

102 Camley street, London
Material Appraisal Form (MAF)
MAF No.: SK-MAF-DOOR AUTOMATIC
Rev. 1

Prepared by: Vitalijs Ragina
Approved by: Imants Leitis
Company: Skonto Enterprises UK
Dated: 08.06.2017

01	Vitalijs Ragina	Imants Leitis	08.06.2017
Revision	Prepared by	Approved by	Date

Project: 102 Camley street, London	MAF No.: SK-MAF-DOOR AUTOMATIC
Recipient: Powel Dobson Architects	

Please appraise the following materials which are proposed to be incorporated into our works:

Material/Description
Geze powerturn automatic for Type14 and GF doors
Compliance with specification: <input checked="" type="checkbox"/> Fully Compliant <input type="checkbox"/> Partly compliant (comments below)
Appendices
1. Product Declaration - DGNB New Construction Office and Administration Buildings (NBV12)
2. Product Declaration - LEED® 2009 New Construction And Major Renovations NC & CS

Please approve these materials and confirm that our proposed application is acceptable. Please do it at your earliest convenience but certainly within 10 working days of the submittal.

Filled by recipients' representative

The above materials are: Accepted (A) / Accepted with comments (B) / Not accepted (C)

Comments	
Approved by (name/last name): _____ Position: _____ Company: Powel Dobson Architects	Date:

Product Declaration - DGNB New Construction Office and Administration Buildings (NBV12)

MANUFACTURER	GEZE GmbH
PRODUCT NAME	Automatic swing door drive family Powerturn

Product Characteristics

Low-noise electromechanical swing door drive for internal and external doors (single or double leaf, 70 mm overall height, with hold-open mechanism in accordance with DIN 18 263 Part 4, prepared for connection to release device, with adjustable spring force EN size 4-7, tested and certified in accordance with DIN 18650 and EN16005. Due to Smart swing function suitable to open doors manually without great effort (DIN 18040 optimized) with intelligent digital control (Category 2 in accordance with DIN EN 954-1 and Performance Level "d" in accordance with DIN EN ISO 13849-1). The product supports all 6 installation types, is available in 2 standard and each RAL color.

The product classification is only valid for versions with water-dilutable coating.

Product Rating

- The product meets the requirements of quality level 1 to 4 and contributes to achieve 100 (of max. 100 achievable) checklist points according to criterion 'ENV1.2 Local Environmental Impact'.
- The product does not lead to toxic or corrosive fumes in case of fire. Hence this product contributes to achieve 20 (of max. 20 achievable) checklist points according to criterion 'SOC 1.7 Safety and Security'.

The product contains the following components:	Mass per unit [%]
K1 Steel parts	48%
K2 Aluminium	12%
K3 Copper	19%
K4 Zinc die-cast	18%
K5 Plastics	3%
K6 Lacquer	0%

About DGNB Products - www.dgnb.de

This declaration helps to assess products easily according the certification system DGNB. Products are not reviewed or certified by DGNB. DGNB credit requirements cover the performance of materials in aggregate, not the performance of individual products or brands. Therefore the project team or the manufacturer is responsible to declare the compliance with the project requirements to achieve DGNB points. Detailed information are on the next pages.

Product Declaration - DGNB New Construction Office and Administration Buildings (NBV12)

