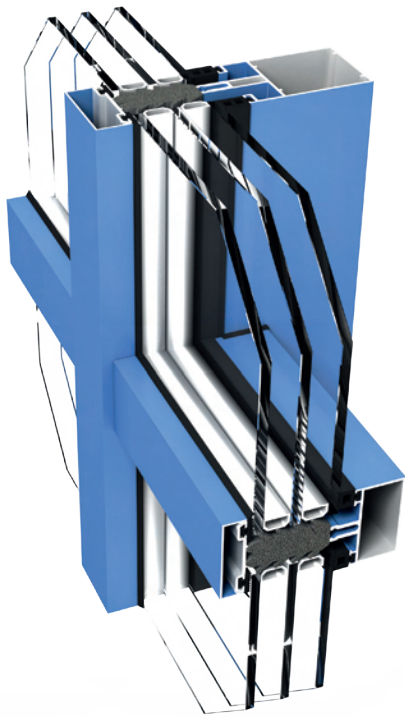


PONZIO PF152HI



This system featuring improved thermal insulation characteristics is designed for the construction of curtain walls and window walls as well as roofs, roof lights and other types of spatial structures in apartment, industrial and public buildings.

The PONZIO PF152HI system is based on the mullion-transom load bearing structure of the PONZIO PF152 curtain wall with the addition of plastic thermal insulation inserts. The structure of the curtain is fixed to the building structure (foundation/ceiling slabs) with mechanical fasteners. The system additionally includes plastic thermal breaks, EPDM gaskets, accessories and joints necessary for end product prefabrication and assembly.

The PONZIO PF152 system features exceptionally good thermal and sound insulation characteristics due to ABS thermal spacers and a new design of in-chamber EPDM gaskets. The glazing range, depending on employed transoms

and gaskets, is $2 \div 66$ mm.

The system includes a variety of different profiles with a wide range of moments of inertia ($6,42 \div 4211,00$ cm⁴ for mullions, $6,36 \div 541,73$ cm⁴ for transoms), taking into account possible mullion and transom spacing, external loads and methods of fixing.

Profile surfaces are treated for corrosion protection with polyester powder coating (QUALICOAT certified) or anodizing (QUALANOD certified). Available colours include: the full RAL palette, OLIVER and RUSTICO colours and wood structure coating; as well as natural aluminium, champagne, olive, gold and bronze anodized layers. Minimum coating layer thickness (acc. to PN-EN ISO 2360:2006/ PN-EN ISO 2808:2008) is 60 µm for powder coating and 20 µm for anodizing.

The PONZIO PF152 system is compatible with other PONZIO aluminium systems, enabling joint structures, allowing a greater design freedom and increased aluminium joinery functionality.



Parametry Techniczne

/Technical Parameters

/Technische Parameter

1. Ramowy współczynnik przenikania ciepła:

/Frame heat transfer coefficient:
/Wärmedurchgangskoeffizient:
od /from /von $U_f = 0,65 \text{ (W/m}^2\text{K)}$

2. Przepuszczalność powietrza:

/Air permeability:
/Luftdurchlässigkeit:
 $AE = 1200 \text{ Pa, wg /acc. to /gem. PN-EN 12152}$

3. Wodoszczelność:

/Watertightness:
/Schlagregendichtheit:
 $RE = 1200 \text{ Pa, wg /acc. to /gem. PN-EN 12154}$

4. Odporność na obciążenie wiatrem:

/Resistance to wind load:
/Widerstandsfähigkeit bei Windlast - zulässige Last:
 $1600 \text{ Pa, wg /acc. to /gem. PN-EN 13116}$

5. Odporność na uderzenie wiatrem:

/Safety load:
/Widerstandsfähigkeit bei Windlast - erhöhte Last:
 $2400 \text{ Pa, wg /acc. to /gem. PN-EN 13116}$

6. Odporność na uderzenie (szyby 6/16/33.1 i 8/14/33.1):

/Resistance to impact (glasses 6/16/33.1 and 8/14/33.1):
/Stoßfestigkeit (Verglasung 6/16/33.1 und 8/14/33.1):
klasa /class /Klasse I5/E5, wg /acc. to /gem. PN-EN 14019

7. Izolacyjność akustyczna:

/Sound insulation:
/Schallschutz:
 $R_w = 33-54 \text{ dB, wg /acc. to /gem. PN-EN 13830:2005}$
(zależy od zastosowanego wypełnienia lub indywidualnego audytu)
(depending on the applied filling and/or individual audit)
(von der Füllung und dem Einzelaudit abhängig)

