

TYPE APPROVAL DECISION

Granted 23 Nov 2010

Extension 17 Feb 2017

Valid 14 March 2021

By virtue of Section 5 of the Act on the Type Approval of Certain Construction Products (954/2012) and with consideration to the provisions of Chapter 2 of the Act, and Section 1 of the Decree of the Ministry of the Environment on the Type Approval of Certain Construction Products (555/2013), VTT Expert Services has granted the following type approval

PRODUCT Inward-opening, two-bolted wood-aluminum window, MSEA and wood window, MSEP

The windows are manufactured according to drawings TH16-1...6,8 (15.3.2016), TH16-8, OTHER SIDE (15.3.2016) and TH16-7 (8.2.2017)

MANUFACTURER Hatrick Oy, Nivala.

Alternatively Hatrick Oy, Nivala manufactures the inner sash and a client company authorized by Hatrick Oy manufactures the frame and outer sash and assembles the window.

SCOPE OF APPROVAL This approval states that the aforementioned window satisfies the requirements set for windows by the National Building Code of Finland with regard to fire-proofing as follows when the classification is done according to classification standard SFS-EN-13501-2:

- The MSEA window satisfies the requirements of fire classes **E 30, EI 15 and EI 30**, depending on glazing.
- The MSEP window satisfies the requirements of fire classes **E 30, EI 15 and EI 30**, depending on glazing.

* = glazing of each fire class is presented in the glazing section of this decision

CONDITIONS OF APPROVAL

Dimensions and structure of windows The maximum allowable width of the window is 2390 mm and the maximum height of the frame is 2390 mm. However the maximum area of the window is 2.4 m². The minimum depth of the frame is 115 mm.

MSEA- FIRE PROTECTION WINDOW

The frame is made of pinewood and an aluminum profile. The inner sash is made of pinewood and the outer sash is made of an aluminum profile.

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The minimum density of the pinewood is 475 kg/m³. Depending on the required fire class, the fire glazing element of the inner sash is special glass equipped with Fireswiss Cool 30-15- or Fireswiss Foam 30-15 fire protection glass and 6 mm laminated selective glass Euroglass GmbH. The spacer bar installed with Fireswiss Foam 30-15 fire protection glass can be a 15 mm RST spacer bar or 16 mm TGI spacer bar.

MSEP- FIRE PROTECTION WINDOW

The frame and both inner and outer sash are made of pine. The minimum density of the pinewood is 475 kg/m³. Depending on the required fire class, the fire glazing element is special glass equipped with Fireswiss Cool 30-15- or Fireswiss Foam 30-15 fire protection glass and 6 mm laminated selective glass Euroglass GmbH. The seals of the frame can be silicone Ø 9 mm and QLon 3094 or 3076

In other respects the structure is according to drawings.

Glazing

MSEA – E30/EI15- and MSEP – E30/EI15- FIRE PROTECTION WINDOW

The glass of the inner sash is special glass with the following structure: Inner pane is Fireswiss Cool 30-15 fire protection glass, in between is a 15 mm thick stainless steel spacer or 16 mm thick TGI spacer and the outer glass is 6 mm thick selective glass.

The glass of the outer sash can be 4 mm or 6 mm thick float glass.

MSEA – EI30- and MSEP – EI30- FIRE PROTECTION WINDOW

The glass of the inner sash is special glass with the following structure: Inner pane is Fireswiss Cool 30-15 fire protection glass, in between is a 15 mm thick stainless steel spacer or 16 mm thick TGI spacer and the outer glass is 6 mm thick laminated selective glass.

The glass of the outer sash can be 4 mm or 6 mm thick float glass.

Special glass (fire glass) must include the manufacturer's trademark, which include the following information:

- Manufacturer of glass
- Product name/type of glass
- Thickness of glass
- Date of manufacture of glass

Glass panes shall be installed and mounted in accordance with drawings.

Fittings

The inner sash is hinged with five M8 x 35/12 hinges when the hinge side is 2390 mm. If the window is made smaller, the number of hinges can be reduced. The number of hinges relative to the size of the window is shown in drawing TH16-7.

Locks

A vertical section contains four locks in both the upper and lower section, each of which has one SGI1901ZN lock. The number of locks relative to the size of the window is shown in drawing TH16-7.

Handles

There is no fixed handle in the window because it is a so-called window openable with special tools.

Parts that keep the window together, such as hinges and locks, must be steel or alloy with a melting point above 850 °C.

Installation

The windows may be installed into an opening in a lightweight wall or one made of concrete, brick or other masonry with a minimum density of 550 kg/m³. The width and height of the window mounting opening may be no more than 40 mm greater than the corresponding frame dimensions.

The spaces between the frame and mounting opening of the wall can be sealed with A1- or A2-s1,d0 class rockwool and Makroflex FR77- or Sealfire W350 fire polyurethane foam.

The side pieces of the frame are attached to the surrounding structure with steel screws that are at least 6 x 120 mm in size. The number and location of screws are shown in drawing TH16-8 OTHER SIDE (RT-card, RT 41-10095).

Installation of the windows is shown in drawing TH16-8.

The manufacturer must include installation instructions in window shipments.

Other conditions

No curtains or blinds may be attached to the windows, and there shall be no penetrations through the structure.

VERIFICATION OF QUALITY

CONTROL

Certification authority of Quality VTT Expert Services Oy, Espoo.

Quality assurance agreement

VTT Expert Services Oy, Espoo.

Quality control agreement signed on 1 April 2014 or updated after then VTT-A-00034-14.

MARKING

The following permanent markings must be made on a plate attached to a visible surface of a frame; its size may be 25 mm x 55 mm x 0,5 mm, for example:

- type approval marking (model appended);

- VTT-RTH-00090-10

- E 30 or EI 15 tai EI 30
- name of manufacturer

- year of manufacture

The plate may have only one fire class marking.

PERIOD OF VALIDITY

The extended decision shall enter into force on 17 Feb. 2017 and is valid until further notice, but not later than 14 March 2021.

If the product becomes under the scope of application of CE marking, the validity of the type approval ends.

NOTES

The expanded decision which is now made contains the following changes to the decision that is dated 15 March 2016:

- Frame size of windows is enlarged
- Types of frame seals to be used are clarified
- Density of pinewood is clarified

By virtue of Section 18 of the Act on the Type Approval of Certain Construction Products, VTT Expert Services Oy acts as a type approval body authorized by the Ministry of the Environment and as a certification body accredited by FINAS (S017).

WITHDRAWAL OF TYPE APPROVAL

The type approval shall be withdrawn if

- the building product does not satisfy the essential technical requirements of the Land Use and Building Act or regulations issued under it.
- the importer or manufacturer or its authorized representative does not remedy deficiencies found in the verification of quality control.
- The Finnish Safety and Chemicals Agency (Tukes) has prohibited the use of the building product or ordered the importer or manufacturer or its authorized representative to take measures to remove the product from the market.



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THIS DOCUMENT HAS BEEN SIGNED ELECTRONICALLY

ANNEXES

Type approval marking
Instructions for rectification and appeal

CC

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