MANUFACTURER	GEZE GmbH
PRODUCT NAME	Automatic swing door drive family Powerturn

Product assessment of complete system

Topic	Number	Criteria	Relevance	Evaluation
Environmental Quality (ENV)	ENV1.1	Life cycle Assessment - Emissions		
	ENV1.2	Local environmental impact	✓	Quality Level 4 is fulfilled
	ENV1.3.1	Responsible procurement (Wood)		
	ENV1.3.2	Responsible procurement (Formwork)		
	ENV1.3.3	Responsible procurement (Natural Stone)		
	ENV2.1	Life cycle Assessment - Primary Energy		
	ENV2.2	Potable water demand and wastewater volume		
	ENV2.3	Land Use		
Economic Quality (ECO)	ECO1.1	Building-related life-cycle costs		
	ECO2.1	Suitability for conversion		
	ECO2.2	Marketability		
Sociocultural and Functional Quality (SOC)	SOC1.1	Thermal Comfort		
	SOC1.2	Indoor Air Quality		
	SOC1.3	Acoustic Comfort		
	SOC1.4	Visual Comfort		
	SOC1.5	Occupant control		
	SOC1.6	Quality of outdoor spaces		
	SOC1.7	Safety and security	✓	The product does not lead to toxic or corrosive fumes in case of fire
	SOC2.1	Access for all		
	SOC2.2	Public access		
	SOC2.3	Cyclist facilities		
	SOC3.1	Design and urban quality		
	SOC3.2	Integration of public art		
	SOC3.3	Floor Plan Qualities		
Technical Quality (TEC)	TEC1.1	Fire prevention		
	TEC1.2	Noise protection		
	TEC1.3	Building envelope quality		
	TEC1.4	Adaptability of Technical Systems		
	TEC1.5	Ease of cleaning and maintenance		
	TEC1.6	Ease of dismantling and recycling		
	TEC1.7	Sound immission control		
Process Quality (PRO)	PRO1.1	Comprehensive project brief		
	PRO1.2	Integral design		
	PRO1.3	Design concept		
	PRO1.4	Sustainability aspects in tender phase		
	PRO1.5	Documentation for Facility Management		
	PRO2.1	Environmental impact of construction		
	PRO2.2	Construction quality assurance		
	PRO2.3	Systematic commissioning		
Site Quality (SITE)	SITE1.1	Site location risks		
	SITE1.2	Public image and social conditions		
	SITE1.3	Access to transportation		
	SITE1.4	Access to specific-use facilities		

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MANUFACTURER	GEZE GmbH
PRODUCT NAME	Automatic swing door drive family Powerturn

Product assessment for criteria ENV1.2 - Local environmental impact

The product fulfills the requirements for Quality Level 1-4

Assessment: **Quality Level 4****Goals and Relevance**

Certain materials, construction products and preparations are a risk for soil, air, groundwater and surface water as well as for human's health, flora and fauna. In order to minimize risks for humans and the local environment, materials, (construction) products and preparations need to be reduced, avoided or substituted, which due to their material properties or ingredients are a risk for surface and ground water, soil or air. Especially those materials, (construction) products and preparations must be reduced, avoided or replaced, which affect human health, flora and fauna or harm within a short-, medium / or long-term period. This affects the entire life cycle - from production, processing at site, use of (building) inventory and disposal (dismantling, recycling, landfilling). These local risks are assessed material and product related. Hence eco-and human toxicological impact categories of LCA can not be applied due to lack of evaluation and measurement procedures.

Product Assessment

Relevant Products	Requirements of Quality Levels	Assesment of Product	Evaluation
14 Non-structural metal components such as stair railings, metal framing, frames, steel doors, facade elements etc. Subject: Anti-corrosion coatings and special effect coatings (eg metallic effect paints)	Quality Level 1 VOC-Content < 300 g/l - according to category D of VOC-Guideline 2004/42/EG Quality Level 2 VOC-Content < 300 g/l - according to category D of VOC-Guideline 2004/42/EG Quality Level 3 Waterborne products VOC <140 g / l Exception: Metallic effect coatings <300 g / l - Category A / d according to VOC-guideline 2004/42 / EC Quality Level 4	VOC-Content < 140 g/l (129 g/l)	Quality Level 4

Relevant Products	Requirements of Quality Levels	Assesment of Product	Evaluation
26 Panels made of aluminum and stainless steel on the facade and the roof (sun protection systems are not currently considered) Subject: Products to passivation of aluminum and stainless steel	Quality Level 1 No requirements Quality Level 2 No requirements Quality Level 3 Chromium VI-free passivation Quality Level 4 Chromium VI-free passivation	Use of chromium-VI-free passivation agents	Quality Level 4

Relevant Products	Requirements of Quality Levels	Assesment of Product	Evaluation
27 Factory coated metal components: cladding, doors, radiators, heating and cooling ceilings. Hot-dipped galvanizing are not considered as coatings for the purposes of this criterion. Subject: Primer and finish coat (for example, paints, varnishes, powder coatings)	Quality Level 1 No use of lead, cadmium and chromium VI compounds Quality Level 2 No use of lead, cadmium and chromium VI compounds Quality Level 3 No use of lead, cadmium and chromium VI compounds Quality Level 4 No use of lead, cadmium and chromium VI compounds	No use of lead, cadmium and chromium VI compounds	Quality Level 4

