**Product performance characteristics: fire windows of the Aluprof MB-86EI system**

| Essential characteristics | The requirements of EN 16034:2014 standard | Level and/or class |
|---|---|---|
| Window height x width (maximum dimensions) | - | Vertical layout:<br>Sash: 2650 x 1850 mm.<br>Leaf: 2400 x 1600 mm.<br>Horizontal layout:<br>Sash: 1550 x 2650 mm.<br>Leaf: 1300 x 2400 mm. |
| Overlight and sidelight height x width (maximum dimensions) | - | Overlight: 1100 x 2500 mm.<br>Sidelight: 2500 x 1300 mm. |
| Fire resistance | **4.1** | $EI_2$30/EW30 |
| Smoke resistance | 4.2 | NPD |
| Release capacity | 4.3 | NPD |
| Self-closing | 4.4 | NPD |
| Persistence of release capacity | 4.5.1 | NPD |
| Durability of self-closing with respect to degradation | 4.5.2.1 | NPD |
| Durability of self-closing with respect to ageing (corrosion) | 4.5.2.2 | NPD |

The performance characteristics resulting from the harmonized standard EN 14351-1:2006 + A2:2016, subject to the system of assessment and verification of performance characteristics 3, should be taken from the declaration of performance of the Product Manufacturer.

**Description of product:**

Aluminium, profile, single-leaf and double-leaf windows, swing, hinged, hinged and swing, swing and hinged are made of aluminium profiles with a three-chamber structure of the Aluprof MB-86EI system. The structural depth of the sash profile is 77 mm, and the window leaf profile 86 mm or 77 mm (for profiles K718709X and K718719X). The profiles have thermal inserts made of glass fibre reinforced polyamide.

On the profile of the window leaf, sash, passage, as well as the transoms and passages of overlight and sidelight there is a strip of intumescent material with a 13 x 1.9 mm cross section of the Flexpan type from Rolf Kuhn or the Pyroplex type from Carboline. The sash has an EPDM gasket from Trelleborg. An intumescent gasket of Pyroplex type from Carboline is placed in the window leaf.

The leaf is filled with a composite glass pane based on a 20 mm thick Polflam EI30 fire protection pane. The total thickness of the glass set is:
- a minimum of 41 mm in the case of single-chamber panes of the construction type: POLFLAM EI30/16/ESG 5,
- a minimum of 54 mm in the case of double-chamber panes of the construction type: POLFLAM EI30/12/ESG5/12/ESG5.

Maximum filling dimensions (width x height): 2285 x 2285 mm, minimum filling dimensions (width x height): 250 x 250 mm. Maximum dimensions of composite panes in overlight (width x height): 2399 x 966 mm, maximum dimensions of composite panes in the sidelight (width x height): 1171 x 2376 mm. Overlights and sidelights can be filled with opaque panels of maximum dimensions (width x height): 1250 x 2034 mm and construction: steel sheet of 1.0 mm thickness / GKF board with thickness of 15 mm / Aerogel board / GKF board with thickness of 15 mm / steel sheet with thickness of 1.0 mm. Panel thickness: 47-58.75 mm. Minimum panel dimension: 250 x 250 mm.

The window is equipped with:
- ROTO FRANK window fittings: Roto NT Design RC2, Roto AL Design RC2 or Roto AL RC2,
- Window fittings of WINKHAUS type: activPilot Giant RC2,
- closing device (chain drive) type Aumüller KS4 and FVR locking actuator.

Detailed technical parameters and conditions for the final classification can be found in the *Classification Report on fire resistance in accordance with PN-EN 13501-2:2016-07 (ITB Classification Report No. 1036.1/18/R360NZP*, issued on 20 December 2018).

**Mount**

Fire protection windows of the Aluprof MB-86EI system can be built into a rigid standard fastening structure with a density of minimum 600 kg/m$^3$ and a thickness of minimum 100 mm or aluminium profile wall from the Aluprof MB-86EI system.

**Intended use:**

For use as external windows for closing openings in walls that require fire resistance.