	9.92E-05	1.82E-05	0.00E+00	0.00E+00	5.27E-07	0.00E+00	5.34E-06	9.08E-04
Additional inventory parameters for transparency		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Removals and emissions associated with biogenic carbon content of the bio-based product	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emission from calcination and uptake from carbonation	kg CO2-eq.	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Removals and emissions associated with biogenic carbon content of the bio-based packaging	kg CO2-eq.	0.00E+00	2.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from land use change	kg CO2-eq.	1.54E-05	1.28E-05	8.68E-07	0.00E+00	0.00E+00	1.88E-07	0.00E+00	2.27E-06	3.15E-05
Emissions from combustion of waste from renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from combustion of waste from non-renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indicators describing waste		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Hazardous waste disposed	kg	1.74E-10	2.04E-12	4.80E-12	0.00E+00	0.00E+00	1.57E-14	0.00E+00	1.16E-12	1.82E-10
Non-hazardous waste disposed	kg	2.90E-03	7.55E-05	9.62E-03	0.00E+00	0.00E+00	3.24E-07	0.00E+00	1.10E-01	1.22E-01
High-level radioactive waste	kg	6.50E-05	9.92E-07	1.45E-06	0.00E+00	0.00E+00	1.05E-08	0.00E+00	2.47E-07	6.77E-05
Intermediate and low-level waste	kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assignments of output flows at the end-of-life		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Components for re-use (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
Materials for recycling (MR)	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
Materials for energy recovery (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
Recovered energy exported (EE)	MJ, NCV	0.00E+00	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 following results cover the application of USG Durock™ Brand Primer-Sealer applied to wood subfloors and USG Structural Panel subfloors. The product is applied diluted (1 part product to 2 parts water) at a rate of 300-350 sq. ft./gal. (7.4-8.6 m2 /L). The following results are specifically using the application rate for wood and USG Structural Panel subfloors and using the 5 gallon pail.

Environmental LCA Results for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Wood and USG Structural Panel Subfloors
5-Gallon Pail - Gypsum, OH

		Stage								
Impact Assessment Method: TRACI 2.1		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Environmental Impact Category	**Units**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**
Global Warming	kg CO2 eq.	4.84E-02	9.04E-03	1.46E-03	0.00E+00	0.00E+00	1.03E-04	0.00E+00	1.94E-03	6.09E-02
Ozone Depletion Potential (ODP)	kg CFC 11 eq.	8.47E-16	1.71E-17	2.38E-17	0.00E+00	0.00E+00	1.95E-19	0.00E+00	3.05E-17	9.19E-16
Acidification Potential	kg SO2 eq.	1.42E-04	9.24E-06	4.85E-06	0.00E+00	0.00E+00	3.11E-07	0.00E+00	4.26E-06	1.61E-04
Eutrophication Potential (EP)	kg N eq.	1.00E-05	2.21E-06	1.05E-06	0.00E+00	0.00E+00	3.19E-08	0.00E+00	2.04E-07	1.35E-05
Photochemical Ozone Creation Potential (POCP)	kg O3 eq.	2.33E-03	2.21E-04	6.17E-05	0.00E+00	0.00E+00	7.09E-06	0.00E+00	8.28E-05	2.70E-03
Abiotic Depletion Potential (ADP) - fossil fuels	MJ surplus energy	1.73E-01	1.63E-02	4.30E-03	0.00E+00	0.00E+00	1.92E-04	0.00E+00	1.04E-03	1.95E-01

Resource and Waste Flows for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Wood and USG Structural Panel Subfloors - 5-Gallon Pail - Gypsum, OH