Product Declaration - DGNB New Construction Office and Administration Buildings (NBV12)

MANUFACTURER GEZE GmbH

PRODUCT NAME Automatic swing door drive family Powerturn

	Relevant Products	Requirements of Quality Levels	Assesment of Product	Evaluation
28	Plastics for coating of surfaces (floor and wall) and components on the facade	Quality Level 1 Content of lead and tin <0.1% Quality Level 2 Content of lead and tin <0.1% Quality Level 3 Content of lead and tin <0.1% Quality Level 4 Content of lead and tin <0.1%	The lead and tin content of the plastics used is <0.1%	Quality Level 4

Other remarks on classification

For buildings that are certified according to DGNB, it must be ensured that only water dilutable coatings are used.

Product Declaration - DGNB New Construction Office and Administration Buildings (NBV12)

MANUFACTURER	GEZE GmbH
PRODUCT NAME	Automatic swing door drive family Powerturn

Product assessment for criteria SOC1.7 - Safety and Security

The product fulfills the requirements for prevention of fumes.

Assessment: **20 of 20**
Checklist Points

Goals and Relevance

A high sense of security contributes fundamentally to the comfort of human being. The goal is to avoid dangerous situations as much as possible and to reduce the impact of a non-preventable damage, as far as possible. The criterion safety and security assesses also the performance of products in case of fire.

Product Assessment

	Relevant Requirements	Requirements of Quality Levels	Assesment of Product	Evaluation
2.3	Prevention from risks of fumes	20 Checklist Points The product does not lead to toxic or corrosive fumes in case of fire	The product does not lead to toxic or corrosive fumes in case of fire.	20 Checklist Points

Other remarks on classification

Product Declaration - LEED® 2009 New Construction And Major Renovations NC & CS
Manufacturer **GEZE GmbH**
Product Name **Automatic swing door drive family Powerturn**
Product Rating

- The product contains 12% recycled materials and contribute to achieve LEED credits within MR Credit 4.

Indoor Environmental Quality (IEQ) - LEED Category

 IEQ Credit 4.1: Low Emitting Materials: **Adhesives and Sealants** 1 Point

 IEQ Credit 4.2: Low Emitting Materials: **Paints and Coatings** 1 Point

 IEQ Credit 4.3: Low Emitting Materials: **Flooring Systems** 1 Point

 IEQ Credit 4.4: Low Emitting Materials: **Composite Wood and Agrifiber Products** 1 Point
Materials and Resources (MR) - LEED Category

 MR Credit 4: **Recycled Content** 1-2 Points **12%**

 MR Credit 5: **Regional Materials** 1-2 Points **See Location**

 MR Credit 6: **Rapidly Renewable Materials** 1 Point

 MR Credit 7: **Certified Wood** 1 Point
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About LEED & Products - www.usgbc.org

This declaration helps to assess products easily according the certification system LEED® 2009 New Construction and Major Renovations NC & CS (excluded SCHOOLS). Products are not reviewed or certified by LEED. LEED credit requirements cover the performance of materials in aggregate, not the performance of individual products or brands. For more information about LEED visit www.usgbc.org/leed. The project team or the manufacturer is responsible to declare the compliance with the project requirements to achieve LEED points.

Below you find an explanation of the symbols. Detailed information are on the next pages.

- Credit requirements fulfilled - the credit point can be achieved**
- Credit is not applicable to this product**
- 22%** **X% of the product comply with the credit requirement**
- **Required data not specified - for required data contact manufacturer**
- Credit requirements are not fulfilled**

Product Declaration - LEED® 2009 New Construction And Major Renovations NC & CS

Manufacturer **GEZE GmbH**Product Name **Automatic swing door drive family
Powerturn**

