

ENVIRONMENTAL PRODUCT DECLARATION

BEHR PREMIUM® EXTERIOR PAINT

EXTERIOR PAINT



Shown above: BEHR PREMIUM® Exterior Paint is a GREENGUARD® Gold certified, high-quality paint that conceals imperfections.



Behr Paint Company, producer of BEHR® and KILZ® products, is one of the largest manufacturers and suppliers of paint, primers, stains and surface finish products to do-it-yourselfers and professionals. Sustainability is a core concept of our business strategy and culture ensuring top economic, social and environmental performance. Behr Paint Company's commitment to sustainability, quality, value, and performance has driven our desire for innovation and transparency. The creation of a Life Cycle Assessment (LCA) report and Environmental Product Declaration (EPD) allows us to continually improve our operations and illustrate a complete story behind our products.

To learn more, visit behr.com and kilz.com



In order to support comparative assertions, this EPD meets all comparability requirements stated in ISO 14025:2006. However, such 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, as the EPD results may not be entirely comparable. Any EPD comparison must be carried out at the building level per ISO 21930 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.

ENVIRONMENTAL PRODUCT DECLARATION



BEHR PREMIUM® Exterior Paint

According to ISO 14025,
and ISO21930

EPD PROGRAM AND PROGRAM OPERATOR NAME, ADDRESS, LOGO, AND WEBSITE	UL Solutions 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	Behr Process LLC 1801 E St Andrew Pl, Santa Ana, CA 92705	
DECLARATION NUMBER	4791080617.122.1	
DECLARED PRODUCT & FUNCTIONAL UNIT OR DECLARED UNIT	1m ² of covered and protected substrate for a period of 60 years with 97% opacity after drying	
REFERENCE PCR AND VERSION NUMBER	PCR for architectural coating: NAICS 325510, NSF (2022)	
DESCRIPTION OF PRODUCT APPLICATION/USE	Exterior Paint	
PRODUCT RSL DESCRIPTION (IF APPL.)	10 years market life and 10 years design life used over a 60 year estimated building life	
MARKETS OF APPLICABILITY	North America	
DATE OF ISSUE	September 9, 2024	
PERIOD OF VALIDITY	5 Years	
EPD TYPE	Product-specific	
RANGE OF DATASET VARIABILITY	N/A	
OVERALL DATA QUALITY ASSESSMENT SCORE	Very good	
EPD SCOPE	Cradle to grave	
YEAR(S) OF REPORTED PRIMARY DATA	2021	
LCA SOFTWARE & VERSION NUMBER	Sphera's LCA for Experts (fka GaBi) v10.7.0.183	
LCI DATABASE(S) & VERSION NUMBER	Sphera's Managed LCA Content (fka GaBi) 2023.1	
LCIA METHODOLOGY & VERSION NUMBER	IPCC AR5, TRACI 2.1, CML 2001 (2013)	
The PCR review was conducted by:	NSF International	
	PCR Review Panel	
	ncss@nsf.org	
This declaration was independently verified in accordance with ISO 14025: 2006. <input type="checkbox"/> INTERNAL <input checked="" type="checkbox"/> EXTERNAL	<i>Cooper McCollum</i> Cooper McCollum, UL Solutions	
	Sphera	
This life cycle assessment was conducted in accordance with ISO 14040/44 and the reference PCR by:		
This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:	<i>MWildnauer</i> Maggie Wildnauer, WAP Sustainability	

ENVIRONMENTAL PRODUCT DECLARATION



BEHR PREMIUM® Exterior Paint

According to ISO 14025,
ISO 21930

LIMITATIONS

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; the level of accuracy in estimation of effect differs for any particular product line and reported impact.

Comparability: EPDs from different programs may not be comparable. Full conformance with a PCR allows EPD comparability only when all stages of a life cycle have been considered. However, variations and deviations are possible". Example of variations: Different LCA software and background LCI datasets may lead to differences results for upstream or downstream of the life cycle stages declared.

ENVIRONMENTAL PRODUCT DECLARATION



BEHR PREMIUM® Exterior Paint



According to ISO 14025,
ISO 21930

1. Product Definition and Information

1.1. Description of Company/Organization

Founded in 1947, Behr Paint Company's unwavering commitment to quality, innovation, and value has helped foster their growth into one of the largest manufacturers of paints, primers, decorative finishes, stains, surface preparation and application products for DIYers and professionals in North America. With operations in the United States, Canada, and Mexico, this Santa Ana, California based company has worked diligently to deliver the quality brands, BEHR®, KILZ®, and WHIZZ® to meet the coating, color, and application needs of consumers, designers and professional paint contractors resulting in BEHR® becoming one of the most trusted brands in America. BEHR® paint delivers superior value at every price point so everyone can transform their space into the look they want, with the colors they love.

1.2. Product Description

Product Identification

BEHR PREMIUM® Exterior Paint is a high-quality paint that conceals imperfections. This finish is resistant to moisture, protects against all types of climates, and is resistant to discoloration and alkalinity. The water-based formula is designed to highlight multiple textured surfaces while giving a natural appearance. BEHR PREMIUM® Exterior Paint is GREENGUARD® GOLD certified offering a line of coatings that meet or exceed environmental and performance requirements. This product line includes: G260 Flat, G280 Satin and is available in gallon and 5-gallon sized containers. Tint bases are offered in: White and Deep, to allow custom tinting to a full range of colors.

Product Specification

Table 1. Specifications for BEHR PREMIUM® Exterior Paint

SKU	FILL / MAX TINT LOAD	GLOSS @ 60°	SHEEN @ 85°	RESIN TYPE	% SOLIDS BY VOLUME	% SOLIDS BY WEIGHT	FILM THICKNESS @ 250 SQ FT/GL	FILM THICKNESS @ 400 SQ FT/GL	VISCOSITY (KU)
G260	126 fl oz 4 fl oz	-	0 – 5	EVA	30.2% ± 2%	45.7% ± 2%	Wet: 6.4 mils Dry: 2.6 mils	Wet: 4.0 mils Dry: 1.6 mils	95 – 105
G263	116 fl oz 14 fl oz	-	0 – 5	EVA	30.2% ± 2%	45.7% ± 2%	Wet: 6.4 mils Dry: 2.6 mils	Wet: 4.0 mils Dry: 1.6 mils	95 – 105
G280	126 fl oz 4 fl oz	7 – 12	18 – 25	EVA	32.0% ± 2%	44.2% ± 2%	Wet: 6.4 mils Dry: 2.6 mils	Wet: 4.0 mils Dry: 1.6 mils	100 – 110
G283	116 fl oz 14 fl oz	7 – 12	18 – 25	EVA	32.0% ± 2%	44.2% ± 2%	Wet: 6.4 mils Dry: 2.6 mils	Wet: 4.0 mils Dry: 1.6 mils	100 – 110



ENVIRONMENTAL PRODUCT DECLARATION



BEHR PREMIUM® Exterior Paint



According to ISO 14025,
ISO 21930

1.3. Application

Recommended application information for BEHR PREMIUM® Exterior Paint is as follows:

Brush: Nylon/polyester

Roller: 3/8" – 1/2" nap cover on smooth surfaces and 1/2" – 3/4" on rough, porous surfaces

Airless Spray:

Tip: .015" - .021"

Filter: 60 mesh

Thinning: (If required) No more than ½ pint of water per gallon.

