

Declaration of performance

- 1. Product type's individual identification code:** HVAC elements and Active Chilled Beams manufactured by Airvent Zrt.; their individual identification codes are listed in the A-228/2014 National Technical Assessment and in the relevant product catalogues.
- 2. Identification of the construction product:** the product mentioned in this declaration, can be identified by the shipment documentation.
- 3. Purpose of the construction product as defined by the manufacturer:** The products are used for designing air duct systems, ventilation, and air conditioning of buildings for industrial or residential use. According to the relevant civil engineering plans, the installation shall be inside and/or outside of buildings, within the building structure or in the substrate. In the case of products where the reaction to fire class is not determined, the products are used, from the aspect of reaction to fire class, where their use is particularly allowed by technical specifications.
- 4. Manufacturer:** **AIRVENT Légtechnikai Zrt.** (Tax number: 11577047-2-03) www.airvent.hu
Head office, Production Plant 6000 Kecskemét, Belsőnyír 150. Phone: +36-76/481-650 avkecskemet@airvent.hu
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East Hungary Trading Office 4034 Debrecen, Vámospércsi út 157/A Phone: +36-30/338-7105 avdebrecen@airvent.hu
- 5. Authorized representative:** none.
- 6. System for the assessment and verification of constancy of performance:** Based on Commission Decision No. 2015/1936/EC, and according to Annex V of the European Parliament and Council Regulation No. 305/2011/EU: **System (3).**
- 7. Harmonized standards:** -.
- 8. Designated/notified technical assessment body:**
ÉMI Construction Quality Control Innovation Nonprofit Ltd. NB 1415 Phone: +36-26/502-300 www.emi.hu
Address: 2000 Szentendre, Dózsa György út 26 Postal address: 2001 Szentendre, Pf: 180 info@emi.hu
Airvent NTA No. A-228/2014 issued 15.12.2023 Validity can be checked on the website of ÉMI Nonprofit Ltd.
The verified properties and performance of the product are documented in the NMV with the same mark as the NMV, dated 01.04.2015, the First Type Examination Certificate with the same mark as the NMV, dated 01.04.2015 and marked A-228/2014, and the Supplementary Performance Evaluation Certificate with the mark A-228/2014, dated 15.12.2023. Performance Record Book.
- 9. Declaration of performance:** see pages 2 to 4.
- 10.** The performance of the product specified in section 1.2 of NTA No. A-228/2014 valid from 15.12.2023 complies with the performance specified in the declaration. Exclusively the manufacturer (or the authorized representative) is responsible for issuing this declaration of performance.