	Units	Stage								
Use of Primary Resources		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Renewable primary resources used as an energy carrier (RPRE)	MJ, NCV	4.59E-02	7.54E-03	1.50E-03	0.00E+00	0.00E+00	5.64E-05	0.00E+00	1.20E-03	5.62E-02
Renewable primary resources with energy content used as material (RPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable primary resources used as an energy carrier (NRPRE)	MJ, NCV	1.35E+00	1.23E-01	3.18E-02	0.00E+00	0.00E+00	1.45E-03	0.00E+00	8.33E-03	1.52E+00
Non-renewable primary resources with energy content used as material (NRPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Secondary material, secondary fuel and recovered energy		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Secondary Material (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
Renewable Secondary Fuel (RSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable Secondary Fuel (NRSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Renewable Energy (RE)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Consumption of Fresh Water	m3	3.02E-04	3.81E-05	6.26E-06	0.00E+00	0.00E+00	2.03E-07	0.00E+00	2.05E-06	3.48E-04
Additional inventory parameters for transparency		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Removals and emissions associated with biogenic carbon content of the bio-based product	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emission from calcination and uptake from carbonation	kg CO2-eq.	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Removals and emissions associated with biogenic carbon content of the bio-based packaging	kg CO2-eq.	0.00E+00	2.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from land use change	kg CO2-eq.	5.90E-06	4.94E-06	3.30E-07	0.00E+00	0.00E+00	7.22E-08	0.00E+00	8.73E-07	1.21E-05
Emissions from combustion of waste from renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from combustion of waste from non-renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indicators describing waste		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Hazardous waste disposed	kg	6.67E-11	7.86E-13	1.83E-12	0.00E+00	0.00E+00	6.02E-15	0.00E+00	4.46E-13	6.98E-11
Non-hazardous waste disposed	kg	1.11E-03	2.90E-05	3.72E-03	0.00E+00	0.00E+00	1.25E-07	0.00E+00	4.22E-02	4.70E-02
High-level radioactive waste	kg	2.50E-05	3.81E-07	5.58E-07	0.00E+00	0.00E+00	4.02E-09	0.00E+00	9.49E-08	2.60E-05
Intermediate and low-level waste	kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assignments of output flows at the end-of-life		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Components for re-use (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
Materials for recycling (MR)	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
Materials for energy recovery (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
Recovered energy exported (EE)	MJ, NCV	0.00E+00	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 following results cover the application of USG Durock™ Brand Primer-Sealer applied to USG Durock™ Multi-Use Self-Leveling Underlayments. The product is applied diluted (1 part product to 4 parts water) at a rate of 400-450 sq. ft./gal. (9.8-11.0 m2 /L). The following results are specifically using the application rate for application to USG Durock™ Multi-Use Self-Leveling Underlayments and using the 5 gallon pail.

Environmental LCA Results for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Durock™ Multi-Use Self-Leveling Underlayments
5-Gallon Pail - Gypsum, OH

		Stage								
Impact Assessment Method: TRACI 2.1		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Environmental Impact Category	**Units**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**
Global Warming	kg CO2 eq.	2.22E-02	4.15E-03	6.73E-04	0.00E+00	0.00E+00	4.71E-05	0.00E+00	8.92E-04	2.80E-02
Ozone Depletion Potential (ODP)	kg CFC 11 eq.	3.89E-16	7.86E-18	1.09E-17	0.00E+00	0.00E+00	8.94E-20	0.00E+00	1.40E-17	4.22E-16
Acidification Potential	kg SO2 eq.	6.52E-05	4.24E-06	2.23E-06	0.00E+00	0.00E+00	1.43E-07	0.00E+00	1.96E-06	7.38E-05
Eutrophication Potential (EP)	kg N eq.	4.61E-06	1.01E-06	4.81E-07	0.00E+00	0.00E+00	1.46E-08	0.00E+00	9.37E-08	6.22E-06
Photochemical Ozone Creation Potential (POCP)	kg O3 eq.	1.07E-03	1.01E-04	2.83E-05	0.00E+00	0.00E+00	3.26E-06	0.00E+00	3.81E-05	1.24E-03
Abiotic Depletion Potential (ADP) - fossil fuels	MJ surplus energy	7.93E-02	7.48E-03	1.98E-03	0.00E+00	0.00E+00	8.81E-05	0.00E+00	4.77E-04	8.94E-02

Resource and Waste Flows for USG Durock™ Brand Primer-Sealer
1 Square Meter of Applied Coating at the Standard Application Rate for Durock™ Multi-Use Self-Leveling Underlayments
5-Gallon Pail - Gypsum, OH

