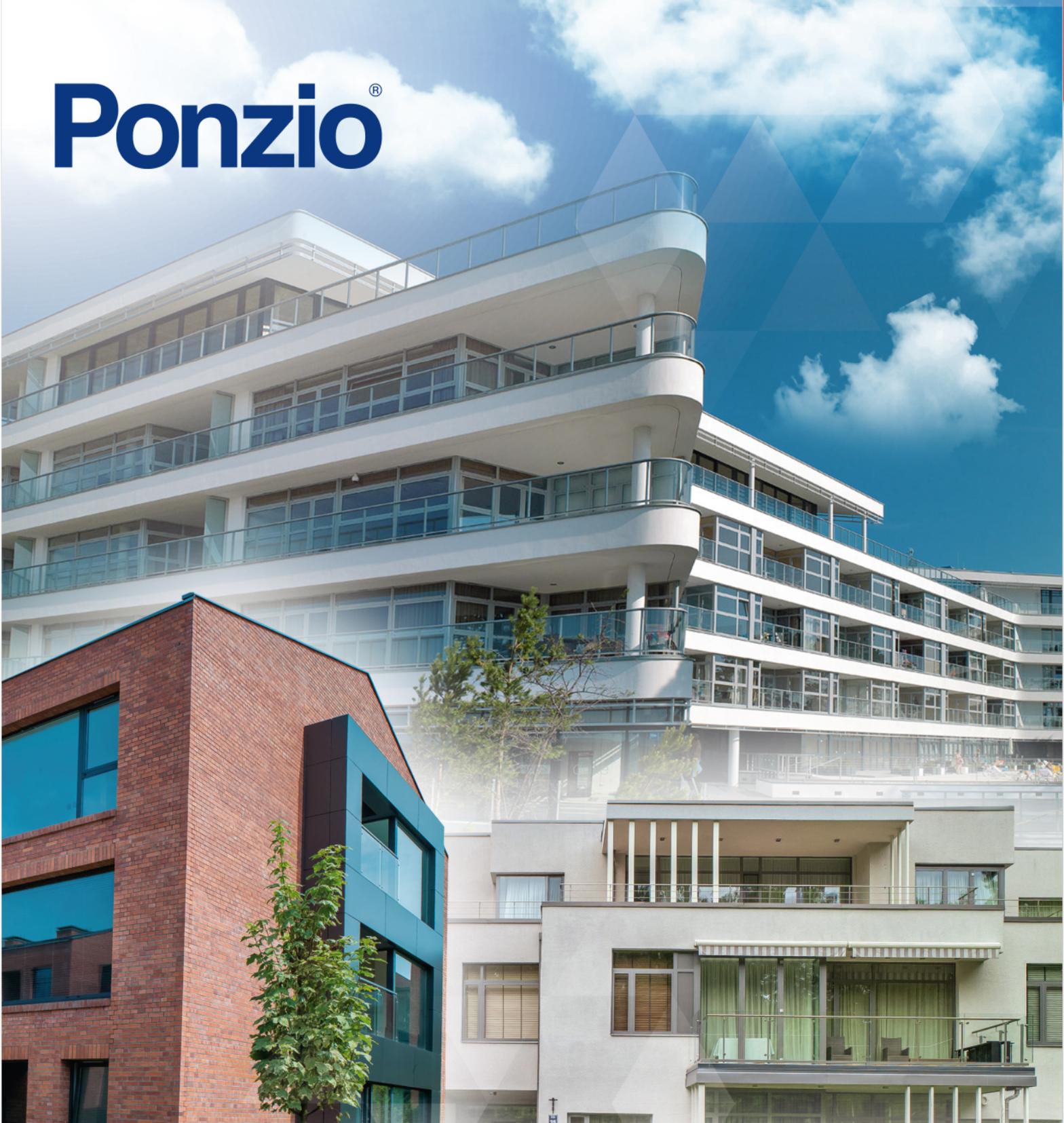


Ponzio®



ALUMINIUM SYSTEMS

EXTERNAL
WINDOWS AND DOORS

PONZIO PE68

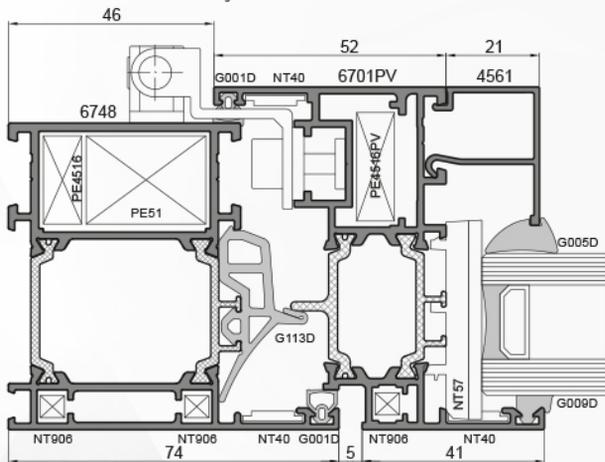


$$U_w = 0,93 \text{ W/m}^2\text{K}$$

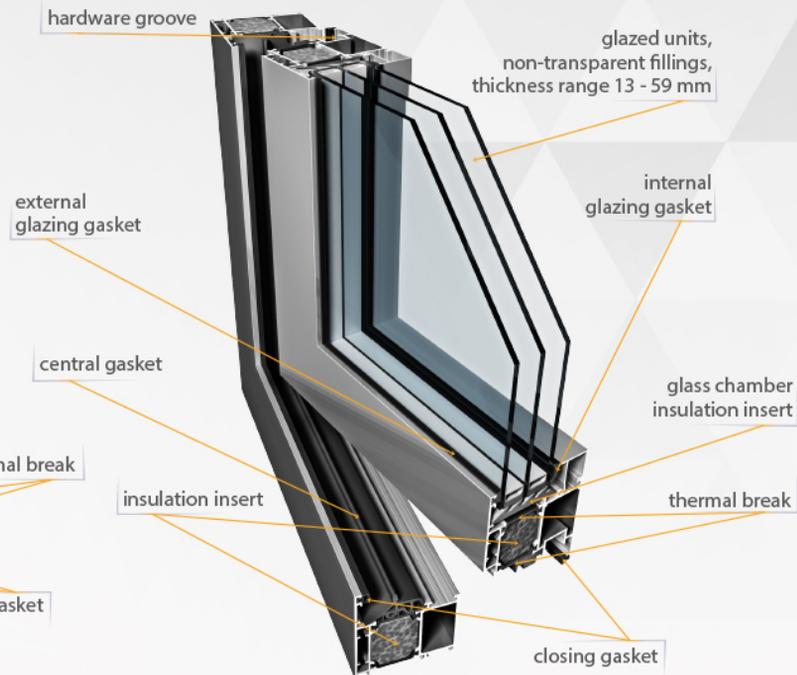
*calculated for window: W 1480 x H 2180 mm
 $U_g = 0,5 \text{ W/m}^2\text{K}$, triple glazed unit