The VOC emissions associated with each SKU after application are all <0.22 mg/m³. The method used to determine this was the California Department of Public Health (CDPH) standard test method, a revised and expanded standard based on California Specification 01350. VOC content in g/L for each SKU is shown in Table 2.

Table 2. VOC content for each paint (g/L)

	G260	G263	G280	G283
VOC (g/L of paint)	47	31	17	21

1.4. Material Composition

The material composition of the paint in this product line is broken down by sheen and shown in Table 3 to Table 4.

Table 3. Material composition range in weight % for BEHR PREMIUM® Exterior Flat Paint

MATERIAL- FLAT	G260	G263
Resin/Binder	20 – 25%	25 – 30%
Additive	5 – 10%	5 – 10%
Biocide	1 – 3%	1 – 3%
Extender Pigment	25 – 30%	15 – 20%
Pigment (TiO ₂)	10 – 15%	-
Solvent	0.1 – 1%	-
Water	35 – 40%	40 – 45%





Table 4. Material composition range in weight % for BEHR PREMIUM® Exterior Satin Paint

MATERIAL- SATIN	G280	G283
Resin/Binder	35 – 40%	40 – 45%
Additive	1 – 5%	5 – 10%
Biocide	1 – 3%	1 – 3%
Extender Pigment	5 – 10%	10 – 15%
Pigment (TiO2)	15 – 20%	-
Water	25 – 30%	35 – 40%

1.5. Manufacturing

As shown in Figure 1, manufacturing begins with metering of raw materials, followed by the pre-mix, dispersion, and let-down steps. The finished paint is dispensed into cans, and/or pails, which are then labeled, boxed, and loaded onto pallets for distribution.

Flow Diagram

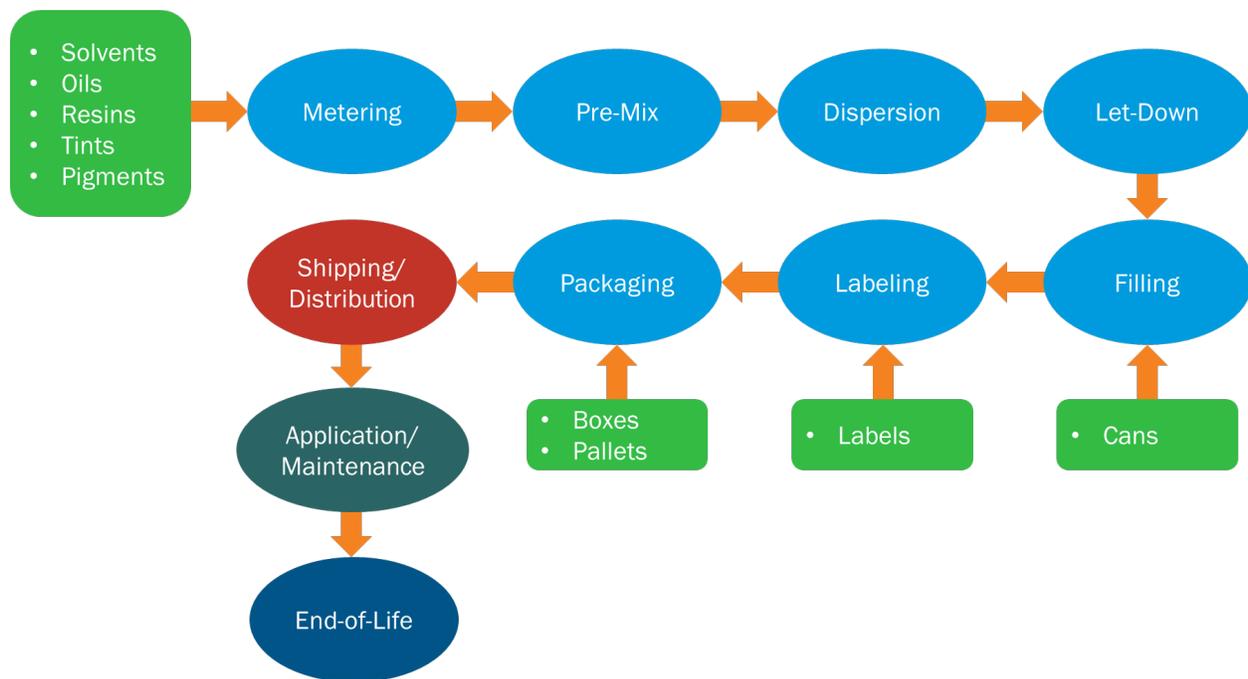


Figure 1. Flow diagram for cradle-to-grave LCA of BEHR PREMIUM® Exterior Paint





BEHR PREMIUM® Exterior Paint

According to ISO 14025,
ISO 21930

1.6. Packaging

Table 5 provides descriptions, volumes, and materials for the primary paint packaging used for BEHR PREMIUM® Exterior Paint. These packages are then placed in cardboard boxes and loaded onto heat-treated wooden pallets for distribution.

Table 5. Description of primary paint packaging

CONTAINER	VOLUME	MATERIAL
Can	Gallon	Polypropylene
Pail	5 Gallons	High Density Polyethylene

1.7. Transportation

Raw materials and packaging are transported to each of the production facilities via truck or rail. After production and packaging, the paint is sent to one of twelve distribution centers by truck before being trucked to individual The Home Depot stores. Weighted average distances are calculated for transportation from distribution centers to stores in seven different regions.

1.8. Product Installation and Use

The use stage begins when the user applies the product to a substrate. This stage does not require any energy or additional cleaning inputs, but includes the VOCs emitted during application and drying. The products included in the BEHR PREMIUM® Exterior Paint portfolio are considered low-VOC products.

1.9. Reference Service Life and Estimated Building Service Life

Table 6 shows the design lifetime for interior and exterior paints of different quality. The entire BEHR PREMIUM® Exterior Paint product line is considered mid-quality, and therefore has a design life of 10 years. Per the PCR, all results declared are calculated for a market life of 10 years. The estimated building life is 60 years per the PCR.





BEHR PREMIUM® Exterior Paint

According to ISO 14025,
ISO 21930

Table 6. Design lifetime of paints

COATING TYPE	LOW QUALITY	MID QUALITY	HIGH QUALITY	ALTERNATIVE
Interior Paint	3 years	7 years	15 years	N/A
Exterior Paint	5 years	10 years	20 years	Warranty

1.10. Reuse, Recycling, and Energy Recovery

The Home Depot stores encourage customers to use PaintCare or local paint recycling programs.

