

# Product Verification

## Sustainability

according to LEED Building Design and Construction V4 (2015)

### Product Systems

#### Rubber EPDM

Q-railing Europe GmbH & Co. KG

Components of guardrail.





#### Product Assessment

#### Materials and Resources

Environmental Product Declaration

## Criteria Product Verification

MR Credit Life-Cycle Impact Reduction - Option 4: Whole-Building Life-Cycle Assessment

MR Credit BPDO - Environmental Product Declaration - Option 1:

o % weighted value

MR Credit BPDO - Environmental Product Declaration - Option 2: Multi-Attribute Optimization

o % weighted value



MR Credit BPDO - Sourcing of Raw Materials - Option 1: Raw Material Source and Extraction Reporting	o % weighted value
MR Credit BPDO - Sourcing of Raw Materials - Option 2: Leadership Extraction Practices	50 % weighted value
MR Credit BPDO - Material Ingredients - Option 1: Material Ingredient Reporting	o % weighted value
MR Credit BPDO - Material Ingredients - Option 2: Material Ingredient Optimization	100 % weighted value
MR Credit BPDO - Material Ingredients - Option 3: Product Manufacturer Supply Chain Optimization	o % weighted value
Location Valuation Factor	No

### Indoor Environmental Quality

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è	rificat

EQ Credit Low-Emitting Materials (except Healthcare and Schools)	No
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Legend: yes = Product contributes toward satisfying the credit, N/A = Product not relevant in the credit, no = Credit requirements are not proven

#### Summary

#### The product contributes to the certification:

- The product has an Environmental Product Declaration (EPD), which can be used to calculate the building life cycle assessment under LEED MR Building Life-Cycle Impact Redcutions - Option 4: Whole-Building Life-Cycle Assessment: EPD available: No
- Weighted Product Value on Credit BPDO Environmental Product Declaration Option 1: Environmental Product Declaration: o % weighted value
- Weighted Product Value on Credit BPDO Environmental Product Declaration Option 2: Multi-Attribute Optimization: o % weighted value
- Weighted Product Value on Credit BPDO Sourcing of Raw Materials Option 1: Raw Material Source and Extraction Reporting: o % weighted value
- Weighted Product Value on Credit BPDO Sourcing of Raw Materials Option 2: Leadership Extraction Practices: 50 % weighted value
- Weighted Product Value on Credit BPDO Material Ingredients Option 1: Material Ingredient Reporting: o % weighted value
- Weighted Product Value on Credit BPDO Material Ingredients Option 2: Material Ingredient Optimization: 100 % weighted value
- Weighted Product Value on Credit BPDO Material Ingredients Option 3: Supply Chain Optimization: o % weighted value



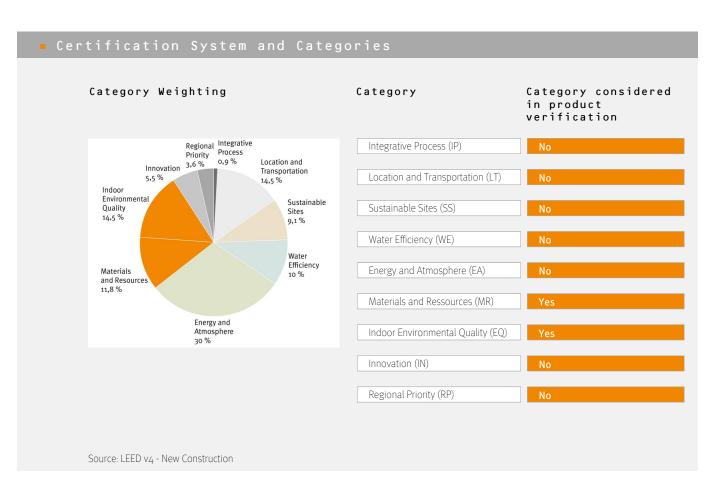
Q-railing Europe GmbH & Co. KG

- Information for Location Valuation Factor is available: No
- The entire product contributes toward satisfying EQ Credit: Low-Emitting Materials: No



This verification is the evaluation and ranking of products in terms of the certification system LEED version 4 (Building Design and Construction). The USGBC (U.S. Green Building Council) generally does not certify products. Therefore the project team or the manufacturer is responsible to declare compliance with respect to the LEED criteria. Notice: This verification is generated by the Assessment Service of BMS. The distribution or publication by third parties is not permitted. The data sheet is not a LEED certification document. The information is based on the manufacturer's specifications. Despite a diligent treatment of all information BMS can not make any warranties about the completeness, reliability and accuracy of this information. The requirements of LEED can be interpreted differently and depend on the project and scope of application. Therefore, BMS cannot accept any liability for the evaluation in terms of the LEED criteria. The user of the data sheet, the user / purchaser of the product and the consultant / planner, who is advising on this product has the duty to check the product for the intended application at their own responsibility. When a new version of this product verification is produced, the previous version loses its validity.