	Units	Stage								
Use of Primary Resources		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Renewable primary resources used as an energy carrier (RPRE)	MJ, NCV	2.11E-02	3.46E-03	6.86E-04	0.00E+00	0.00E+00	2.59E-05	0.00E+00	5.53E-04	2.58E-02
Renewable primary resources with energy content used as material (RPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable primary resources used as an energy carrier (NRPRE)	MJ, NCV	6.21E-01	5.64E-02	1.46E-02	0.00E+00	0.00E+00	6.66E-04	0.00E+00	3.83E-03	6.97E-01
Non-renewable primary resources with energy content used as material (NRPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Secondary material, secondary fuel and recovered energy		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Secondary Material (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
Renewable Secondary Fuel (RSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable Secondary Fuel (NRSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Renewable Energy (RE)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Consumption of Fresh Water	m3	1.38E-04	1.75E-05	2.87E-06	0.00E+00	0.00E+00	9.30E-08	0.00E+00	9.42E-07	1.60E-04
Additional inventory parameters for transparency		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Removals and emissions associated with biogenic carbon content of the bio-based product	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emission from calcination and uptake from carbonation	kg CO2-eq.	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Removals and emissions associated with biogenic carbon content of the bio-based packaging	kg CO2-eq.	0.00E+00	2.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from land use change	kg CO2-eq.	2.71E-06	2.27E-06	1.51E-07	0.00E+00	0.00E+00	3.32E-08	0.00E+00	4.01E-07	5.56E-06
Emissions from combustion of waste from renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from combustion of waste from non-renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indicators describing waste		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Hazardous waste disposed	kg	3.07E-11	3.61E-13	8.42E-13	0.00E+00	0.00E+00	2.77E-15	0.00E+00	2.05E-13	3.21E-11
Non-hazardous waste disposed	kg	5.11E-04	1.33E-05	1.71E-03	0.00E+00	0.00E+00	5.72E-08	0.00E+00	1.94E-02	2.16E-02
High-level radioactive waste	kg	1.15E-05	1.75E-07	2.56E-07	0.00E+00	0.00E+00	1.84E-09	0.00E+00	4.36E-08	1.19E-05
Intermediate and low-level waste	kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assignments of output flows at the end-of-life		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Components for re-use (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
Materials for recycling (MR)	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
Materials for energy recovery (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
Recovered energy exported (EE)	MJ, NCV	0.00E+00	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 following results cover USG Durock™ Brand Primer-Sealer in a 5-gallon pail.

Environmental LCA Results Per Gallon for a 5-Gallon Pail of USG Durock™ Brand Primer-Sealer Gypsum, OH

		Stage								
Impact Assessment Method: TRACI 2.1		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Environmental Impact Category	**Units**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**	**Impact**
Global Warming	kg CO2 eq.	4.39E+00	8.20E-01	1.33E-01	0.00E+00	0.00E+00	9.31E-03	0.00E+00	1.76E-01	5.52E+00
Ozone Depletion Potential (ODP)	kg CFC 11 eq.	7.68E-14	1.55E-15	2.18E-15	0.00E+00	0.00E+00	1.77E-17	0.00E+00	2.77E-15	8.33E-14
Acidification Potential	kg SO2 eq.	1.29E-02	8.38E-04	4.38E-04	0.00E+00	0.00E+00	2.82E-05	0.00E+00	3.86E-04	1.46E-02
Eutrophication Potential (EP)	kg N eq.	9.10E-04	2.00E-04	9.49E-05	0.00E+00	0.00E+00	2.89E-06	0.00E+00	1.85E-05	1.23E-03
Photochemical Ozone Creation Potential (POCP)	kg O3 eq.	2.11E-01	2.00E-02	5.61E-03	0.00E+00	0.00E+00	6.43E-04	0.00E+00	7.51E-03	2.45E-01
Abiotic Depletion Potential (ADP) - fossil fuels	MJ surplus energy	1.57E+01	1.48E+00	3.92E-01	0.00E+00	0.00E+00	1.74E-02	0.00E+00	9.41E-02	1.76E+01