1.11. Disposal

Product end-of-life occurs with the disposal of the substrate material. 100% of the waste is disposed of in a landfill at the end-of-life stage and cannot be separated from the substrate before disposal. Packaging is recovered at a rate of 6.2% for plastics, 33.9% for metals, and 80.9% for paper and corrugated material. Recovery rates represent the average fractions of waste recovered in the US.

2. Life Cycle Assessment Background Information

2.1. Functional or Declared Unit

The functional unit for the study is:

Covering and protecting 1 m² of substrate for a period of 60 years (the assumed lifetime of a building), exhibiting 97% opacity after drying

The functional unit and reference flow required for the functional unit were calculated for both the market life and design life as prescribed by the PCR. Market life for exterior paints is 10 years. The design life is based on the quality as determined by ASTM test methods for scrub resistance (ASTM D2486 - 06(2012)e1), burnish (ASTM D6736 - 08(2013)), and washability (ASTM D4828 - 94(2012)e1) and is shown in Table 6. Lifetimes and reference flows for each sheen and base combination are shown in Table 7. Results were calculated for all base and sheen formulations.

For further technical information on BEHR PREMIUM® Exterior Paint, visit www.behr.com.





BEHR PREMIUM® Exterior Paint

According to ISO 14025,
ISO 21930

Table 7. Sheen, base, design life, market life, and reference flows for each paint product

SKU	SHEEN	BASE	DESIGN LIFETIME (YEARS)	MARKET LIFETIME (YEARS)	PAINT PER UNIT AREA (KG/M ²)	COLORANT PER UNIT AREA (KG/M ²)
G260	Flat	White	10	10	0.132	0.0047
G263	Flat	Deep	10	10	0.121	0.0159
G280	Satin	White	10	10	0.125	0.0047
G283	Satin	Deep	10	10	0.115	0.0159

2.2. System Boundary

The LCA was performed according to ISO 14040 standards. The system boundary is cradle-to-grave, and includes the following modules as defined in the PCR. The declaration covers the full range of BEHR PREMIUM® Exterior Paint sold in the North American market for the reference year 2021.

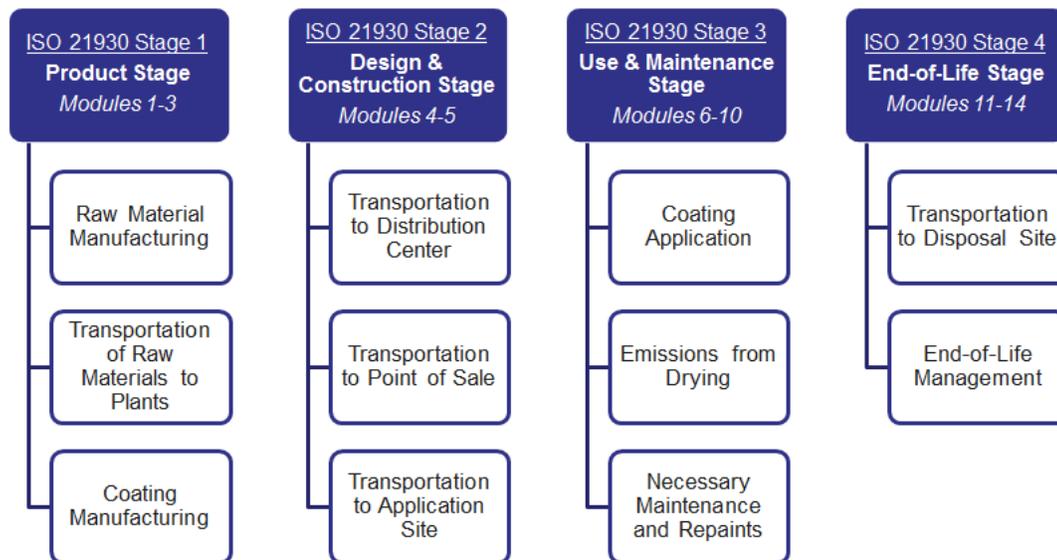


Figure 2. System boundaries for cradle to grave LCA





BEHR PREMIUM® Exterior Paint



According to ISO 14025,
ISO 21930

2.3. Estimates and Assumptions

The modeling approach makes assumptions that are prescribed by the PCR, such as in packaging disposal and recovery treatment, as well as transportation distances and use phase assumptions.

2.4. Cut-off Criteria

No cut-off criteria was defined by this study. For processes within the system boundary, all available energy and material flow data have been included in the model.

2.5. Data Sources and Quality

Primary data, for the 2021 reference year, was obtained from two of Behr's production facilities that produced BEHR PREMIUM® Exterior Paint which are located in Roanoke, TX and Santa Ana, CA. Background data was obtained from the GaBi 2023.1 database and is representative of the years 2012-2021. Overall, both primary and background data are representative of the product system and have been deemed very good quality.

2.6. Period under Review

The period under review is 2021.

2.7. Allocation

Manufacturing inputs for the two facilities were allocated to each paint product by volume.

3. Life Cycle Assessment Results

In accordance with the PCR, TRACI 2.1 impact characterization methodology is used to calculate the declared environmental impacts, except for global warming potential and abiotic resource depletion, which follow the methodology in the IPCC 5th assessment report, and CML, respectively (Table 8). Additional inventory metrics are also calculated per the guiding PCR. The declared impacts and inventory metrics are summarized in this section. The total LCIA results for design life and market life for each impact category are provided in Table 9 and Table 16, respectively.



ENVIRONMENTAL PRODUCT DECLARATION



BEHR PREMIUM® Exterior Paint

According to ISO 14025,
ISO 21930

Furthermore, the results of each impact category for each stage are presented in Table 10 to Table 15 and from Table 17 to Table 22. Additionally, the LCI results for each stage are presented for each product (both market life and design life). The total LCI results for each impact category are also mentioned in this section.

3.1. Life Cycle Impact Assessment Results

Table 8. Environmental impact categories for North America

PARAMETER	DESCRIPTION	LCIA METHOD	UNIT
GWP	Global warming potential, fossil	IPCCC AR5 (2013)	kg CO ₂ eq.
ODP	Stratospheric ozone layer depletion potential	TRACI 2.1	kg CFC 11 eq.
AP	Land and water acidification potential	TRACI 2.1	kg SO ₂ eq.
EP	Eutrophication potential	TRACI 2.1	kg N eq.
SFP	Tropospheric ozone photochemical oxidant (smog) formation potential	TRACI 2.1	kg O ₃ eq.
ADP _f	Abiotic resource potential for fossil resources	CML 2001	MJ

Table 9. Total LCIA results for each paint product, per 1 m² for 60 years by design life

SKU	GWP KG CO ₂ EQ.	AP KG SO ₂ EQ.	EP KG N EQ.	ODP KG CFC-11 EQ.	SFP KG O ₃ EQ.	ADP _f MJ
G260	1.12E+00	1.30E-02	3.55E-04	3.52E-14	4.08E-02	2.17E+01
G263	1.03E+00	2.14E-03	3.06E-04	2.74E-14	3.20E-02	2.33E+01
G280	1.54E+00	2.19E-02	4.05E-04	4.98E-14	5.54E-02	3.02E+01
G283	1.24E+00	2.59E-03	3.23E-04	3.41E-14	3.76E-02	2.84E+01

Table 10. GWP LCIA results for each paint product, per 1 m² for 60 years by design life (kg CO₂ eq.)