$$U_w = 1,32 \text{ W/m}^2\text{K}$$

$U_g = 1,0 \text{ W/m}^2\text{K}$, double glazed unit

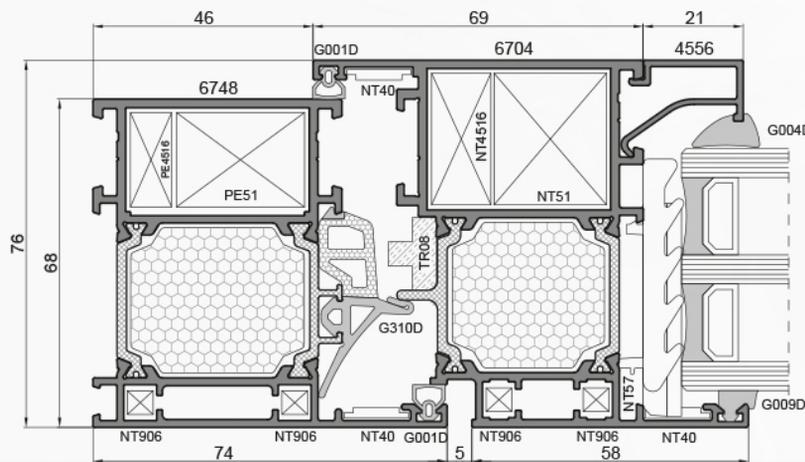


PONZIO PE68HI



$$U_w = 0,84 \text{ W/m}^2\text{K}$$

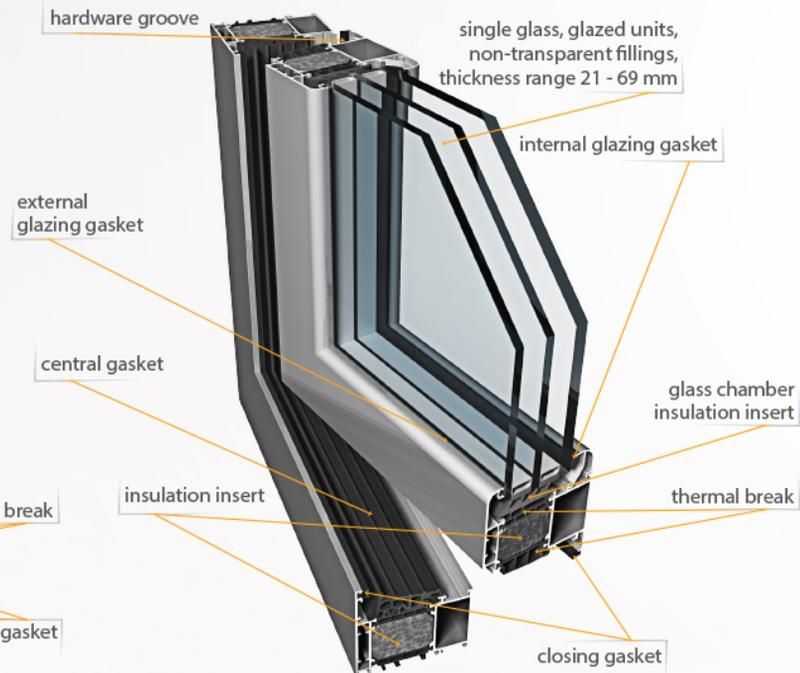
*calculated for window: W 1480 x H 2180 mm i
 $U_g = 0,5 \text{ W/m}^2\text{K}$ triple glazed unit



- three chamber profiles system with very good insulation properties
- profiles adjusted to wide variety of windows hardware
- window frame profiles depth is 68 mm, window sash profiles depth is 76 mm
- 32 mm thermal break and one-component or two-component central gaskets provide good thermal parameters
- three chamber design provides profiles with high stiffness resulting in creation of constructions of large dimensions