Michael Pataki
CEO

9. Declaration of performance:

Main properties of the raw material of the products		
Properties	Value	Assessment method
Galvanized steel sheet DX51D+Z275MAC - tensile strength - elongation at rupture	387 Mpa 37%	MSZ EN 10346:2015
Galvanized steel sheet coil DX51D+AZ185 - tensile strength - elongation at rupture	356-420 MPa 30.6-36.6 %	MSZ EN 10346:2015
Steel pipe - tensile strength - elongation at rupture	340-480 MPa 34.5%	MSZ EN 10305- 1:2016
Galvanized steel strip DX51D+Z275 - tensile strength - elongation at rupture	369 MPa 34.5%	MSZ EN 10346:2015 MSZ EN 10143:2006
Cold rolled steel plate DC01 Am - tensile strength - elongation at rupture	270-410 MPa 41%	MSZ EN 10130:2007
Cold rolled steel sheet DC04 - tensile strength - elongation at rupture	305 MPa 41%	MSZ EN 10130:2007
Aluminium sheet and strip - tensile strength - elongation at rupture	220 MPa 23%	MSZ EN 573-3:2019 +A1:2022 MSZ EN 485-2:2016 +A1:2019
Aluminium profile - tensile strength - elongation at rupture	215 MPa 14%	MSZ EN 573-3:2019 +A1:2022
Aluzinc sheet - S420GD+AZ150 - tensile strength - elongation at rupture	552-563 MPa 23-24 %	MSZ EN ISO 10346:2015
Copper pipe Y040 - tensile strength	244-246.6 MPa	MSZ EN 12735- 2:2016
Rectangular steel profile S235JR C h11 QU - tensile strength	630 MPa	MSZ EN 10025:2005
EPDM rubber 3EP8001 - Shore hardness - elongation min.	60 Sh A 300%	Manufacturer's data
Glass wool - fire class - thermal conductivity factor	A1 0.032 W/m, K	MSZ EN 13501- 1:2019 MSZ EN 13162:2012 +A1:2015
Airfelt (PET) thermal and sound insulation material - fire class - density - sound absorption class - thermal conductivity factor	B 60 kg/m ³ Class D 0.038 W/m, K	MSZ EN ISO 354:2003 and MSZ EN ISO 11654:1999
PAROC mineral wool thermal insulation - reaction to fire class - thermal conductivity factor	A1 0.035 W/m, K	MSZ EN 13501- 1:2019 MSZ EN 14303:2016
Rockwool Steprock ND mineral wool thermal insulation - reaction to fire class - thermal conductivity factor	A1 0.037 W/m, K	MSZ EN 13501- 1:2019 MSZ EN 13162:2012 +A1:2015
Polypropylene TIPPLEN K 395 - flow index - tensile strength - modulus of elasticity	13g/10 minutes 26 MPa 145 MPa	MSZ EN ISO 294-1:2018 MSZ EN ISO 1133-1:2022 MSZ EN ISO 527-1:2020 MSZ EN ISO 527-2:2012
Silicone pipe ELASTOSIL® R 401/70 S - Shore hardness	70 Sh A	ISO 3302-1:2014 ISO 7619-1:2010

Essential characteristics, performance and assessment methods		
Essential characteristics	Performance	Assessment method
Mechanical resistance and stability: NDP*		
Safety in case of fire		
Product name: all products		
Reaction to fire class Products made of uncoated metal sheet without gaskets*	A1	MSZ EN 13501-1:2019
Reaction to fire class Products made of coated metal sheet and/or with gaskets**	NPD ***	MSZ EN 13501-1:2019
<p>* Products made of uncoated metal sheet, without gasket, consist of the following materials: Galvanized steel sheet, steel pipe, spiro steel strip, perforated galvanized steel sheet, cold rolled steel sheet DC01 AM and DC04, aluminium sheet and strip, aluminium profile, aluzinc sheet, copper pipe, rectangular steel profile, glass wool (URSA) thermal and sound insulation (The sound absorbing insulation used in the products can be Airfelt (PET) insulation material, Rockwool Steprock rock wool or Paroc rock wool insulation material, depending on the customer's needs.).</p> <p>** Sheet metal products with coating and/or gaskets are made of the following materials: Powder-coated steel sheet, EPDM rubber, polypropylene, filter cartridge, polyethylene, silicone pipe.</p> <p>*** NPD (No Performance Determined)</p>		
Hygiene, health, and the environment: NDP*		
Safety and accessibility in use:		
Product group: Circular cross-sectional air ducts and their fittings		
Dimensions, circular cross-section - straight pipe air duct fittings	Value specified in the manufacturer's catalog	MSZ EN 1506:2007 4. MSZ EN 1506:2007 5.
Dimensional tolerance	Value specified in the manufacturer's catalog	MSZ EN 1506:2007 6.
Pressure drop, air speed:	Value specified in the manufacturer's catalog	MSZ EN ISO 9614-2:1999
Strength - circular cross-section	No deformation	MSZ EN 12237:2003
Airtightness - circular cross-section	Meets the provisions of MSZ EN 12237:2003 Leakage value < B, C, D leakage limits	
Mechanical energy loss factor	NPD*	MSZ CR 14378:2002
Maintainability	NPD*	MSZ EN 1209:2006
Product group: Silencers installed in air ducts		
Pressure drop, flow rate	Value specified in the manufacturer's catalog	Manufacturer' data
Dimensional tolerance of the connection to the air duct - rectangular cross-section	Value specified in the manufacturer's catalog	MSZ EN 1505:2000
Airtightness - rectangular cross-section	Meets the provisions of MSZ EN 1507:2006 tightness class C	MSZ EN 1507:2006
Total pressure loss	Value specified in the manufacturer's catalog	MSZ EN ISO 7235:2009
Product group: Air duct inlets and outlets		
Dimensional tolerance of the connection to the air duct - rectangular cross-section - circular cross-section	Value specified in the manufacturer's catalog	MSZ EN 1505:2000 MSZ EN 1506:2007
Aerodynamic characteristics (pressure drop/flow rate)	Value specified in the manufacturer's catalog	MSZ EN 13141-2 4.1:2010 MSZ EN ISO 9614-2:1999
Shutter air tightness test	Shut-off air-tightness class 2 Leakage class „A”	MSZ EN 1751:2014 5.
Free space	NPD*	MSZ EN 13141-1:2019
Air diffusion characteristics (in case of diffuser elements)	NPD*	MSZ EN 13141-2 4.2:2010 MSZ EN 12238:2001
Watertightness (when installed in an outdoor structure)	NPD*	MSZ EN 13141-1 7:2019