SKU	STAGE 1	STAGE 2	STAGE 3	STAGE 4	TOTAL
G260	8.62E-01	2.43E-01	0.00E+00	2.03E-02	1.12E+00
G263	6.20E-01	3.93E-01	0.00E+00	1.85E-02	1.03E+00
G280	1.29E+00	2.35E-01	0.00E+00	1.93E-02	1.54E+00
G283	8.37E-01	3.85E-01	0.00E+00	1.75E-02	1.24E+00



ENVIRONMENTAL PRODUCT DECLARATION



BEHR PREMIUM® Exterior Paint



According to ISO 14025,
ISO 21930

Table 11. AP LCIA results for each paint product, per 1 m² for 60 years by design life (kg SO₂ eq.)

SKU	STAGE 1	STAGE 2	STAGE 3	STAGE 4	TOTAL
G260	1.24E-02	4.69E-04	0.00E+00	9.56E-05	1.30E-02
G263	1.35E-03	7.02E-04	0.00E+00	8.74E-05	2.14E-03
G280	2.14E-02	4.51E-04	0.00E+00	9.04E-05	2.19E-02
G283	1.82E-03	6.86E-04	0.00E+00	8.29E-05	2.59E-03

Table 12. EP LCIA results for each paint product, per 1 m² for 60 years by design life (kg N eq.)

SKU	STAGE 1	STAGE 2	STAGE 3	STAGE 4	TOTAL
G260	1.30E-04	6.76E-05	0.00E+00	1.58E-04	3.55E-04
G263	9.08E-05	7.02E-05	0.00E+00	1.45E-04	3.06E-04
G280	1.91E-04	6.44E-05	0.00E+00	1.50E-04	4.05E-04
G283	1.18E-04	6.74E-05	0.00E+00	1.38E-04	3.23E-04

Table 13. ODP LCIA results for each paint product, per 1 m² for 60 years by design life (kg CFC-11 eq.)

SKU	STAGE 1	STAGE 2	STAGE 3	STAGE 4	TOTAL
G260	3.28E-14	1.66E-15	0.00E+00	6.58E-16	3.52E-14
G263	2.26E-14	4.23E-15	0.00E+00	6.03E-16	2.74E-14
G280	4.76E-14	1.64E-15	0.00E+00	6.12E-16	4.98E-14
G283	2.94E-14	4.19E-15	0.00E+00	5.64E-16	3.41E-14

Table 14. SFP LCIA results for each paint product, per 1 m² for 60 years by design life (kg O₃ eq.)

SKU	STAGE 1	STAGE 2	STAGE 3	STAGE 4	TOTAL
G260	3.07E-02	8.34E-03	3.72E-10	1.72E-03	4.08E-02
G263	2.07E-02	9.72E-03	3.72E-10	1.58E-03	3.20E-02
G280	4.58E-02	7.98E-03	3.72E-10	1.63E-03	5.54E-02
G283	2.67E-02	9.42E-03	3.72E-10	1.50E-03	3.76E-02



ENVIRONMENTAL PRODUCT DECLARATION



BEHR PREMIUM® Exterior Paint

According to ISO 14025,
ISO 21930

Table 15. ADP_f LCIA results for each paint product, per 1 m² for 60 years by design life (MJ)

SKU	STAGE 1	STAGE 2	STAGE 3	STAGE 4	TOTAL
G260	1.75E+01	4.16E+00	0.00E+00	5.58E-02	2.17E+01
G263	1.47E+01	8.47E+00	0.00E+00	5.14E-02	2.33E+01
G280	2.61E+01	4.05E+00	0.00E+00	4.12E-02	3.02E+01
G283	2.00E+01	8.35E+00	0.00E+00	3.96E-02	2.84E+01

Table 16. Total LCIA results for each paint product, per 1 m² for 60 years by market life

SKU	GWP KG CO ₂ EQ.	AP KG SO ₂ EQ.	EP KG N EQ.	ODP KG CFC 11 EQ.	SFP KG O ₃ EQ.	ADP _f MJ
G260	1.12E+00	1.30E-02	3.55E-04	3.52E-14	4.08E-02	2.17E+01
G263	1.03E+00	2.14E-03	3.06E-04	2.74E-14	3.20E-02	2.33E+01
G280	1.54E+00	2.19E-02	4.05E-04	4.98E-14	5.54E-02	3.02E+01
G283	1.24E+00	2.59E-03	3.23E-04	3.41E-14	3.76E-02	2.84E+01

Table 17. GWP LCIA results for each paint product, per 1 m² for 60 years by market life (kg CO₂ eq.)

SKU	STAGE 1	STAGE 2	STAGE 3	STAGE 4	TOTAL
G260	8.62E-01	2.43E-01	0.00E+00	2.03E-02	1.12E+00
G263	6.20E-01	3.93E-01	0.00E+00	1.85E-02	1.03E+00
G280	1.29E+00	2.35E-01	0.00E+00	1.93E-02	1.54E+00
G283	8.37E-01	3.85E-01	0.00E+00	1.75E-02	1.24E+00

Table 18. AP LCIA results for each paint product, per 1 m² for 60 years by market life (kg SO₂ eq.)

SKU	STAGE 1	STAGE 2	STAGE 3	STAGE 4	TOTAL
G260	1.24E-02	4.69E-04	0.00E+00	9.56E-05	1.30E-02
G263	1.35E-03	7.02E-04	0.00E+00	8.74E-05	2.14E-03
G280	2.14E-02	4.51E-04	0.00E+00	9.04E-05	2.19E-02
G283	1.82E-03	6.86E-04	0.00E+00	8.29E-05	2.59E-03



ENVIRONMENTAL PRODUCT DECLARATION



BEHR PREMIUM® Exterior Paint



According to ISO 14025,
ISO 21930

Table 19. EP LCIA results for each paint product, per 1 m² for 60 years by market life (kg N eq.)

SKU	STAGE 1	STAGE 2	STAGE 3	STAGE 4	TOTAL
G260	1.30E-04	6.76E-05	0.00E+00	1.58E-04	3.55E-04
G263	9.08E-05	7.02E-05	0.00E+00	1.45E-04	3.06E-04
G280	1.91E-04	6.44E-05	0.00E+00	1.50E-04	4.05E-04
G283	1.18E-04	6.74E-05	0.00E+00	1.38E-04	3.23E-04

Table 20. ODP LCIA results for each paint product, per 1 m² for 60 years by market life (kg CFC-11 eq.)

SKU	STAGE 1	STAGE 2	STAGE 3	STAGE 4	TOTAL
G260	3.28E-14	1.66E-15	0.00E+00	6.58E-16	3.52E-14
G263	2.26E-14	4.23E-15	0.00E+00	6.03E-16	2.74E-14
G280	4.76E-14	1.64E-15	0.00E+00	6.12E-16	4.98E-14
G283	2.94E-14	4.19E-15	0.00E+00	5.64E-16	3.41E-14

Table 21. SFP LCIA results for each paint product, per 1 m² for 60 years by market life (kg O₃ eq.)