- possibility of alignment window sash with frame on the external side
- possibility of creating arched constructions
- wide variety of corners connections
- gaskets made of EPDM synthetic rubber
- PE68+ and PE68HI variants of system depending on applied insulation inserts
- wide variety of types of windows, for instance, fix windows, tilt and turn windows, outward opening windows, hidden sash windows etc.

PONZIO PE78N

PONZIO PE78NHI



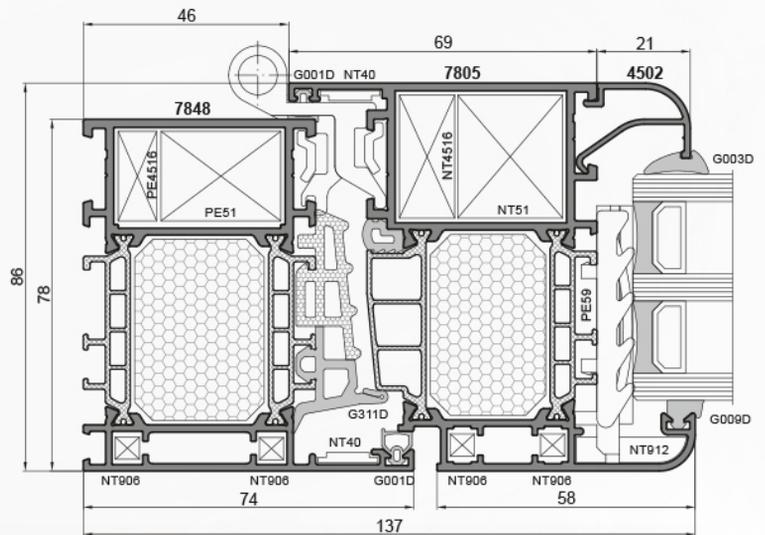
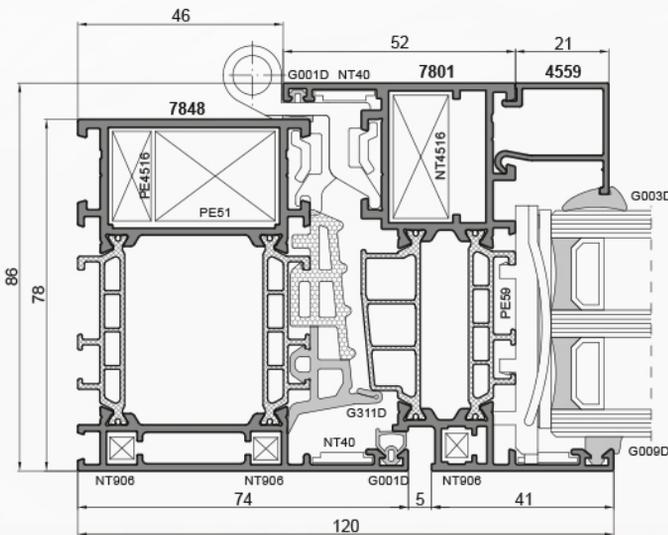
$U_w = 0,88 \text{ W/m}^2\text{K}$

*calculated for window
W 1480 x H 2180 mm i $U_g = 0,5 \text{ W/m}^2\text{K}$
triple glazed unit