Source: www.usgbc.org





## Detailed Verification

according to LEED Building Design and Construction V4 (2015)

- Ma		
- Pia	terials and Resources	
	Credit Life-Cycle Impact Reduction fe-Cycle Assessment	- Option 4: Whole-Building
	The product has an Environmental Product Declaration (EPD), wh assessment under LEED MR Building Life-Cycle Impact Redcution	
	Rubber EPDM	EPD available: No
	An environmental product declaration exists for the product:	
	Rubber EPDM	No
	Rubber El Bill	
	Credit BPDO - Environmental Product vironmental Product Declaration	t Declaration - Option 1:
	William Lavid Collegen Co.	
	Weighted Product Value on Credit BPDO - Environmental Product	Declaration - Option 1: Environmental Product
	Declaration:	
	Rubber EPDM	o % weighted value
	An environmental product declaration exists for the product:	
	Rubber EPDM	No
	Rubbel El Divi	110
	Rubbel Li Dili	NO
	Credit BPDO - Environmental Product	
	Credit BPDO - Environmental Product	t Declaration - Option 2:
	Credit BPDO - Environmental Product lti-Attribute Optimization  Weighted Product Value on Credit BPDO - Environmental Product	Declaration - Option 2: t Declaration - Option 2: Multi-Attribute Optimization:
	Credit BPDO - Environmental Product lti-Attribute Optimization	t Declaration - Option 2:
	Credit BPDO - Environmental Product lti-Attribute Optimization Weighted Product Value on Credit BPDO - Environmental Product Rubber EPDM	Declaration - Option 2: t Declaration - Option 2: Multi-Attribute Optimization:
	Credit BPDO - Environmental Product Lti-Attribute Optimization  Weighted Product Value on Credit BPDO - Environmental Product Rubber EPDM  An environmental product declaration exists for the product:	t Declaration — Option 2: t Declaration - Option 2: Multi-Attribute Optimization:
	Credit BPDO - Environmental Product lti-Attribute Optimization Weighted Product Value on Credit BPDO - Environmental Product Rubber EPDM	Declaration - Option 2: t Declaration - Option 2: Multi-Attribute Optimization:
	Credit BPDO - Environmental Product Lti-Attribute Optimization  Weighted Product Value on Credit BPDO - Environmental Product Rubber EPDM  An environmental product declaration exists for the product:	t Declaration — Option 2: t Declaration - Option 2: Multi-Attribute Optimization:
Mu MR	Credit BPDO - Environmental Product Lti-Attribute Optimization  Weighted Product Value on Credit BPDO - Environmental Product Rubber EPDM  An environmental product declaration exists for the product:	t Declaration - Option 2:  t Declaration - Option 2: Multi-Attribute Optimization:  o % weighted value  No  rials - Option 1: Raw
Mu MR	Credit BPDO - Environmental Product lti-Attribute Optimization  Weighted Product Value on Credit BPDO - Environmental Product Rubber EPDM  An environmental product declaration exists for the product: Rubber EPDM  Credit BPDO - Sourcing of Raw Mater	t Declaration - Option 2:  t Declaration - Option 2: Multi-Attribute Optimization:  o % weighted value  No  rials - Option 1: Raw ing
Mu MR	Credit BPDO - Environmental Product Lti-Attribute Optimization  Weighted Product Value on Credit BPDO - Environmental Product Rubber EPDM  An environmental product declaration exists for the product: Rubber EPDM  Credit BPDO - Sourcing of Raw Mater terial Source and Extraction Reporti  Weighted Product Value on Credit BPDO - Sourcing of Raw Mater Reporting:	Declaration — Option 2:  t Declaration - Option 2: Multi-Attribute Optimization:  o% weighted value  No  Pials — Option 1: Raw  ing  ials - Option 1: Raw Material Source and Extraction
Mu MR	Credit BPDO - Environmental Product Lti-Attribute Optimization  Weighted Product Value on Credit BPDO - Environmental Product Rubber EPDM  An environmental product declaration exists for the product: Rubber EPDM  Credit BPDO - Sourcing of Raw Mater terial Source and Extraction Reporti	t Declaration - Option 2:  t Declaration - Option 2: Multi-Attribute Optimization:  o % weighted value  No  rials - Option 1: Raw ing
Mu MR	Credit BPDO - Environmental Product Lti-Attribute Optimization  Weighted Product Value on Credit BPDO - Environmental Product Rubber EPDM  An environmental product declaration exists for the product: Rubber EPDM  Credit BPDO - Sourcing of Raw Mater terial Source and Extraction Reporti  Weighted Product Value on Credit BPDO - Sourcing of Raw Mater Reporting: Rubber EPDM	Declaration - Option 2:  Declaration - Option 2: Multi-Attribute Optimization:  o % weighted value  No  Pials - Option 1: Raw ing  pials - Option 1: Raw Material Source and Extraction  o % weighted value
Mu MR	Credit BPDO - Environmental Product Lti-Attribute Optimization  Weighted Product Value on Credit BPDO - Environmental Product Rubber EPDM  An environmental product declaration exists for the product: Rubber EPDM  Credit BPDO - Sourcing of Raw Mater terial Source and Extraction Reporti  Weighted Product Value on Credit BPDO - Sourcing of Raw Mater Reporting:	Declaration - Option 2:  Declaration - Option 2: Multi-Attribute Optimization:  o % weighted value  No  Pials - Option 1: Raw ing  pials - Option 1: Raw Material Source and Extraction  o % weighted value