SKU	STAGE 1	STAGE 2	STAGE 3	STAGE 4	TOTAL
G260	3.07E-02	8.34E-03	3.72E-10	1.72E-03	4.08E-02
G263	2.07E-02	9.72E-03	3.72E-10	1.58E-03	3.20E-02
G280	4.58E-02	7.98E-03	3.72E-10	1.63E-03	5.54E-02
G283	2.67E-02	9.42E-03	3.72E-10	1.50E-03	3.76E-02

Table 22. ADPf LCIA results for each paint product, per 1 m² for 60 years by market life (MJ)

SKU	STAGE 1	STAGE 2	STAGE 3	STAGE 4	TOTAL
G260	1.75E+01	4.16E+00	0.00E+00	5.58E-02	2.17E+01
G263	1.47E+01	8.47E+00	0.00E+00	5.14E-02	2.33E+01
G280	2.61E+01	4.05E+00	0.00E+00	4.12E-02	3.02E+01
G283	2.00E+01	8.35E+00	0.00E+00	3.96E-02	2.84E+01





BEHR PREMIUM® Exterior Paint



According to ISO 14025,
ISO 21930

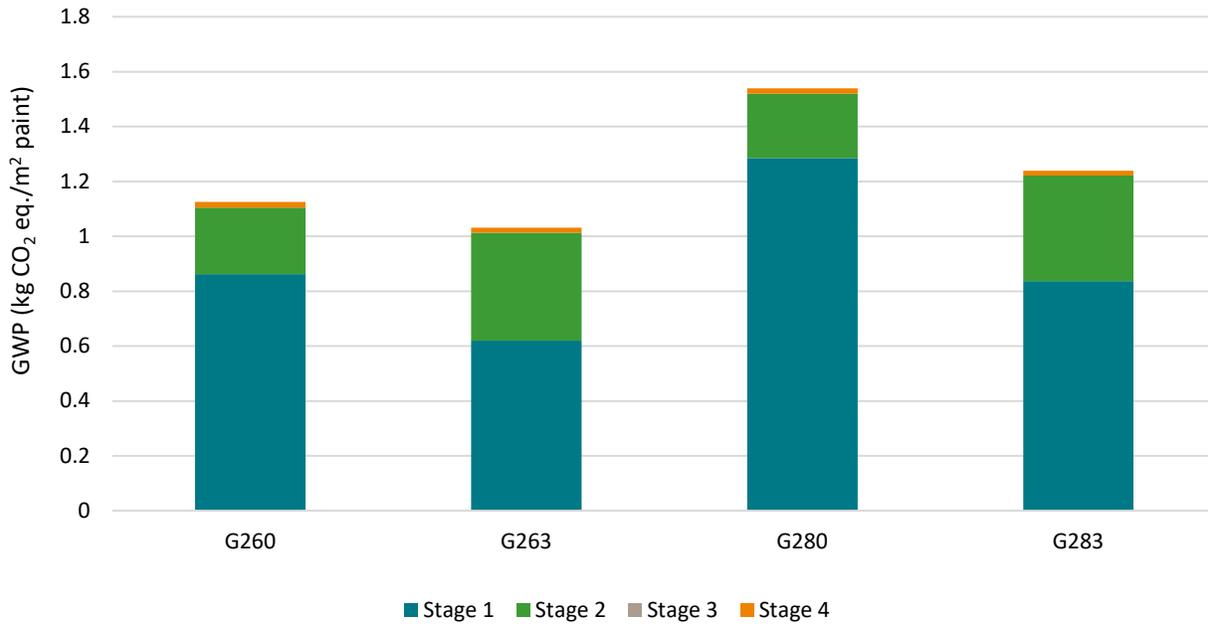


Figure 3: GWP results by stage by design life

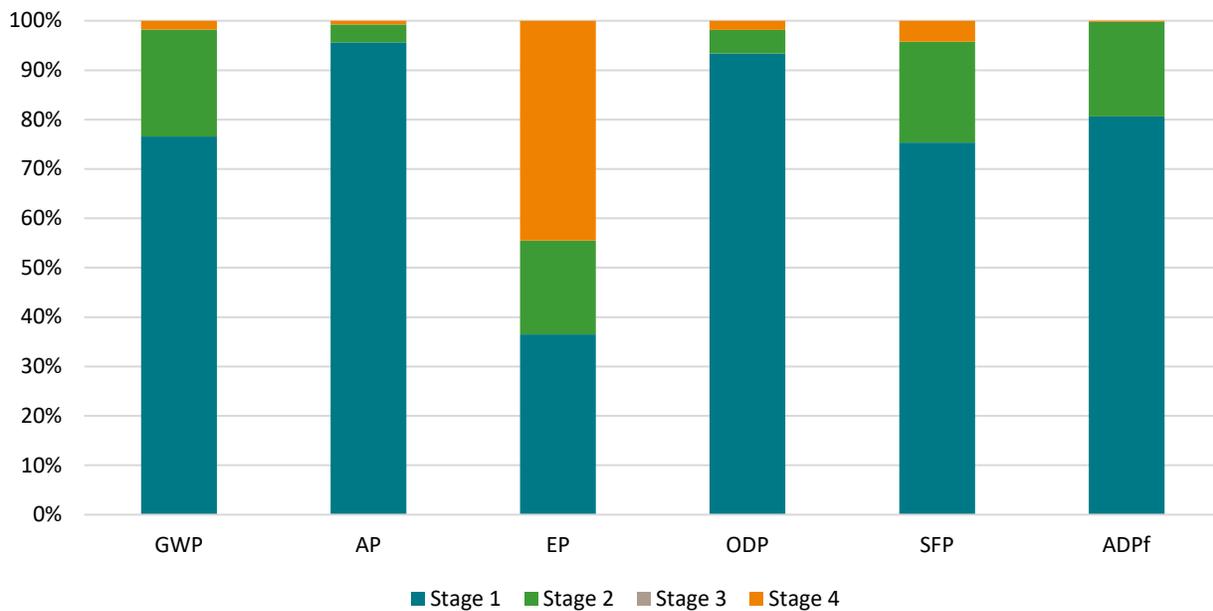


Figure 4: LCIA contribution results for G260





BEHR PREMIUM® Exterior Paint

According to ISO 14025,
ISO 21930

3.2. Life Cycle Inventory Results

Table 23. Total resource use results for each paint product, per 1 m² for 60 years by design life