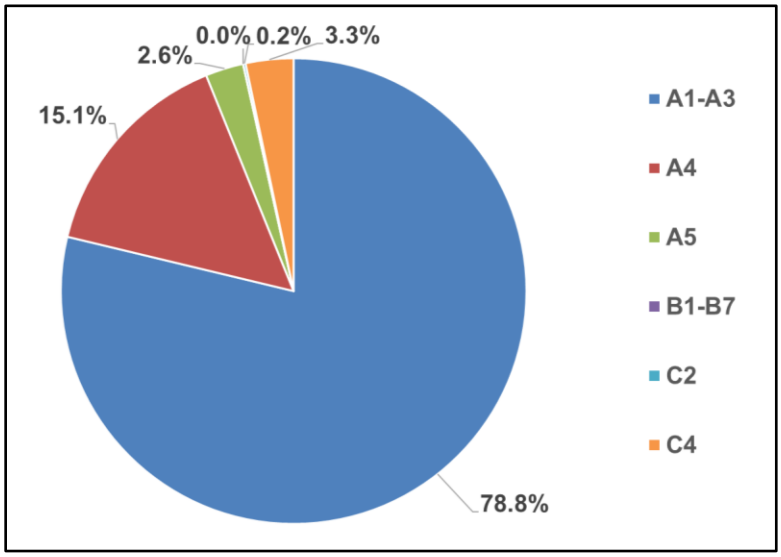
Resource and Waste Flows Per Gallon for a 5-Gallon Pail of USG Durock™ Brand Primer-Sealer - Gypsum, OH

	Units	Stage								
Use of Primary Resources		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Renewable primary resources used as an energy carrier (RPRE)	MJ, NCV	4.16E+00	6.84E-01	1.37E-01	0.00E+00	0.00E+00	5.11E-03	0.00E+00	1.09E-01	5.10E+00
Renewable primary resources with energy content used as material (RPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable primary resources used as an energy carrier (NRPRE)	MJ, NCV	1.23E+02	1.11E+01	2.89E+00	0.00E+00	0.00E+00	1.31E-01	0.00E+00	7.55E-01	1.38E+02
Non-renewable primary resources with energy content used as material (NRPRM)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Secondary material, secondary fuel and recovered energy		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Secondary Material (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
Renewable Secondary Fuel (RSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable Secondary Fuel (NRSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Renewable Energy (RE)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Consumption of Fresh Water	m3	2.73E-02	3.46E-03	5.66E-04	0.00E+00	0.00E+00	1.84E-05	0.00E+00	1.86E-04	3.16E-02
Additional inventory parameters for transparency		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Removals and emissions associated with biogenic carbon content of the bio-based product	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emission from calcination and uptake from carbonation	kg CO2-eq.	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Removals and emissions associated with biogenic carbon content of the bio-based packaging	kg CO2-eq.	0.00E+00	2.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from land use change	kg CO2-eq.	5.35E-04	4.48E-04	3.02E-05	0.00E+00	0.00E+00	6.55E-06	0.00E+00	7.92E-05	1.10E-03
Emissions from combustion of waste from renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from combustion of waste from non-renewable sources used in production processes	kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indicators describing waste		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Hazardous waste disposed	kg	6.05E-09	7.12E-11	1.68E-10	0.00E+00	0.00E+00	5.46E-13	0.00E+00	4.05E-11	6.33E-09
Non-hazardous waste disposed	kg	1.01E-01	2.63E-03	3.46E-01	0.00E+00	0.00E+00	1.13E-05	0.00E+00	3.83E+00	4.28E+00
High-level radioactive waste	kg	2.26E-03	3.46E-05	5.07E-05	0.00E+00	0.00E+00	3.64E-07	0.00E+00	8.61E-06	2.36E-03
Intermediate and low-level waste	kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assignments of output flows at the end-of-life		**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**Total A1-C4**
Components for re-use (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
Materials for recycling (MR)	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
Materials for energy recovery (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
Recovered energy exported (EE)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

4. LCA Interpretation

The LCA results for the production of USG Durock™ Brand Primer-Sealer were dominated by impacts associated with the polymer content of this product.

Figure 3: Process Dominance Analysis for GWP for 1 Square Meter of Applied Coating at the Standard Application Rate for Nonporous Subfloors using a 1-Gallon Jug produced at Gypsum, OH



5. References

LCA Report

A Cradle-to-Gate and Cradle-to-Grave Life Cycle Assessment of USG Sealers and Primers, 2/2/23. USG (Confidential)

Product PCR

NSF: PCR for Resinous Floor Coatings; valid through December 17, 2023

Sustainability Reporting Standards

ISO 14025:2006 - Environmental labels and declarations — Type III environmental declarations — Principles and procedures

ISO 21930:2017 - Sustainability in buildings and civil engineering works — Core rules for environmental product declarations of construction products and services