$U_w = 0,74 \text{ W/m}^2\text{K}$

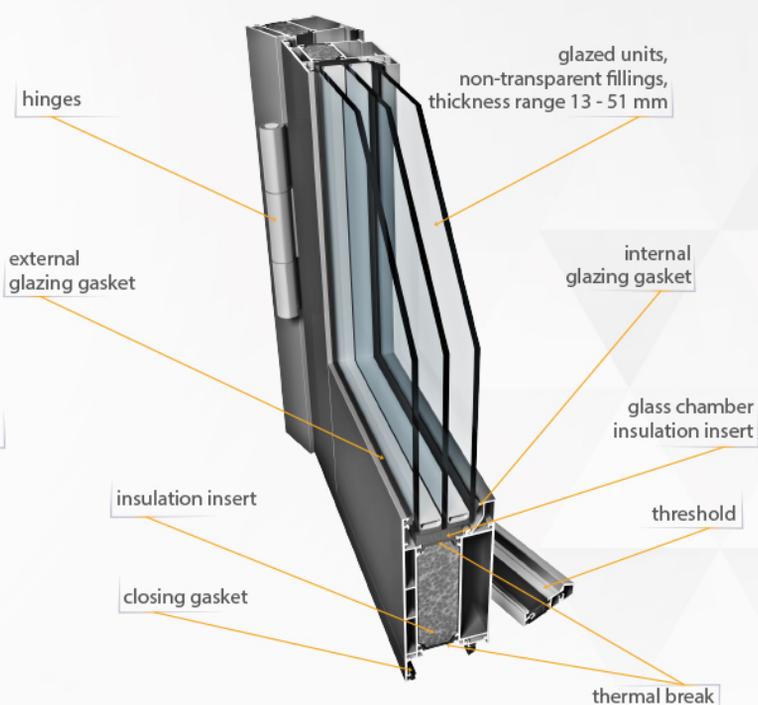
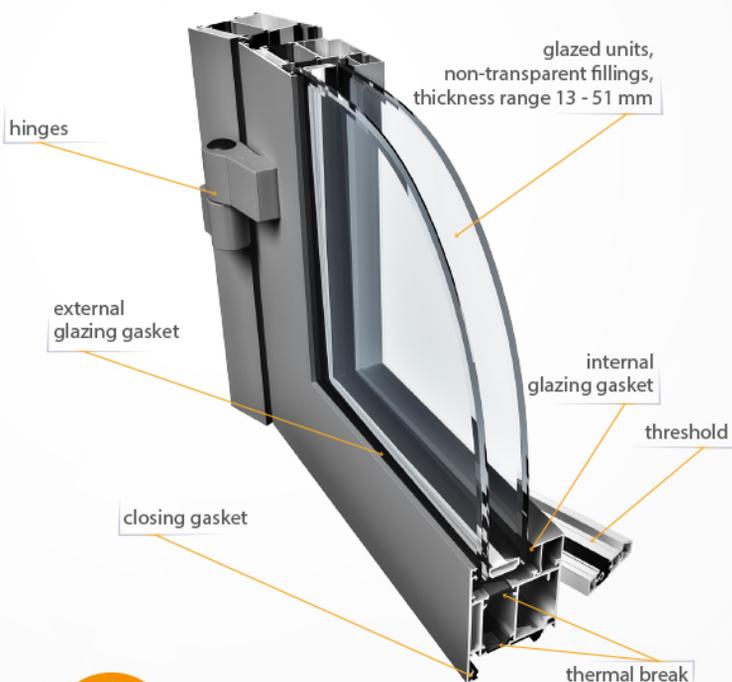
*calculated for window
W 1480 x H 2180 mm i $U_g = 0,5 \text{ W/m}^2\text{K}$
triple glazed unit



- three chamber profiles system with very good insulation properties
- profiles adjusted to wide variety of windows hardware
- window frame profiles depth is 78 mm, window sash profiles depth is 86 mm
- 42 mm thermal break and two-component central gaskets provide good thermal parameters
- three chamber design provides profiles with high stiffness resulting in creation of constructions of large dimensions
- possibility of alignment window sash with frame on the external side
- possibility of creating arched constructions
- wide variety of corners connections
- gaskets made of EPDM synthetic rubber
- PE78N+, PE78NHI and PE78NHI+ variants of system depending on applied insulation inserts
- wide variety of types of windows, for instance, fix windows, tilt and turn windows, outward opening windows, hidden sash windows etc

PONZIO PE68

PONZIO PE68HI



$U_d = 1,13 \text{ W/m}^2\text{K}$

*calculated for door: W 1230 x H 2180 mm
 $U_g = 0,5 \text{ W/m}^2\text{K}$, triple glazed unit