SKU	RPR _E MJ	RPR _M MJ	NRPR _E MJ	NRPR _M MJ	SM KG	RSF MJ	NRSF MJ	RE MJ	FW M ³
G260	1.53E+00	9.47E-02	1.90E+01	3.79E+00	4.12E-04	0	0	0	6.41E-03
G263	1.26E+00	8.51E-02	2.05E+01	3.54E+00	3.88E-04	0	0	0	5.34E-03
G280	1.93E+00	9.42E-02	2.65E+01	5.07E+00	4.14E-04	0	0	0	8.88E-03
G283	1.57E+00	8.37E-02	2.48E+01	4.60E+00	3.92E-04	0	0	0	6.27E-03

Table 24. RPR_E results for each paint product, for their design life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	1.30E+00	1.94E-01	0.00E+00	3.05E-02	1.53E+00
G263	9.49E-01	2.88E-01	0.00E+00	2.81E-02	1.26E+00
G280	1.71E+00	1.87E-01	0.00E+00	2.87E-02	1.93E+00
G283	1.26E+00	2.81E-01	0.00E+00	2.66E-02	1.57E+00

Table 25. RPR_M results for each paint product, for their design life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	9.47E-02	0.00E+00	0.00E+00	0.00E+00	9.47E-02
G263	8.51E-02	0.00E+00	0.00E+00	0.00E+00	8.51E-02
G280	9.42E-02	0.00E+00	0.00E+00	0.00E+00	9.42E-02
G283	8.37E-02	0.00E+00	0.00E+00	0.00E+00	8.37E-02

Table 26. NRPR_E results for each paint product, for their design life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	1.47E+01	4.23E+00	0.00E+00	5.62E-02	1.90E+01
G263	1.18E+01	8.66E+00	0.00E+00	5.19E-02	2.05E+01
G280	2.24E+01	4.12E+00	0.00E+00	4.12E-02	2.65E+01
G283	1.62E+01	8.54E+00	0.00E+00	3.99E-02	2.48E+01



ENVIRONMENTAL PRODUCT DECLARATION



BEHR PREMIUM® Exterior Paint

According to ISO 14025,
ISO 21930

Table 27. NRPRm results for each paint product, for their design life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	3.79E+00	0.00E+00	0.00E+00	0.00E+00	3.79E+00
G263	3.54E+00	0.00E+00	0.00E+00	0.00E+00	3.54E+00
G280	5.07E+00	0.00E+00	0.00E+00	0.00E+00	5.07E+00
G283	4.60E+00	0.00E+00	0.00E+00	0.00E+00	4.60E+00

Table 28. SM results for each paint product, for their design life (kg)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	4.12E-04	0.00E+00	0.00E+00	0.00E+00	4.12E-04
G263	3.88E-04	0.00E+00	0.00E+00	0.00E+00	3.88E-04
G280	4.14E-04	0.00E+00	0.00E+00	0.00E+00	4.14E-04
G283	3.92E-04	0.00E+00	0.00E+00	0.00E+00	3.92E-04

Table 29. FW results for each paint product, for their design life (m³)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	5.22E-03	1.20E-03	0.00E+00	-2.06E-06	6.41E-03
G263	3.21E-03	2.13E-03	0.00E+00	-2.33E-06	5.34E-03
G280	7.72E-03	1.16E-03	0.00E+00	-4.03E-06	8.88E-03
G283	4.18E-03	2.09E-03	0.00E+00	-4.05E-06	6.27E-03

Table 30. Total Resource use results for each paint product, per 1 m² for 60 years by market life

SKU	RPR _E MJ	RPR _M MJ	NRPR _E MJ	NRPR _M MJ	SM KG	RSF MJ	NRSF MJ	RE MJ	FW M³
G260	1.53E+00	9.47E-02	1.90E+01	3.79E+00	4.12E-04	0	0	0	6.41E-03
G263	1.26E+00	8.51E-02	2.05E+01	3.54E+00	3.88E-04	0	0	0	5.34E-03
G280	1.93E+00	9.42E-02	2.65E+01	5.07E+00	4.14E-04	0	0	0	8.88E-03
G283	1.57E+00	8.37E-02	2.48E+01	4.60E+00	3.92E-04	0	0	0	6.27E-03





BEHR PREMIUM® Exterior Paint



According to ISO 14025,
ISO 21930

Table 31. RPRe results for each paint product, per 1 m² for 60 years by market life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	1.30E+00	1.94E-01	0.00E+00	3.05E-02	1.53E+00
G263	9.49E-01	2.88E-01	0.00E+00	2.81E-02	1.26E+00
G280	1.71E+00	1.87E-01	0.00E+00	2.87E-02	1.93E+00
G283	1.26E+00	2.81E-01	0.00E+00	2.66E-02	1.57E+00

Table 32. RPRm results for each paint product, per 1 m² for 60 years by market life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	9.47E-02	0.00E+00	0.00E+00	0.00E+00	9.47E-02
G263	8.51E-02	0.00E+00	0.00E+00	0.00E+00	8.51E-02
G280	9.42E-02	0.00E+00	0.00E+00	0.00E+00	9.42E-02
G283	8.37E-02	0.00E+00	0.00E+00	0.00E+00	8.37E-02

Table 33. NRPRe results for each paint product, per 1 m² for 60 years by market life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	1.47E+01	4.23E+00	0.00E+00	5.62E-02	1.90E+01
G263	1.18E+01	8.66E+00	0.00E+00	5.19E-02	2.05E+01
G280	2.24E+01	4.12E+00	0.00E+00	4.12E-02	2.65E+01
G283	1.62E+01	8.54E+00	0.00E+00	3.99E-02	2.48E+01

Table 34. NRPRm results for each paint product, per 1 m² for 60 years by market life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	3.79E+00	0.00E+00	0.00E+00	0.00E+00	3.79E+00
G263	3.54E+00	0.00E+00	0.00E+00	0.00E+00	3.54E+00
G280	5.07E+00	0.00E+00	0.00E+00	0.00E+00	5.07E+00
G283	4.60E+00	0.00E+00	0.00E+00	0.00E+00	4.60E+00

Table 35. SM results for each paint product, per 1 m² for 60 years by market life (kg)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	4.12E-04	0.00E+00	0.00E+00	0.00E+00	4.12E-04
G263	3.88E-04	0.00E+00	0.00E+00	0.00E+00	3.88E-04
G280	4.14E-04	0.00E+00	0.00E+00	0.00E+00	4.14E-04
G283	3.92E-04	0.00E+00	0.00E+00	0.00E+00	3.92E-04



ENVIRONMENTAL PRODUCT DECLARATION



BEHR PREMIUM® Exterior Paint

According to ISO 14025,
ISO 21930

Table 36. FW results for each paint product, per 1 m² for 60 years by market life (m³)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	5.22E-03	1.20E-03	0.00E+00	-2.06E-06	6.41E-03
G263	3.21E-03	2.13E-03	0.00E+00	-2.33E-06	5.34E-03
G280	7.72E-03	1.16E-03	0.00E+00	-4.03E-06	8.88E-03
G283	4.18E-03	2.09E-03	0.00E+00	-4.05E-06	6.27E-03

Table 37. Total output and waste results for each paint product, per 1 m² for 60 years by design life