MR Credit BPDO - Sourcing of Raw Materials - Option 2: Leadership Extraction Practices

Weighted Product Value on Credit BPDO -	Sourcing of Raw Materials - Option 2: Leadership Extraction Practices:
Rubber EPDM	50 % weighted value
Extended producer responsibility	
Content of materials for a closed-loop recy	ycling or take-back programm in the entire product:
Rubber EPDM	100 %
	ites in an extended producer responsibility program or is directly nsibility (closed-loop recycling program or product take-back program):
Rubber EPDM	Yes
product? Otherwise it will be automaticall your product, we recommend that you ent	ials for a closed-loop recycling or take-back programm for the entire ly calculated from the components. If you do not have any components for the entire the content of materials for the entire product:
Rubber EPDM	Yes
Content of materials for a closed-loop recy	ycling or take-back programm:
Rubber EPDM	100 %
Content of SAN-certified bio-based materi	·
Rubber EPDM	o %
Wood products	
Content of FSC-certified wood-based mate	erials in the entire product:
Rubber EPDM	o %
Materials reuse	
Content of salvaged, refurbished, or reuse	ed products or materials in the entire product:
Rubber EPDM	o %
Recycled content	
Creditable recycled content according to L	.EED for the entire product:
Rubber EPDM	o %
Postconsumer recycled content for the en	tire product:
Rubber EPDM	0 %



Do you want to enter the recycled content for the entire product? Otherwise it will be automatically calculated from the components. If you do not have components for your product, we recommend that you enter the recycling percentage for the entire product here:

