



SHI PRODUCT PASSPORT

Find products. Certify buildings.

SHI Product Passport No.:

14136-10-1011

freeAir 100e

Product group: Technical building equipment / Sanitary facilities - Ventilation



bluMartin GmbH
Argelsrieder Feld 1b,
82234 Wessling



Product qualities:



Köttner

Helmut Köttner
Scientific Director

Freiburg, 02 February 2026



Contents

 SHI Product Assessment 2024	1
 QNG - Qualitätssiegel Nachhaltiges Gebäude	2
 DGNB New Construction 2023	3
 DGNB New Construction 2018	4
 BNB-BN Neubau V2015	5
 EU taxonomy	6
 BREEAM DE Neubau 2018	7
Product labels	8
Legal notices	9
Technical data sheet/attachments	10

The SHI Database is the first and only database for construction products whose comprehensive processes and data accuracy are regularly verified by the independent auditing company SGS-TÜV Saar





Product:

freeAir 100e

SHI Product Passport no.:

14136-10-1011



SHI Product Assessment 2024

Since 2008, Sentinel Holding Institut GmbH (SHI) has been establishing a unique standard for products that support healthy indoor air. Experts carry out independent product assessments based on clear and transparent criteria. In addition, the independent testing company SGS regularly audits the processes and data accuracy.

Criteria	Product category	Harmful substance limit	Assessment
SHI Product Assessment	Other floor coverings	TVOC $\leq 160 \mu\text{g}/\text{m}^3$ Formaldehyd $\leq 10 \mu\text{g}/\text{m}^3$	Indoor Air Quality Certified
Valid untill: 17 March 2027			



Product:

freeAir 100e

SHI Product Passport no.:

14136-10-1011



QNG - Qualitätssiegel Nachhaltiges Gebäude

The Qualitätssiegel Nachhaltiges Gebäude (Quality Seal for Sustainable Buildings), developed by the German Federal Ministry for Housing, Urban Development and Building (BMWSB), defines requirements for the ecological, socio-cultural, and economic quality of buildings. The Sentinel Holding Institut evaluates construction products in accordance with QNG requirements for certification and awards the QNG ready label. Compliance with the QNG standard is a prerequisite for eligibility for the KfW funding programme. For certain product groups, the QNG currently has no specific requirements defined. Although classified as not assessment-relevant, these products remain suitable for QNG-certified projects.

Criteria	Pos. / product group	Considered substances	QNG assessment
3.1.3 Schadstoffvermeidung in Baumaterialien	not applicable	not applicable	QNG ready - Not relevant for assessment



Product:

freeAir 100e

SHI Product Passport no.:

14136-10-1011



DGNB New Construction 2023

The DGNB System (German Sustainable Building Council) assesses the sustainability of various types of buildings. It can be applied to both large-scale private and commercial projects as well as smaller residential buildings. The 2023 version sets high standards for ecological, economic, socio-cultural, and functional aspects throughout the entire life cycle of a building.

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact, 03.05.2024 (3rd edition)			Not relevant for assessment

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact, 29.05.2025 (4th edition)	not applicable		Not relevant for assessment



Product:

freeAir 100e

SHI Product Passport no.:

14136-10-1011



DGNB New Construction 2018

The DGNB System (German Sustainable Building Council) assesses the sustainability of various types of buildings. It can be applied to both large-scale private and commercial projects as well as smaller residential buildings.

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact			Not relevant for assessment



Product:

freeAir 100e

SHI Product Passport no.:

14136-10-1011



BNB-BN Neubau V2015

The Bewertungssystem Nachhaltiges Bauen (Assessment System for Sustainable Building) is a tool for evaluating public office and administrative buildings, educational facilities, laboratory buildings, and outdoor areas in Germany. The BNB was developed by the former Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) and is now overseen by the Federal Ministry for Housing, Urban Development and Building (BMWSB).