SKU	HWD %	NHWD %
G260	0.08%	99.92%
G263	0.07%	99.93%
G280	0.08%	99.92%
G283	0.07%	99.93%

Table 38. Waste results for each paint product, per 1 m² for 60 years by design life

SKU	Waste	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	HWD	16.90%	0.00%	0.00%	0.00%	0.08%
	NHWD	83.10%	0.00%	0.00%	100.00%	99.92%
G263	HWD	15.43%	0.00%	0.00%	0.00%	0.07%
	NHWD	84.57%	0.00%	0.00%	100.00%	99.93%
G280	HWD	16.59%	0.00%	0.00%	0.00%	0.08%
	NHWD	83.41%	0.00%	0.00%	100.00%	99.92%
G283	HWD	14.63%	0.00%	0.00%	0.00%	0.07%
	NHWD	85.37%	0.00%	0.00%	100.00%	99.93%

Table 39. Total output and waste results for each paint product, per 1 m² for 60 years by market life

SKU	HWD %	NHWD %
G260	0.08%	99.92%
G263	0.07%	99.93%
G280	0.08%	99.92%
G283	0.07%	99.93%



ENVIRONMENTAL PRODUCT DECLARATION



BEHR PREMIUM® Exterior Paint

According to ISO 14025,
ISO 21930

Table 40. Waste results for each paint product, per 1 m² for 60 years by market life

SKU	Waste	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	HWD	16.90%	0.00%	0.00%	0.00%	0.08%
	NHWD	83.10%	0.00%	0.00%	100.00%	99.92%
G263	HWD	15.43%	0.00%	0.00%	0.00%	0.07%
	NHWD	84.57%	0.00%	0.00%	100.00%	99.93%
G280	HWD	16.59%	0.00%	0.00%	0.00%	0.08%
	NHWD	83.41%	0.00%	0.00%	100.00%	99.92%
G283	HWD	14.63%	0.00%	0.00%	0.00%	0.07%
	NHWD	85.37%	0.00%	0.00%	100.00%	99.93%

Table 41. Energy resource use results for each paint product, per 1 m² for 60 years by design life

SKU	BIO-ENERGY	FOSSIL ENERGY	HYDRO/WIND ENERGY	NUCLEAR ENERGY	OTHER ENERGY	NON-RENEWABLE RESOURCES	RENEWABLE RESOURCES
	MJ	MJ	MJ	MJ	MJ	KG	KG
G260	5.92E-09	2.17E+01	5.68E-01	1.03E+00	1.05E+00	6.00E-01	-1.02E-07
G263	5.51E-09	2.33E+01	4.46E-01	7.85E-01	9.04E-01	6.54E-01	-9.52E-08
G280	6.11E-09	3.02E+01	7.91E-01	1.44E+00	1.23E+00	8.19E-01	-1.04E-07
G283	5.63E-09	2.84E+01	5.59E-01	9.85E-01	1.10E+00	7.82E-01	-9.67E-08

Table 42. Bio-energy results for each paint product, per 1 m² for 60 years by design life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	5.21E-09	-5.23E-12	0.00E+00	7.15E-10	5.92E-09
G263	4.84E-09	-5.90E-12	0.00E+00	6.74E-10	5.51E-09
G280	5.39E-09	-5.00E-12	0.00E+00	7.18E-10	6.11E-09
G283	4.96E-09	-5.70E-12	0.00E+00	6.80E-10	5.63E-09

Table 43. Fossil energy results for each paint product, per 1 m² for 60 years by design life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	1.75E+01	4.16E+00	0.00E+00	5.58E-02	2.17E+01
G263	1.47E+01	8.47E+00	0.00E+00	5.14E-02	2.33E+01
G280	2.61E+01	4.05E+00	0.00E+00	4.12E-02	3.02E+01
G283	2.00E+01	8.35E+00	0.00E+00	3.96E-02	2.84E+01



ENVIRONMENTAL PRODUCT DECLARATION



BEHR PREMIUM® Exterior Paint



According to ISO 14025,
ISO 21930

Table 44. Hydro/ Wind energy results each paint product, per 1 m² for 60 years by design life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	5.25E-01	3.69E-02	0.00E+00	6.27E-03	5.68E-01
G263	3.47E-01	9.29E-02	0.00E+00	5.81E-03	4.46E-01
G280	7.49E-01	3.64E-02	0.00E+00	5.79E-03	7.91E-01
G283	4.62E-01	9.20E-02	0.00E+00	5.42E-03	5.59E-01

Table 45. Nuclear energy results for each paint product, per 1 m² for 60 years by design life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	9.56E-01	7.37E-02	0.00E+00	4.54E-04	1.03E+00
G263	5.95E-01	1.90E-01	0.00E+00	5.45E-04	7.85E-01
G280	1.37E+00	7.27E-02	0.00E+00	2.45E-05	1.44E+00
G283	7.97E-01	1.88E-01	0.00E+00	2.51E-04	9.85E-01

Table 46. Other energy results for each paint product, per 1 m² for 60 years by design life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	8.72E-01	1.57E-01	0.00E+00	2.42E-02	1.05E+00
G263	6.86E-01	1.95E-01	0.00E+00	2.23E-02	9.04E-01
G280	1.06E+00	1.50E-01	0.00E+00	2.30E-02	1.23E+00
G283	8.85E-01	1.89E-01	0.00E+00	2.12E-02	1.10E+00

Table 47. Non-renewable energy resource results each paint product, per 1 m² for 60 years by design life (kg)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	4.65E-01	1.33E-01	0.00E+00	1.64E-03	6.00E-01
G263	3.77E-01	2.75E-01	0.00E+00	1.49E-03	6.54E-01
G280	6.88E-01	1.30E-01	0.00E+00	1.22E-03	8.19E-01
G283	5.09E-01	2.71E-01	0.00E+00	1.15E-03	7.82E-01

Table 48. Renewable energy resource results for each paint product, per 1 m² for 60 years by design life (kg)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	2.32E-08	1.25E-11	0.00E+00	-1.25E-07	-1.02E-07
G263	2.27E-08	9.83E-11	0.00E+00	-1.18E-07	-9.52E-08
G280	2.22E-08	1.38E-11	0.00E+00	-1.26E-07	-1.04E-07
G283	2.24E-08	9.87E-11	0.00E+00	-1.19E-07	-9.67E-08



ENVIRONMENTAL PRODUCT DECLARATION



BEHR PREMIUM® Exterior Paint

According to ISO 14025,
ISO 21930

Table 49. Energy resource use results for each paint product, per 1 m² for 60 years by market life

SKU	BIO ENERGY	FOSSIL ENERGY	HYDRO/WIND ENERGY	NUCLEAR ENERGY	OTHER RENEWABLE ENERGY	NON-RENEWABLE ENERGY RESOURCES	RENEWABLE ENERGY RESOURCES
	MJ	MJ	MJ	MJ	MJ	KG	KG
G260	5.92E-09	2.17E+01	5.68E-01	1.03E+00	1.05E+00	6.00E-01	-1.02E-07
G263	5.51E-09	2.33E+01	4.46E-01	7.85E-01	9.04E-01	6.54E-01	-9.52E-08
G280	6.11E-09	3.02E+01	7.91E-01	1.44E+00	1.23E+00	8.19E-01	-1.04E-07
G283	5.63E-09	2.84E+01	5.59E-01	9.85E-01	1.10E+00	7.82E-01	-9.67E-08

