Teknisk Godkendelse til Anvendelsen Nr. TGA.2017/003

Issued: 2017-08-08
Valid till: 2020-07-01

MATERIAL OR CONSTRUCTION:
Roof ventilator

TRADE NAME:
J.A. Plastindustri tile and slate ventilators

MANUFACTURER:
J. A. Plastindustri A/S
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PRODUCT MARKING:
The products are, in agreement, with the customers delivered in packaging with a box label which clearly identifies the product.

REMARKS:
The assessment of the documentation has been conducted for system application in places that are comparable to common living quarters.

The approval has not determined whether the system contains dangers or hazardous substances, nor if the product releases particles, gases or radiation that negatively affect the indoor climate.

The TGA replaces the previous Agrement with:
- Number AGR.1999/0002
- Issue Date: April 2013

DESPRIPTION of MATERIAL and CONSTRUCTION:
The ventilators are partly manfactured by a thermoforming process, where a thermoplastic sheet is heated, formed and cooled, and partly by injection moulding The raw materials are high impact polystyrene and the surface of the ventilators is painted, glazed, sanded or gritted.

Minimumm characteristics indicated by the manufacture for the raw material.	Test method	Value Polystyrene
Tensile strength at 23 °C, N/mm^2, at yield	ISO 527	16
Tensile strength at 23 °C, N/mm^2, at break	ISO 527	23,5
Tensile modulus at 23 °C, N/mm^2	ISO 527	1450
Tensile strain at break at 23 °C %	ISO 527	70
Flexural strength	ISO 178	35
Izod Impact strength at 23 °C, kJ/m^2, 4 mm	ISO 180/1A	10
Izod Impact strength at -30 °C, kJ/m^2, 4 mm	ISO 180/1A	8
Charpy Impact strength at 23 °C, kJ/m^2	ISO 179/1eU	-
Charpy Impact strength at -30 °C, kJ/m^2	ISO 179/1eU	-
Specific mass, g/cm^3	ISO 1183	1,03 ± 0,03

Tabel 1 Minimum characteristics of the raw material

Pressure drop measurements and rain penetration tests on the ventilators have been performed by the Building Research Establishment, BRE:

Report number	Date	Description of test
201 911	February 2001	Rain Penetration Tests on Twelve Tile and Slate Ventilators
204 689	June 2001	Rain Penetration Tests on Isola Ridge Vents
208 782	June 2002	Rain Penetration Tests on Tile and Slate Ventilators
209 401	July 2002	Rain Penetration Tests on LV330 Tile and Slate Ventilator
209 402	July 2002	Rain Penetration Tests on IV50 Tile and Slate Ventilator
211 427	February 2003	Rain Penetration Tests on Dry Ridge Systems
211 429	March 2003	Rain Penetration Tests on Prototype Sandtoft Concealed Ridge Vents
232 800	December 2006	Rain Penetration Tests on Prototype and Current Ridge Ventilation Elements for Construction Ventilation

Tabel 2 Test Data

Evaluation of the documentation is based on test performed by Building Research Establishment Ltd, Garston, Watford, U. K of installed ventilator types LV 44, LV 100, LV 130 and LV 200.

The tests were performed under three conditions: deluge, low wind/high rain and high wind/low rain. Additional pressure drop measurements have been performed by the University of Aalborg, AAU on 2000-10-06.

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The tensile strength has been determined in accordance with DS/EN ISO 527-2 of 2012. Tensile strength for the test object, has been tested with a constant pulling speed of 50 mm/min. and documented in Danish Technological Institute report of 2012.

APPROVAL field of application:
The J. A. Plastindustri tile and slate ventilators are intended to be used to provide ventilation for attics, soil pipes and sanitary rooms. The ventilators are designed to fit roof materials, such as slates, concrete tiles, clay tiles, corrugated steel sheets, fibre cement among other roofing materials according to the manufactura.

The base of the ventilators is moulded to fit a given slate or tile so installation procedures will follow the normal procedures for installation of the given slate or tile. It is the responsibility of the manufacturer of the roofing material to provide an appropriate installation guide and it is the responsibility of the roofing contractor to ensure that the ventilators are installed correctly.

Based on test performed by Building Research Establishment Ltd, Garston, Watford, U. K, as described in table 2 and by the University of Aalborg, AUC, report dated 2000-10-06, an inspection of installed ventilator types LV 44, LV 100, LV 130 and LV 200 and an inspection of the factory it is the conclusion of ETA-Danmark that the J. A. Plastindustri ventilators are fit for the intended use as described above.

J. A. Plastindustri are obliged to forward test reports to ETA-Danmark on any new types of ventilators in the product range.

INSPECTION quality control:
The product is subject to external quality control. The continuous surveillance is conducted by Teknologisk Institut, Århus, (Danish Technological Institute, Aarhus) for the characteristics of the raw material once every year. The mean value between Longitudinal and Transverse, minus to standard deviations, is set to: **16 MPa**

Internal quality control
The manufacturer has a written quality and environmental control system according to ISO 9001. A visual inspection of the product is performed in every step of the manufacturing.

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