Criteria	Pos. / product type	Considered substance group	Quality level
1.1.6 Risiken für die lokale Umwelt			Not relevant for assessment



Product:

freeAir 100e

SHI Product Passport no.:

14136-10-1011



EU taxonomy

The EU Taxonomy classifies economic activities and products according to their environmental impact. At the product level, the EU regulation defines clear requirements for harmful substances, formaldehyde and volatile organic compounds (VOCs). The Sentinel Holding Institut GmbH labels qualified products that meet this standard.

Criteria	Product type	Considered substances	Assessment
DNSH - Pollution prevention and control		Substances according to Annex C	EU taxonomy compliant
Verification: Herstellererklärung des Lieferanten vom 25.03.2025			



Product:

freeAir 100e

SHI Product Passport no.:

14136-10-1011



BREEAM DE Neubau 2018

BREEAM (Building Research Establishment Environmental Assessment Methodology) is a UK-based building assessment system that evaluates the sustainability of new constructions, refurbishments, and conversions. Developed by the Building Research Establishment (BRE), the system aims to assess and improve the environmental, economic, and social performance of buildings.

Criteria	Product category	Considered substances	Quality level
Hea 02 Indoor Air Quality			Not relevant for assessment



Product:

freeAir 100e

SHI Product Passport no.:

14136-10-1011



Product labels

In the construction industry, high-quality materials are crucial for a building's indoor air quality and sustainability. Product labels and certificates offer guidance to meet these requirements. However, the evaluation criteria of these labels vary, and it is important to carefully assess them to ensure products align with the specific needs of a construction project.



This product is SHI Indoor Air Quality certified and recommended by Sentinel Holding Institut. Indoor-air-focused construction, renovation, and operation of buildings is made possible by transparent and verifiable criteria thanks to the Sentinel Holding concept.



Products bearing the Sentinel Holding Institut QNG-ready seal are suitable for projects aiming to achieve the "Qualitätssiegel Nachhaltiges Gebäude" (Quality Seal for Sustainable Buildings). QNG-ready products meet the requirements of QNG Appendix Document 3.1.3, "Avoidance of Harmful Substances in Building Materials." The KfW loan program Climate-Friendly New Construction with QNG may allow for additional funding.



Product:

freeAir 100e

SHI Product Passport no.:

14136-10-1011



Legal notices

(*) These criteria apply to the construction project as a whole. While individual products can positively contribute to the overall building score through proper planning, the evaluation is always conducted at the building level. The information was provided entirely by the manufacturer.

Find our criteria here: <https://www.sentinel-holding.eu/de/Themenwelten/Pr%C3%BCfverfahren/Pr%C3%BCfverfahren%20f%C3%BCr%20Produkte>

The SHI Database is the first and only database for construction products whose comprehensive processes and data accuracy are regularly verified by the independent auditing company SGS-TÜV Saar



Publisher

Sentinel Holding Institut GmbH
Bötzingen Str. 38
79111 Freiburg im Breisgau
Germany
Tel.: +49 761 590 481-70
info@sentinel-holding.eu
www.sentinel-holding.eu