percentage for the entire product here.	
Rubber EPDM	Yes
Postconsumer recycled content of product (creditable):	
Rubber EPDM	0 %
Postconsumer recycled content of the product:	
Rubber EPDM	0 %
Postconsumer recycled content for steel according to LEED:	
Rubber EPDM	0 %
The man divid to me do a finite of	
The product is made of steel:	No
Rubber EPDM	No
Preconsumer recycled content of the product:	
Rubber EPDM	0 %
Rubbei Li Din	0.70
Preconsumer recycled content for the entire product:	
Rubber EPDM Credit BPDO - Material Ingredients .	o% - Option 1: Material
Rubber EPDM Credit BPDO - Material Ingredients · redient Reporting	- Option 1: Material
Rubber EPDM  Credit BPDO - Material Ingredients - redient Reporting  Weighted Product Value on Credit BPDO - Material Ingredients - O	<ul><li>Option 1: Material</li><li>ption 1: Material Ingredient Reporting:</li></ul>
Rubber EPDM Credit BPDO - Material Ingredients · redient Reporting	- Option 1: Material
Rubber EPDM  Credit BPDO - Material Ingredients - redient Reporting  Weighted Product Value on Credit BPDO - Material Ingredients - O Rubber EPDM  A manufacturer inventory with all ingredients (to at least 0.1 %) id	- Option 1: Material  ption 1: Material Ingredient Reporting:  o% weighted value  lentified by CASRN exists for the product:
Rubber EPDM  Credit BPDO - Material Ingredients - redient Reporting  Weighted Product Value on Credit BPDO - Material Ingredients - O  Rubber EPDM	Option 1: Material ption 1: Material ption 1: Material Ingredient Reporting: o % weighted value
Rubber EPDM  Credit BPDO - Material Ingredients redient Reporting  Weighted Product Value on Credit BPDO - Material Ingredients - O Rubber EPDM  A manufacturer inventory with all ingredients (to at least 0.1 %) id Rubber EPDM	- Option 1: Material  ption 1: Material Ingredient Reporting:  o% weighted value  lentified by CASRN exists for the product:
Rubber EPDM  Credit BPDO - Material Ingredients - redient Reporting  Weighted Product Value on Credit BPDO - Material Ingredients - O Rubber EPDM  A manufacturer inventory with all ingredients (to at least o.1 %) id Rubber EPDM  A Health Product Declaration (HPD) exists for the product:	- Option 1: Material  ption 1: Material Ingredient Reporting:  o% weighted value  lentified by CASRN exists for the product:
Rubber EPDM  Credit BPDO - Material Ingredients redient Reporting  Weighted Product Value on Credit BPDO - Material Ingredients - O Rubber EPDM  A manufacturer inventory with all ingredients (to at least 0.1 %) id Rubber EPDM	- Option 1: Material  ption 1: Material Ingredient Reporting:  o% weighted value  lentified by CASRN exists for the product:
Rubber EPDM  Credit BPDO - Material Ingredients redient Reporting  Weighted Product Value on Credit BPDO - Material Ingredients - O Rubber EPDM  A manufacturer inventory with all ingredients (to at least 0.1 %) id Rubber EPDM  A Health Product Declaration (HPD) exists for the product: Rubber EPDM	- Option 1: Material  ption 1: Material Ingredient Reporting:  o % weighted value  lentified by CASRN exists for the product:  No
Credit BPDO - Material Ingredients redient Reporting  Weighted Product Value on Credit BPDO - Material Ingredients - O Rubber EPDM  A manufacturer inventory with all ingredients (to at least 0.1 %) id Rubber EPDM  A Health Product Declaration (HPD) exists for the product: Rubber EPDM  Certified according Declare - all ingredients have been evaluated a	- Option 1: Material  ption 1: Material Ingredient Reporting:  o % weighted value  lentified by CASRN exists for the product:  No  No  No  and disclosed down to 0,1 % = 1000 ppm:
Rubber EPDM  Credit BPDO - Material Ingredients redient Reporting  Weighted Product Value on Credit BPDO - Material Ingredients - O Rubber EPDM  A manufacturer inventory with all ingredients (to at least 0.1 %) id Rubber EPDM  A Health Product Declaration (HPD) exists for the product: Rubber EPDM	- Option 1: Material  ption 1: Material Ingredient Reporting:  o % weighted value  lentified by CASRN exists for the product:  No
Credit BPDO - Material Ingredients redient Reporting  Weighted Product Value on Credit BPDO - Material Ingredients - O Rubber EPDM  A manufacturer inventory with all ingredients (to at least 0.1 %) id Rubber EPDM  A Health Product Declaration (HPD) exists for the product: Rubber EPDM  Certified according Declare - all ingredients have been evaluated a Rubber EPDM	- Option 1: Material  ption 1: Material Ingredient Reporting:  o % weighted value  lentified by CASRN exists for the product:  No  No  No  and disclosed down to 0,1 % = 1000 ppm:
Rubber EPDM  Credit BPDO - Material Ingredients redient Reporting  Weighted Product Value on Credit BPDO - Material Ingredients - OR  Rubber EPDM  A manufacturer inventory with all ingredients (to at least 0.1%) id  Rubber EPDM  A Health Product Declaration (HPD) exists for the product:  Rubber EPDM  Certified according Declare - all ingredients have been evaluated at Rubber EPDM  Certified according Product Lens:	- Option 1: Material  ption 1: Material Ingredient Reporting:  o % weighted value  dentified by CASRN exists for the product:  No  No  No  No  No  No
Credit BPDO - Material Ingredients redient Reporting  Weighted Product Value on Credit BPDO - Material Ingredients - O  Rubber EPDM  A manufacturer inventory with all ingredients (to at least 0.1 %) id  Rubber EPDM  A Health Product Declaration (HPD) exists for the product:  Rubber EPDM  Certified according Declare - all ingredients have been evaluated a	- Option 1: Material  ption 1: Material Ingredient Reporting:  o % weighted value  lentified by CASRN exists for the product:  No  No  No  and disclosed down to 0,1 % = 1000 ppm:
Credit BPDO — Material Ingredients redient Reporting  Weighted Product Value on Credit BPDO - Material Ingredients - O Rubber EPDM  A manufacturer inventory with all ingredients (to at least o.1 %) id Rubber EPDM  A Health Product Declaration (HPD) exists for the product: Rubber EPDM  Certified according Declare - all ingredients have been evaluated a Rubber EPDM  Certified according Product Lens:	- Option 1: Material  ption 1: Material Ingredient Reporting:  o % weighted value  lentified by CASRN exists for the product:  No  No  No  No  No  No  No