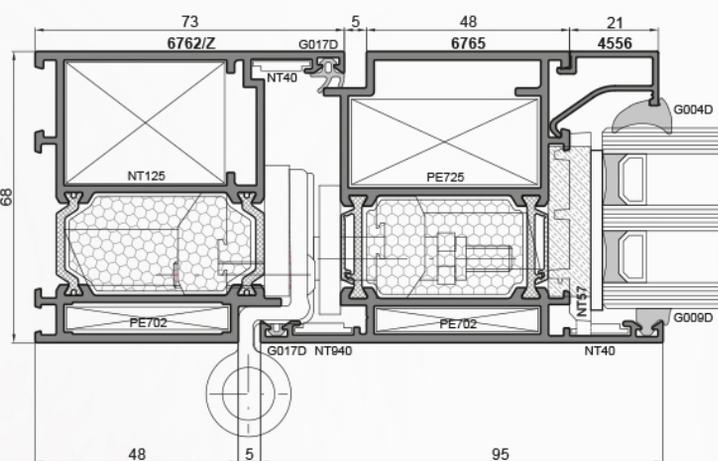
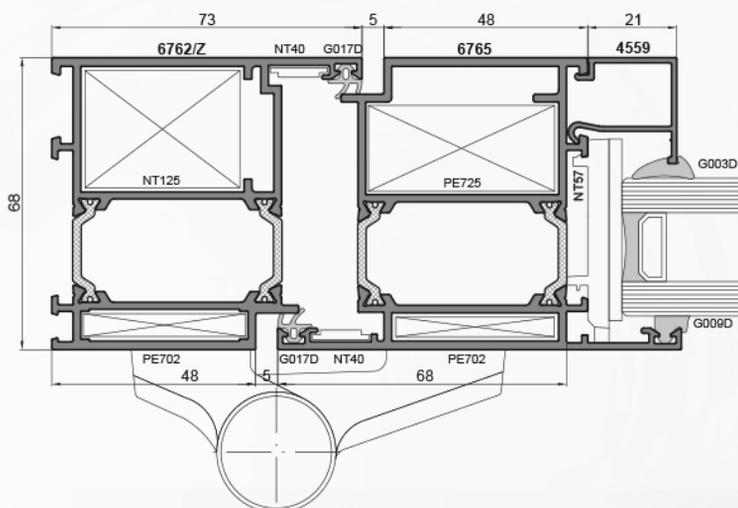
$U_d = 1,48 \text{ W/m}^2\text{K}$

$U_g = 1,0 \text{ W/m}^2\text{K}$, double glazed unit



$U_d = 1,06 \text{ W/m}^2\text{K}$

*calculated for door
 W 1230 x H 2180 mm i $U_g = 0,5 \text{ W/m}^2\text{K}$
 triple glazed unit



- three chamber profiles system with very good insulation properties
- coplanar doors available (18 mm groove clearance)
- same glazing beads for doors and windows
- 24 mm thermal breaks
- door frame profiles depth is 68 mm, door leaf profiles depth is 68 mm
- three chamber design provides profiles with high stiffness resulting in creation of constructions of large dimensions
- door leaves are aligned with door frame
- profiles construction enable easy connection between doors and windows
- wide variety of corners connections
- possibility of creating arched constructions
- PE68+ and PE68HI variants of system depending on applied insulation inserts
- wide variety of fittings