Technische Daten

Abmessung Innenfront	28 x 58 cm (Frontplatte); 30 x 63 cm (Front Cover II)
Wanddicke	32 bis 53 cm inkl. Putz (andere Maße mit Zubehör möglich)
Luftstrom	8 bis 100 m ³ /h
Temperaturänderungsgrad	86 % (nach PHI-Kriterien, EN 13141-8 und EN 13141-7)
Wärmerückgewinnung	94 % (bei 50 % relativer Feuchte)
Wärmetauscher	Kreuzgegenstrom; Aluminium
Stromnetzanschluss	100 bis 265 V AC; 45 bis 65 Hz; interne Sicherung 3 A
Stromverbrauch	20 m ³ /h → 5 W; 70 m ³ /h → 15 W; 100 m ³ /h → 30 W
Spezifischer Stromverbrauch	0,21 W/m ³ h
Leistungszahl	typisch 30 bis 50 (Energiegewinnung zu Stromverbrauch)
Gewicht	10 kg
Schalldruckpegel im Raum (20 m ² Absorptionsfläche)	20 m ³ /h → 16 dB (A); 30 m ³ /h → 19 dB (A); 60 m ³ /h → 33 dB (A); mit Premium Cover → 21 dB (A); 100 m ³ /h → mit Premium Cover → 35 dB (A)
Schalldämm-Maß	Standby → 52 dB (DIN EN 10140-2; D _{n, e, w}); Betrieb → 46 dB (mit Premium Cover max. 62 dB)
Bedarfsführung	Intelligente Comfort-Regelung mit 5 Levels
Luftstromregelung	Automatisch; prakt. stufenlos; volumenkonstant; balanciert
CO ₂ -Regelung	Automatisch
Feuchtemanagement	Automatisch (typisch 40 bis 60 % relative Feuchte)
Sommerkühlung	Automatisch und mit Turbo-Cool
Frostschutz	Automatische Bypass-Regelung ab ca. -5°C außen
Temperaturbereich	-40 bis +50°C außen und 0 bis +40°C innen
Filter – Zuluft (ISO 16890)	Protect ePM10 (Pollen) oder Protect plus ePM1 (Allergiker)
Filter – Abluft (ISO 16890)	Protect ePM10
Smart-Home	Connect WiFi; Connect USB; bluHome Connect (Zubehör für ModBus, KNX, BACnet, RS232)
Farbe	Frontplatte weiß oder grundiert (bestreich- und gestaltbar)
Zulassungen	DIBt: Z-51.3-287; Passivhaus: 0641s03 und 1220s03

Produktdatenblatt – Richtlinie 2009/125/EG

Lieferant	bluMartin GmbH
Lüftungsgerät	freeAir 100 ^e – Einraum (dezentral; EN 13141-8) freeAir 100 ^e – Mehrraum (zentral; EN 13141-7)
SEV-Klasse	Einraum (dezentral): A+; -42,31 kWh/a m ² Mehrraum (zentral): A+; -42,35 kWh/a m ²
Geräte-Typ	Wohnraumlüftungsanlage mit zwei Luftrichtungen
Antriebs-Typ	Drehzahlregelung
Wärmerückgewinnung	Rekuperativ
Temperaturänderungsgrad	86 % (bei 100 m ³ /h und 2°C)
Maximaler Luftstrom	100 m ³ /h
Maximale Eingangsleistung	50 W
Schalleistungspegel	70 m ³ /h → 44 dB (A); 20 m ³ /h → 23 dB (A) mit Premium Cover: 70 m ³ /h → 32 dB (A)
Bezugs-Luftstrom	70 m ³ /h
Bezugs-Druckdifferenz	65 Pa
Spezifische Eingangsleistung	Einraum: 0,21 W/m ³ h Mehrraum: 0,25 W/m ³ h
Steuerungsfaktor	0,65 (nach örtlichem Bedarf)
Innere Leckluftquote	Einraum: 0,4 % (bei 100 m ³ /h und +/- 20 Pa; Klasse A1) Mehrraum: 1,3 % (bei 100 m ³ /h und 100 Pa; Klasse A1)
Äußere Leckluftquote	Einraum: 1,9 % (bei 100 m ³ /h und +/- 50 Pa; Klasse A1) Mehrraum: 5,4 % (bei 100 m ³ /h und 250 Pa; Klasse A3)
Mischquote	2,7 % (außen); 0,7 % (innen)
Filterwarnanzeige	Rote LED linke und rechte Geräteseite (verschmutzte Filter führen zu verminderter Luftqualität + Über- oder Unterdruck)
Internetadresse	www.bluMartin.de
Empfindlichkeit-Druckschwank.	4,7 % (Klasse S1)
Luftdichtigkeit	4,8 m ³ /h (Klasse D1)

Weßling, den 20.02.2023

Bernhard Martin