8. Odporność na włamanie:

/Burglar resistance:
/Einbruchschutz:
- okna stałe: klasa RC3 dla szyby P5A i RC2 dla szyby P4A wg PN-EN 1627
/- fixed windows: RC3 class for P5A glazing and RC2 for P4A glazing acc. to PN-EN 1627
/- Festverglasung: Klasse RC3 für Scheibe P5A und RC2 für Scheibe P4A gem. PN-EN 1627
- dla okien systemu PE68, PE78, PE78N (wraz z wersjami +, HI, HI+): klasa RC3 dla szyby P5A, wg PN-EN 1627
/- for PE68, PE78, PE78N windows (incl. +, HI, HI+ versions): RC3 class for P5A glazing, acc. to PN-EN 1627
/- für Fenster in Systeme PE68, PE78, PE78N (mit +, HI, HI+ Varianten) Klasse RC3 f. Scheibe P5A, gem. PN-EN 1627
- dla okien systemu PE60, PE68, PE78, PE78N (wraz z wersjami +, HI, HI+): klasa RC2 dla szyby P4A, wg PN-EN 1627
/- for PE60, PE68, PE78, PE78N windows (incl. +, HI, HI+ versions): RC2 class for P4A glazing, acc. to PN-EN 1627
/- für Fenster in Systeme PE60, PE68, PE78, PE78N (mit +, HI, HI+ Varianten) Klasse RC2 f. Scheibe P4A, gem. PN-EN 1627
- dla drzwi systemu PE68, PE78, PE78N (wraz z wersjami +, HI, HI+): klasa RC2 dla szyby P4A, wg PN-EN 1627
/- for PE68, PE78, PE78N windows (incl. +, HI, HI+ versions): RC2 class for P4A glazing, acc. to PN-EN 1627
/- für Fenster in Systeme PE68, PE78, PE78N (mit +, HI, HI+ Varianten) Klasse RC2 f. Scheibe P4A, gem. PN-EN 1627

9. Grubość wypełnienia i maksymalne wymiary kwater jak dla fasady PF152.

/Glazing thickness and maximum dimensions same as in PF152.
/Füllungstärke und maximale Feldgröße genauso wie für PF152 Fassade.

Wyniki przeprowadzonych badań potwierdzają aprobaty i certyfikaty nadane przez takie instytucje jak:

/Test results confirmed by approvals and certificates issued by:
/Die Ergebnisse der Prüfungen bestätigen Zustimmungen und Zertifikate von folgenden Institutionen:
ITB, IMP, ISTDIL, IFT ROSENHEIM



This insulated aluminium profile system is designed for the construction of vestibules, bay windows, window-and-door sets, windows (fixed, casement, hopper, pivot, turn-tilt and tilt-slide), balcony windows, doors and other external joinery. It features high functional and esthetical characteristics as well as good thermal insulation. It is suitable for both apartment buildings and public buildings.

PONZIO PE78N profiles feature a three-cavity design. Improved thermal insulation is ensured by a wider, 34 mm (door profiles) or 42 mm (window profiles) thermal break and a central EPDM gasket. The gasket additionally ensures a proper seal of the sash-frame joint. The three-cavity design ensures profile stiffness and enables large dimension constructions.

The system can accommodate single and multiple glazing units, aluminium panels, sandwich panels, furniture boards (flakeboards, MDF etc.), drywall and polycarbonate boards of 23 ÷ 61 mm thickness.

Profile depth is 78 mm for frames, transoms and mullions and 86 mm for window sashes. Resulting constructions feature frame-leaf joints that are flush on one side. Profile bending is possible, enabling arched constructions (round, oval, ellipse etc.).

Available coating options include anodizing and powder coating. Powder coating is available in all RAL colours, while anodized oxide layers are available in: natural aluminium, champagne, olive, gold and bronze. Wood-like powder coating is also an option, also in bicolour.

PONZIO PE78N products are fully compatible with other PONZIO systems. Many system elements are common, including: glazing beads, glazing and closing gaskets, hardware etc. Glazing gaskets setting and sealing the filling inside the frame as well as closing gaskets



sealing the joint between the sash and frame should be made of EPDM synthetic rubber.

PONZIO PE78N products should be equipped with complete hardware adjusted for sash weight and operating loads, sold by manufacturers, such as: Sobinco, G-U, Iseo, Cisa. Winkhaus hardware features gap ventilation, enabling natural and energy efficient air flow.

Each external PONZIO PE78N construction should include proper drainage and ventilation systems for glazing rebates and sash/leaf-frame joints. Drain holes should be covered with plastic or aluminium covers, which can be coated in the same colour as the profiles.



