

Environmental Product Declaration (EPD)

Short version

Declaration code: EPD-GA-GB-30.0



JET Brakel
Aero GmbH

Daylight systems

JET BA 5/6- glazing system and
JET VENTRIA 3 vent system



Basis:

DIN EN ISO 14025
EN15804

company-EPD
Environmental
Product Declaration

date of issue:
27.02.2018

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27.02.2023



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Declaration code: EPD-GA-GB-30.0

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LCA specialist	brands & values GmbH Vagtstr. 48/50 28203 Bremen		
Declaration holder	JET Brakel Aero GmbH Alte Hünxer Straße 179 46562 Voerde		
Deklaration code	EPD-GA-GB-30.0		
Designation of the declared product	glass architecture JET BA 5/6- glazing system and JET VENTRIA 3 vent system		
scope	The glass roof construction serves additionally, besides the actual function as a roof, to increase the incidence of daylight and natural ventilation.		
basis	This EPD has been developed on the basis of EN ISO 14025: 2011 and EN 15804:2012+A1:2013. In addition, the general guide for the preparation of Type III environmental product declarations applies. The declaration is based on the PCR document „Fassaden und Glasdächer“ (facades and glass roofs) – PCR-FA-2.0:2013		
validity	date of issue: 27.02.2018	last revision: 27.02.2018	next revision: 27.02.2023
	This verified company Environmental Product Declaration applies solely to the specified products and is valid for a period of 5 years from the date of issue according to EN 15804.		
LCA basis	The LCA was prepared in accordance with DIN EN ISO 14040 and DIN EN ISO 14044. The base data include both data collected at JET Brakel Aero GmbH and generic data from the „GaBi ts“ database. The Life Cycle Assessment was calculated through the life cycle „cradle to gate with options“ taking into account all upstream chains such as raw material exploitation.		
Notes on publications	The "Conditions and Guidance on the Use of ift Test Documents" apply. The declaration holder assumes full liability for the underlying data, certificates and verifications.		
			
Prof. Ulrich Sieberath Director of Institute	Dr.-Ing. Carolin Roth External Verifier		

Note: further information can be found in the full version

Product group: Daylight systems

Results per m ² glass architecture (Part 1 from 2) *																
Environmental impacts	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D*)
Global warming potential(GWP)	kg CO ₂ -Äqv.	287	1,72	0,473	-	1,44	5,6	-	-	-	-	-	0,62	5,42	1	-77,6
Ozone depletion potential (ODP)	kg R11-Äqv.	4,29E-08	3,41E-13	8,46E-13	-	7,93E-13	5,34E-08	-	-	-	-	-	1,38E-13	1,03E-11	3,24E-12	6,80E-07
Acidification potential of soil and water (AP)	kg SO ₂ -Äqv.	1,23	7,17E-03	1,64E-04	-	1,93E-03	9,31E-03	-	-	-	-	-	3,76E-03	1,11E-03	5,880E-03	-0,328
Eutrophication potential (EP)	kg PO ₄ ³⁻ -Äqv.	0,136	1,77E-03	2,17E-05	-	1,40E-03	1,44E-03	-	-	-	-	-	9,48E-04	1,21E-04	8,00E-04	-0,0178
Photochemical ozone creation potential (POCP)	kg C ₂ H ₄ -Äqv.	0,0835	-2,62E-03	1,69E-05	-	1,09E-04	1,46E-03	-	-	-	-	-	-1,67E-03	6,87E-05	4,65E-04	-0,0255
Abiotic depletion potential - non fossil resources (ADP - elements)	kg Sb-Äqv.	2,15E-03	1,84E-07	2,47E-06	-	3,96E-07	5,21E-05	-	-	-	-	-	6,27E-08	4,20E-07	3,56E-07	-2,28E-04
Abiotic depletion potential - fossil resources (ADP – fossil fuels.)	MJ	3,39E+03	23,3	0,708	-	2,23	79,4	-	-	-	-	-	8,37	2,81	12,8	-831
Use of resources	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D*)
Use of renewable primary energy - excluding renewable primary energy resources used as raw materials	MJ	730	1,57	4,88	-	0,351	3	-	-	-	-	-	0,537	1,11	1,55	-306
Use of renewable primary energy resources used as raw materials (material use)	MJ	4,56	0	-4,56	-	0	0	-	-	-	-	-	0	0	0	0
Total use of renewable primary energy resources (primary energy and renewable primary energy resources used as raw materials) (energy + material use)	MJ	734	1,57	0,321	-	0,351	3	-	-	-	-	-	0,537	1,11	1,55	-306
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials.	MJ	3,70E+03	23,4	0,62	-	2,42	49,2	-	-	-	-	-	8,41	48,60	13,3	-924
Use of non-renewable primary energy resources used as raw materials (material use)	MJ	81	0	0,2	-	0	36,2	-	-	-	-	-	0	-44,60	0	0
Total use of non-renewable primary energy resources (primary energy and non-renewable primary energy resources used as raw materials) (energy + material use)	MJ	3,78E+03	23,4	0,82	-	2,42	85,4	-	-	-	-	-	8,41	3,99	13,3	-924
Use of secondary materials	kg	2,34	0	0	-	0	0	-	-	-	-	-	0	0	0	-87,8