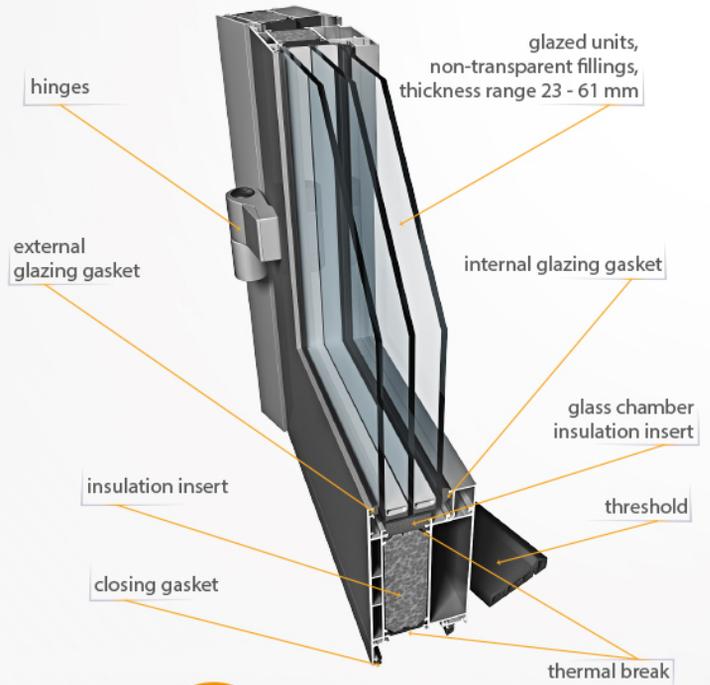
PONZIO PE78N



$$U_d = 1,10 \text{ W/m}^2\text{K}$$

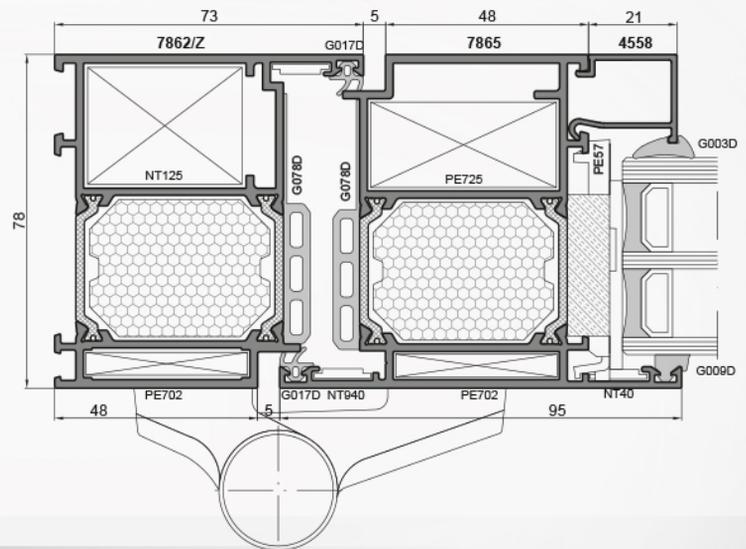
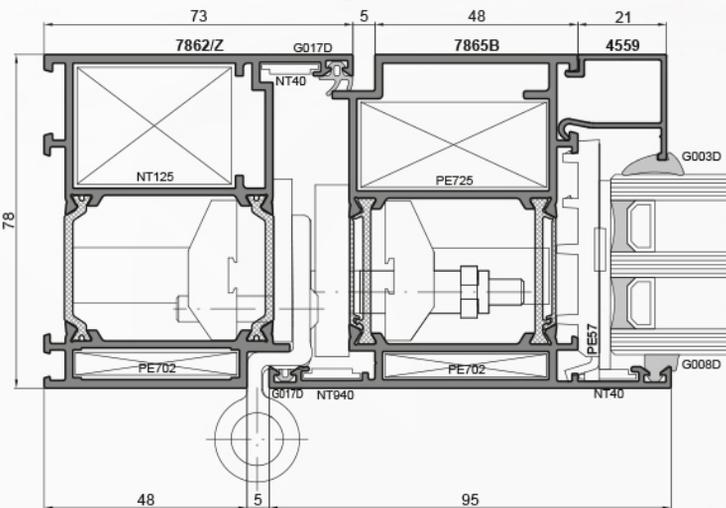
*calculated for door
W 1230 x H 2180 mm i $U_g = 0,5 \text{ W/m}^2\text{K}$
triple glazed unit