Assessed according ANSI/BIFMA e3 Furniture Sustainability standard - Product earned at least 3 points under 7.5.1.3 Advanced Level in e3-2014 or 3 points under 7.4.1.3 Advanced Level in e3-2012:

Rubber EPDM	No
Certified with Cradle to Cradle:	
Rubber EPDM	No
RUDDET EPDM	INO
Cradle to Cradle Standard Version:	
Rubber EPDM	noentry
Cradle to Cradle Level:	
Rubber EPDM	noentry
Certified with Cradle to Cradle Material Health:	
Rubber EPDM	No
Cradle to Cradle Material Health Level:	
Rubber EPDM	noentry
For Cradle to Cradle Material Health are at least 90% of materials	assessed by weight:
Rubber EPDM	No
Credit BPDO - Material Ingredients predient Optimization	- Option 2: Material
Weighted Product Value on Credit BPDO - Material Ingredients - C	Option 2: Material Ingredient Optimization:
Rubber EPDM	100 % weighted value
SVHC according REACH < 0,01 % (100 ppm):	
Rubber EPDM	Yes
Rubbel El Dill	103
The Product have fully inventoried chemical ingredients to 100 pp	om and no Benchmark 1 hazard according to
GreenScreen v1.2 Benchmark. The product is assessed with "Green value".	_
Rubber EPDM	No
The Product have fully inventoried chemical ingredients to 100 pp	om and no Benchmark 1 hazard according to
GreenScreen v1.2 Benchmark. The product is assessed with "Greens and the second of the	enScreen Assessment":
Rubber EPDM	No
Certified with Cradle to Cradle:	
Dubban FDDM	No
Rubber EPDM	INO
	INO
Cradle to Cradle Standard Version:  Rubber EPDM	noentry

noentry



Q-railing Europe GmbH & Co. KG

Cradle	to	Cradle	Level:

Rubber EPDM

Rubber EPDM	o % weighted value
Manufacturer is certified according ISO 14001 - E	nvironmental Management System:
Rubber EPDM	No
Manufacturer is certified according OHSAS 1800 Rubber EPDM	o - Health and Safety Management System:
<del>-</del>	, -
<del>-</del>	No

MR Credit BPDO - Material Ingredients - Option 3: Product

Place of purchase incl. distribution (e.g. D-70563 Stuttgart):

Place of manufacture (e.g. D-70563 Stuttgart):

**Rubber EPDM** 

Rubber EPDM -

The distance between place of raw material extraction and manufacture is less than 100 miles/160 km:

Rubber EPDM No

#### Indoor Environmental Quality

#### EQ Credit Low-Emitting Materials (except Healthcare and Schools)

The entire product contributes toward satisfying EQ Credit: Low-Emitting Materials:

Rubber EPDM No

The product contributes toward satisfying EQ Credit 4: Low-Emitting Materials:

Rubber EPDM No

Ceilings, walls, thermal, and acoustic insulation

The entire product contributes toward satisfying EQ Credit 4: Low Emitting Materials, Category Ceilings, walls, thermal, and acoustic insulation:

Rubber EPDM No



The product contributes toward satisfying EQ Credit 4: Low Emitting Materials, Category Ceilings, walls, thermal, and acoustic insulation:

Rubber EPDM No
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The product is a ceiling, wall, acoustic or thermal insulation material:

Rubber FPDM	Ves





### Q-railing Europe GmbH & Co. KG

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