Product group: Daylight systems

Results per m2 glass architecture (Part 2 from 2) *																
Use of resources	unit	A1-A3	A4	A5	B1	B2	B3	B4	B4	B6	B7	C1	C2	C3	C4	D*)
Use of renewable secondary fuels	MJ	0	0	0	-	0	0	-	-	-	-	-	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	0	0	-	0	0	-	-	-	-	-	0	0	0	0
Use of net fresh water	m ³	2,30	1,82E-03	1,49E-03	-	0,0102	0,0211	-	-	-	-	-	6,77E-04	0,0138	0	-0,84
Waste categories	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D*)
Hazardous waste disposed	kg	1,03E-05	1,47E-06	4,16E-09	-	8,49E-08	5,76E-07	-	-	-	-	-	5,11E-07	5,74E-07	2,10E-07	-5,31E-07
Non-hazardous waste disposed (municipal waste)	kg	41,90	1,80E-03	0,0115	-	0,468	0,766	-	-	-	-	-	6,44E-04	0,24	61,7	-15,2
Radioactive waste	kg	0,153	3,55E-05	4,44E-05	-	7,58E-05	2,46E-03	-	-	-	-	-	1,25E-05	4,68E-04	1,82E-04	-0,0390
Output material flows	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D*)
Components for re-use	kg	0	0	0	-	0	0	-	-	-	-	-	0	0	0	0
Materials for recycling	kg	1,6	0	0	-	0	0,0292	-	-	-	-	-	0	26,4	0	0
Materials for energy recovery	kg	0	0	0	-	0	0	-	-	-	-	-	0	0	0	0
Exported energy (electricity)	MJ	0	0	0,543	-	0	4,12	-	-	-	-	-	0	10,3	0	0
Exported energy (thermal energy)	MJ	0	0	1,27	-	0	10,1	-	-	-	-	-	0	25,3	0	0

This table shows the environmental impacts of 1 m² of representative glass architecture system. The representative product was calculated with a total of 1097 m² roof area including 32 Ventria 3 vent system (max. area 4 m²/VENTRIA 3) and scaled to the declared unit. Information for each product 1 m² JET VENTRIA 3 vent system or 1m² JET BA5/6 glazing system is provided in the long version.

Table 1 Results for a representative glass architecture system

Imprint

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notes

This EPD is mainly based on the work and findings of the Institut für Fenstertechnik e.V., Rosenheim (ift Rosenheim) and specifically on the ift-Guideline NA-01/3 – Guidance on the Preparation of Type III Environmental Product Declarations.

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