Product group: Chilled beams, heating, and cooling elements		
Pressure drop, flow rate	Pressure drop, flow rate	Pressure drop, flow rate
Tightness under hydrostatic pressure (1.3 x max. pressure, 10 sec)	Tightness under hydrostatic pressure (1.3 x max. pressure, 10 sec)	Tightness under hydrostatic pressure (1.3 x max. pressure, 10 sec)
Pressure resistance (1.69 x max. pressure, 2 min)	Pressure resistance (1.69 x max. pressure, 2 min)	Pressure resistance (1.69 x max. pressure, 2 min)
Dimensional tolerance	Dimensional tolerance	Dimensional tolerance
Air-side resistance	Air-side resistance	Air-side resistance Hydraulic resistance Thermal performance characteristic
Hydraulic resistance	Hydraulic resistance	
Thermal performance characteristic	Thermal performance characteristic	
Airtightness	Airtightness	
Product group: Ventilation shut-off and regulating valves		
Pressure drop, flow rate	Value specified in the manufacturer's catalog	MSZ EN ISO 9614-2:1999
Shut-off / control valve leakage class	Shut-off airtightness class 4 Leakage class "C"	MSZ EN 1751:2014 5.
Air volume - pressure drop curve	Value specified in the manufacturer's catalog	
Operating torque	Value specified in the manufacturer's catalog	MSZ EN 1751:2014 A. 4.1
Dimensional tolerance of the connection to the air duct - rectangular cross-section - circular cross-section	Value specified in the manufacturer's catalog	MSZ EN 1505:2000 MSZ EN 1506:2007
Protection against noise		
Product group: Silencer installed in air ducts		
Insertion loss (sound damping)	Value specified in the manufacturer's catalog	MSZ EN ISO 7235:2009
Flow noise	NPD*	MSZ EN ISO 7235:2009
Product group: Air duct inlets and outlets		
Noise emissions	Value specified in the manufacturer's catalog	MSZ EN 13141-2 5.1:2010
Insertion loss (sound damping)	Value specified in the manufacturer's catalog	MSZ EN 13141-2 5.2:2010 MSZ EN ISO 9614-2:1999
Product group: Ventilation shut-off and regulating valves		
Noise emissions	Value specified in the manufacturer's catalog	MSZ EN 13141-2:2010 5.1
Sound performance level	Value specified in the manufacturer's catalog	MSZ EN ISO 11691:1995
Energy economy and heat retention: NPD*		
Sustainable use of natural resources: NPD*		
NPD* (No Performance Determined)		