PONZIO PE78NHI



$$U_d = 0,93 \text{ W/m}^2\text{K}$$

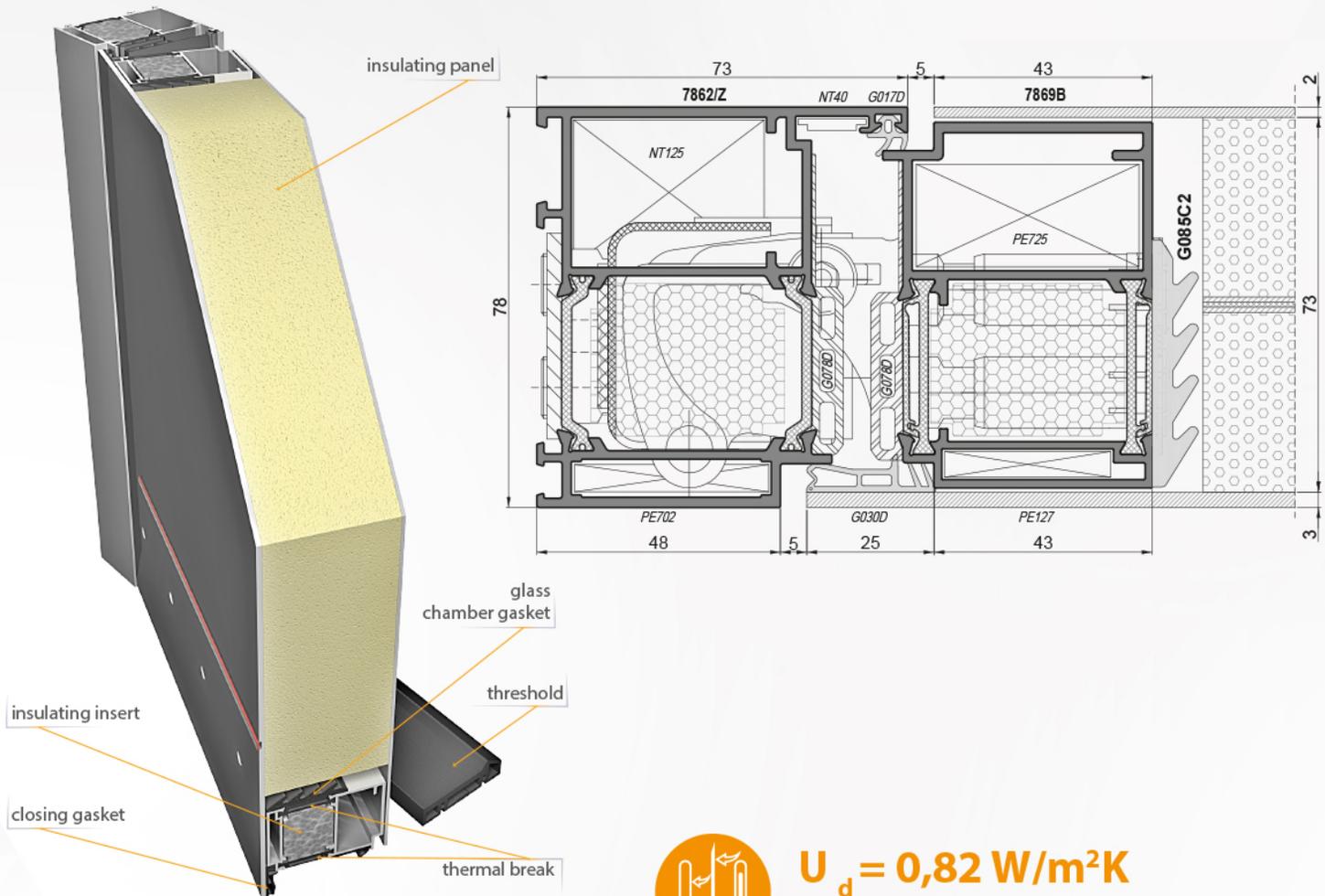
*calculated for door
W 1230 x H 2180 mm i $U_g = 0,5 \text{ W/m}^2\text{K}$
triple glazed unit



- three chamber profiles system with very good insulation properties
- coplanar doors available (18 mm groove clearance)
- same glazing beads for doors and windows
- 34 mm thermal breaks
- door frame profiles depth is 78 mm, door leaf profiles depth is 78 mm
- three chamber design provides profiles with high stiffness resulting in creation of constructions of large dimensions
- door leaves are aligned with door frame
- profiles construction enable easy connection between doors and windows
- wide variety of corners connections
- possibility of creating arched constructions
- PE78N+, PE78NHI and PE78NHI+ variants of system depending on applied insulation inserts
- wide variety of fittings

PANEL DOORS

PONZIO PE78NHI



$$U_d = 0,82 \text{ W/m}^2\text{K}$$

*calculated for door
W 1230 x H 2180 mm, $U_p = 0,45 \text{ W/m}^2\text{K}$

- construction of panel doors is based on Ponzio PE78N and Ponzio PE68 systems
- surfaces of door leaf without visual interruptions on both sides
- door leaf is aligned with door frame
- selection of panel determines decorative appearance of the whole construction
- light and stiff framing combined with decorative panel result in unique appearance of door, making them as an interesting alternative for entrance doors in private housing
- available hinges types: surface hinges, concealed hinges, roller hinges
- end product can be equipped with special fittings for access control such as biometric fingertips locks, code locks and others