Table 50. Bio-energy results for each paint product, per 1 m² for 60 years by market life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	5.21E-09	-5.23E-12	0.00E+00	7.15E-10	5.92E-09
G263	4.84E-09	-5.90E-12	0.00E+00	6.74E-10	5.51E-09
G280	5.39E-09	-5.00E-12	0.00E+00	7.18E-10	6.11E-09
G283	4.96E-09	-5.70E-12	0.00E+00	6.80E-10	5.63E-09

Table 51. Fossil energy results for each paint product, per 1 m² for 60 years by market life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	1.75E+01	4.16E+00	0.00E+00	5.58E-02	2.17E+01
G263	1.47E+01	8.47E+00	0.00E+00	5.14E-02	2.33E+01
G280	2.61E+01	4.05E+00	0.00E+00	4.12E-02	3.02E+01
G283	2.00E+01	8.35E+00	0.00E+00	3.96E-02	2.84E+01

Table 52. Hydro/ Wind energy results for each paint product, per 1 m² for 60 years by market life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	5.25E-01	3.69E-02	0.00E+00	6.27E-03	5.68E-01
G263	3.47E-01	9.29E-02	0.00E+00	5.81E-03	4.46E-01
G280	7.49E-01	3.64E-02	0.00E+00	5.79E-03	7.91E-01
G283	4.62E-01	9.20E-02	0.00E+00	5.42E-03	5.59E-01



ENVIRONMENTAL PRODUCT DECLARATION



BEHR PREMIUM® Exterior Paint

According to ISO 14025,
ISO 21930

Table 53. Nuclear energy results for each paint product, per 1 m² for 60 years by market life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	9.56E-01	7.37E-02	0.00E+00	4.54E-04	1.03E+00
G263	5.95E-01	1.90E-01	0.00E+00	5.45E-04	7.85E-01
G280	1.37E+00	7.27E-02	0.00E+00	2.45E-05	1.44E+00
G283	7.97E-01	1.88E-01	0.00E+00	2.51E-04	9.85E-01

Table 54. Other energy results for each paint product, per 1 m² for 60 years by market life (MJ)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	8.72E-01	1.57E-01	0.00E+00	2.42E-02	1.05E+00
G263	6.86E-01	1.95E-01	0.00E+00	2.23E-02	9.04E-01
G280	1.06E+00	1.50E-01	0.00E+00	2.30E-02	1.23E+00
G283	8.85E-01	1.89E-01	0.00E+00	2.12E-02	1.10E+00

Table 55. Non-renewable resource results for each paint product, per 1 m² for 60 years by market life (kg)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	4.65E-01	1.33E-01	0.00E+00	1.64E-03	6.00E-01
G263	3.77E-01	2.75E-01	0.00E+00	1.49E-03	6.54E-01
G280	6.88E-01	1.30E-01	0.00E+00	1.22E-03	8.19E-01
G283	5.09E-01	2.71E-01	0.00E+00	1.15E-03	7.82E-01

Table 56. Renewable resource results for each paint product, per 1 m² for 60 years by market life (kg)

SKU	Stage 1	Stage 2	Stage 3	Stage 4	Total
G260	2.32E-08	1.25E-11	0.00E+00	-1.25E-07	-1.02E-07
G263	2.27E-08	9.83E-11	0.00E+00	-1.18E-07	-9.52E-08
G280	2.22E-08	1.38E-11	0.00E+00	-1.26E-07	-1.04E-07
G283	2.24E-08	9.87E-11	0.00E+00	-1.19E-07	-9.67E-08





BEHR PREMIUM® Exterior Paint

According to ISO 14025,
ISO 21930

4. Additional Environmental Information

4.1. Environmental Activities and Certifications



GREENGUARD Certification

BEHR PREMIUM® Exterior Paint products are GREENGUARD and GREENGUARD Gold Certified. This third-party certification assures our paints are low-emitting and contribute to healthy indoor environments.

GREENGUARD Certification establishes acceptable indoor air standards for indoor products, environments, and buildings. GREENGUARD Gold Certification offers stricter certification criteria, considers safety factors to account for sensitive individuals (such as children and the elderly), and ensures that a product is acceptable for use in environments such as schools and healthcare facilities.

GREENGUARD certified products are referenced standards in numerous sustainable building initiatives including Leadership in Energy and Environmental Design (LEED®), Collaborative for High Performance Schools (CHPS), Green Guide for Health Care (GGHC), Sustainable Building Industry Council (SBIC) and many others. For more information on the GREENGUARD Certification Program emission standards visit greenguard.org.

4.2. Further Information

For further information visit behr.com and kilz.com.

5. References

LCA EF 2023	Sphera Solutions Inc; Life Cycle Assessment for Experts: Software-System and Database for Life Cycle Engineering. Chicago, IL, USA, 1992-2023. https://sphera.com/life-cycle-assessment-lca-database/
IPCC 2013	IPCC. (2013). <i>Climate Change 2013: The Physical Science Basis</i> . Genf, Schweiz: IPCC.
ISO 14025	ISO 14025:2011-10 Environmental labels and declarations - Type III environmental declarations - Principles and procedures
ISO 14040	ISO 14040:2009-11 Environmental management - Life cycle assessment - Principles and framework
ISO 14044	ISO 14044:2006-10 Environmental management - Life cycle assessment - Requirements and guidelines
NSF 2015	NSF. (2015). <i>Product Category Rule (PCR) for Architectural Coatings</i> . USA: NSF: https://d2evkimvhatqav.cloudfront.net/documents/pcr_architectural_coatings_2022_ext.pdf?v=1657221





BEHR PREMIUM® Exterior Paint

According to ISO 14025,
ISO 21930

[210](#)

- USEPA 2012 NUS Environmental Protection Agency. (2012). *Tool for the Reduction and Assessment of Chemical and other Environmental Impacts (TRACI) – User's Manual*. Washington, D.C.: U.S. EPA.
- USEPA 2020 US Environmental Protection Agency. (2015, June). *Advancing Sustainable Materials Management: 2018 Tables and Figures. Assessing Trends in Material Generation, Recycling and Disposal in the United States*. Retrieved from US EPA: https://www.epa.gov/sites/default/files/2021-01/documents/2018_tables_and_figures_dec_2020_fnl_508.pdf

6. Contact Information

6.1. Study Commissioner

Behr Paint Company

Phone number: (714) 545-7101

Email: kbird@behr.com

1801 E. St. Andrew Place, Santa Ana, CA 92705

www.behr.com



6.2. LCA Practitioner

Sphera Solutions Inc.

servicequality@sphera.com

130 E Randolph St #2900. Chicago, IL 6060

www.sphera.com