Parametry Techniczne

/Technical Parameters

/Technische Parameter

I DRZWI OTWIERANE NA ZEWNĄTRZ /OUTWARD OPENING DOORS /TÜR AUSWÄRTS ÖFFNEND

1. Przepuszczalność powietrza: /Air permeability: /Luftdurchlässigkeit:
klasa /class /Klasse 4, wg /acc. to /gem. PN-EN 1026
2. Wodoszczelność: /Watertightness: /Schlagregendichtheit:
klasa /class /Klasse 8A, wg /acc. to /gem. PN-EN 1027
3. Odporność na obciążenie wiatrem: /Resistance to wind load: /Widerstandsfähigkeit bei Windlast - zulässige Last:
klasa /class /Klasse C3, wg /acc. to /gem. PN-EN 12211
4. Ramowy współczynnik przenikania ciepła: /Frame heat transfer coefficient: /Wärmedurchgangskoeffizient:
 $U_f = 2,1 \div 2,4$ (W/m²*K)
5. Grubość wypełnienia: /Glazing thickness: /Füllungstärke:
23÷61 mm

II DRZWI OTWIERANE DO WEWNĄTRZ /INWARD OPENING DOORS /TÜR EINWÄRTS ÖFFNEND

1. Przepuszczalność powietrza: /Air permeability: /Luftdurchlässigkeit:
klasa /class /Klasse 4, wg /acc. to /gem. PN-EN 1026
2. Wodoszczelność: /Watertightness: /Schlagregendichtheit:
klasa /class /Klasse 5A, wg /acc. to /gem. PN-EN 1027
3. Odporność na obciążenie wiatrem: /Resistance to wind load: /Widerstandsfähigkeit bei Windlast - zulässige Last:
klasa /class /Klasse C3, wg /acc. to /gem. PN-EN 12211
4. Grubość wypełnienia: /Glazing thickness: /Füllungstärke:
23÷61 mm

III OKNA /WINDOWS /FENSTER

1. Przepuszczalność powietrza: /Air permeability: /Luftdurchlässigkeit:
klasa /class /Klasse 4, wg /acc. to /gem. PN-EN 12207
2. Wodoszczelność: /Watertightness: /Schlagregendichtheit:
klasa /class /Klasse E1650, wg /acc. to /gem. PN-EN 12208
3. Odporność na obciążenie wiatrem: /Resistance to wind load: /Widerstandsfähigkeit bei Windlast - zulässige Last:
klasa /class /Klasse C5, wg /acc. to /gem. PN-EN 12210
4. Odporność na włamanie: /Resistance to burglary: /Einbruchschutz:
- klasa RC3 (z szybami klasy P5A wg PN-EN 356, pojedynczymi lub w zespole) wg PN-EN 1627
/- class RC3 (with P5A glazing acc. to PN-EN 356, single or multiple glazing units) acc. to PN-EN 1627
/- bei RC3 Klasse (mit P5A Scheiben nach PN-EN 356, einzeln oder verbunden) nach Norme PN-EN 1627
5. Ramowy współczynnik przenikania ciepła: /Frame heat transfer coefficient: /Wärmedurchgangskoeffizient:
 $U_f = 1,3 \div 2,4$ (W/m²*K)
6. Grubość wypełnienia: /Glazing thickness: /Füllungstärke:
23÷69 mm

Parametry techniczne dla ślusarki o podwyższonej izolacyjności termicznej

/Technical parameters for variants with improved thermal insulation

/Technische Parameter für hochwärmgedämmten Aluminiumkonstruktionen

	Izolacyjność termiczna /Thermal insulation /Wärmedurchgangskoeffizient		Przepuszczalność powietrza /Air permeability /Luftdurchlässigkeit		Odporność na obciążenie wiatrem /Resistance to wind load /Widerstandsfähigkeit bei Windlast		Wodoszczelność /Watertightness /Schlagregendichtheit	
	Drzwi /Doors /Türen	Okna /Windows /Fenster	Drzwi /Doors /Türen	Okna /Windows /Fenster	Drzwi /Doors /Türen	Okna /Windows /Fenster	Drzwi /Doors /Türen	Okna /Windows /Fenster
PE 78N+	1,9÷2,1	1,0÷1,9	klasa /class /Klasse 4	klasa /class /Klasse 4	klasa /class /Klasse C3	klasa /class /Klasse C5	klasa /class /Klasse 8A i /and /und 5A	klasa /class /Klasse E1650
PE 78NHI	1,5÷2,8	0,9÷2,2						
PE 78NHI+	1,4÷1,8	0,7÷1,6						