No	Product Name	Manufacturer	Mass per unit* [%]	VOC in g/l	VOC-Limit in g/l	Flooring Systems	Composite Agrifiber product	Recycled Content		Regional Materials		Rapidly Renewable Material	Certified Wood
								Post-Consumer	Pre-Consumer	Location Harvesting/ Extraction	Location Manufacturing		
A1	Steel parts	GEZE GmbH	~ 48.1%	N/A	N/A	N/A	N/A	25%**	0%	Not specified	Not specified	N/A	N/A
A2	Aluminium	GEZE GmbH	~ 12.2%	N/A	N/A	N/A	N/A	Not specified	Not specified	Not specified	Not specified	N/A	N/A
A3	Copper	GEZE GmbH	~ 18.5%	N/A	N/A	N/A	N/A	Not specified	Not specified	Not specified	Not specified	N/A	N/A
A4	Zinc die-cast	GEZE GmbH	~ 17.7%	N/A	N/A	N/A	N/A	Not specified	Not specified	Not specified	Not specified	N/A	N/A
A5	Plastics	GEZE GmbH	~ 3.1%	N/A	N/A	N/A	N/A	Not specified	Not specified	Not specified	Not specified	N/A	N/A
A6	Lacquer	GEZE GmbH	~ 0.3%	N/A	N/A	N/A	N/A	Not specified	Not specified	Not specified	Not specified	N/A	N/A
A7													
A8													
A9													
A10													
								12.0%	—	If the location of 'Harvesting & Extraction' and 'Manufacturing' is within a radius of 500 miles of the project the subproduct contributes to the credit.		○	○
Automatische Drehtürantriebs Familie Powerturn								12.0%					

*All values are based on the unit:1 element **LEED default recycled content for steel

Manufacturer **GEZE GmbH**

Product Name **Automatic swing door drive family Powerturn**

MR Credit 4: Recycled Content (1-2 Points)

Intent

To increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.

Requirement

Use materials with recycled content* such that the sum of post-consumer** recycled content plus one-half of the pre-consumer*** content constitutes at least 10%/20% (based on cost) of the total value of the materials in the project.

The minimum percentage materials recycled for each point threshold is as follows:

- 10% Recycled Content -> 1 Point
- 20% Recycled Content -> 2 Points.

* Recycled content is defined in accordance with the International Organization of Standards document, ISO 14021 — Environmental labels and declarations — Self-declared environmental claims (Type II environmental labeling).

** Postconsumer material is defined as waste material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product, which can no longer be used for its intended purpose.

*** Preconsumer material is defined as material diverted from the waste stream during the manufacturing process. Reutilization of materials (i.e., rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated it) is excluded.

Detailed Rating

No	Product Name	Manufacturer	Recycled Content		Contribution of Product	
			Post-Consumer	Pre-Consumer		
A1	Steel parts	GEZE GmbH	25%**	0%	Accountable recycled content according to LEED is 25% (1 x Post-Consumer + 0.5 x Pre-Consumer). **1 LEED default recycled content for steel	25%
A2	Aluminium	GEZE GmbH	Not specified	Not specified	No recycled content specified.	—
A3	Copper	GEZE GmbH	Not specified	Not specified	No recycled content specified.	—
A4	Zinc die-cast	GEZE GmbH	Not specified	Not specified	No recycled content specified.	—
A5	Plastics	GEZE GmbH	Not specified	Not specified	No recycled content specified.	—
A6	Lacquer	GEZE GmbH	Not specified	Not specified	No recycled content specified.	—

Product Declaration - LEED® 2009 New Construction And Major Renovations NC & CS
Manufacturer **GEZE GmbH**
Product Name **Automatic swing door drive family Powerturn**
MR Credit 5: Regional Materials (1-2 Points)
Intent

To increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation.

Requirement

Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for a minimum of 10% or 20%, based on cost, of the total materials value. If only a fraction of a product or material is extracted, harvested, or recovered and manufactured locally, then only that percentage (by weight) must contribute to the regional value. The minimum percentage regional materials for each point threshold is as follows:

- 10% Regional Materials -> 1 Point
- 20% Regional Materials -> 2 Points.

Detailed Rating

No	Product Name	Manufacturer	Location Harvesting/ Extraction	Location Manufacturing
A1	Steel parts	GEZE GmbH	Not specified	Not specified
A2	Aluminium	GEZE GmbH	Not specified	Not specified
A3	Copper	GEZE GmbH	Not specified	Not specified
A4	Zinc die-cast	GEZE GmbH	Not specified	Not specified
A5	Plastics	GEZE GmbH	Not specified	Not specified
A6	Lacquer	GEZE GmbH	Not specified	Not specified