PONZIO PE96 PASSIVE PONZIO PE96 PASSIVE+



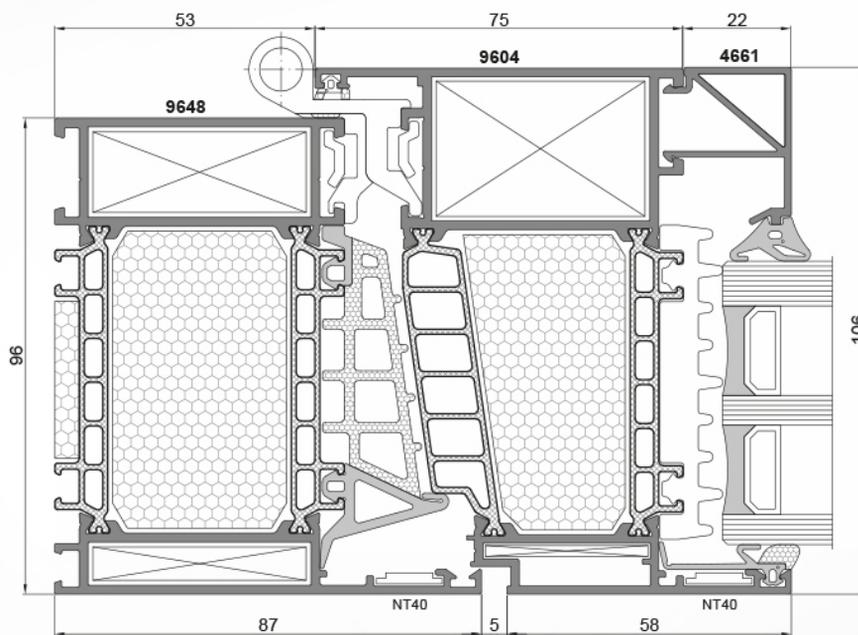
$$U_w = 0,66 \text{ W/m}^2\text{K}$$

*calculated for window
W 1480 x H 2180 mm i $U_g = 0,5 \text{ W/m}^2\text{K}$
triple glazed unit



$$U_w = 0,57 \text{ W/m}^2\text{K}$$

*calculated for window
W 1480 x H 2180 mm i $U_g = 0,4 \text{ W/m}^2\text{K}$
triple glazed unit



- window system meets the highest requirements for thermal insulation
- dedicated for energy-efficient and passive houses ($U_w < 0,8 \text{ W/m}^2\text{K}$)
- window frame profiles depth is 96 mm, window sash profiles depth is 106 mm
- 62 mm multi chamber thermal breaks
- two-component central gaskets provides high thermal insulation
- wide range of glass thickness range 39-74 mm
- to meet different requirements for thermal insulation two variants are available, Passive and Passive+

TECHNICAL PARAMETERS

SYSTEM	Frame thickness (mm)	Sash/leaf thickness (mm)	Max. dimensions of sash/leaf (mm)	Max. weight of sash/leaf (kg)	Glass thickness range (mm)	U_r (W/m^2K)	U_w / U_d (W/m^2K)	Air permeability (class)	Watertightness (class)	Resistance to wind load (class)	Approvals, Certificates		
WINDOWS	PONZIO PE68 standard	68	76	W: 1550 H: 2200	200	frame: 13-51 sash: 13-59	1,9	0,93	4	E1500	C5	Initial test type PN-EN 14351-1 + A1	
	PONZIO PE68HI high thermal insulation	68	76	W: 1550 H: 2200	200	frame: 13-51 sash: 13-59	1,5	0,84	4	E1500	C5	Initial test type PN-EN 14351-1 + A1	
	PONZIO PE78N standard	78	86	W: 1700 H: 2200	200	frame: 23-61 sash: 23-69	1,8	0,88	4	E1650	C5	Initial test type PN-EN 14351-1 + A1	
	PONZIO PE78NHI high thermal insulation	78	86	W: 1700 H: 2200	200	frame: 23-61 sash: 23-69	1,1	0,74	4	E1650	C5	Initial test type PN-EN 14351-1 + A1	
	PONZIO PE96 PASSIVE high thermal insulation	96	106	W: 1700 H: 2300	170	frame: 39-62 sash: 39-74	0,82	0,66	4	E1950	C5	Initial test type PN-EN 14351-1 + A2	
	PONZIO PE96 PASSIVE+ high thermal insulation	96	106	W: 1700 H: 2300	170	frame: 39-62 sash: 39-74	0,73	0,57 ($U_g=0,4$)	4	E1950	C5	Initial test type PN-EN 14351-1 + A2	
	DOORS	PONZIO PE68 standard	68	68	W: 1350 H: 2500	210	sash: 13-51	2,2	1,13	3	8A	C2/B3	Initial test type PN-EN 14351-1 + A1
		PONZIO PE68HI high thermal insulation	68	68	W: 1350 H: 2500	210	sash: 13-51	2,0	1,06	3	8A	C2/B3	Initial test type PN-EN 14351-1 + A1
		PONZIO PE78N standard	78	78	W: 1400 H: 3000	210	sash: 23-61	2,1	1,10	3	9A	C2/B3	Initial test type PN-EN 14351-1 + A1
		PONZIO PE78NHI high thermal insulation	78	78	W: 1400 H: 3000	210	sash: 23-61	1,6	0,93	3	9A	C2/B3	Initial test type PN-EN 14351-1 + A1
PONZIO PE78NHI panel doors		78	78	W: 1400 H: 2500	210	panel: 30-78	1,6	0,82	3	9A	C3	Initial test type PN-EN 14351-1 + A1	

* Heat transfer coefficient U_w has been calculated for window W 1480 x H 2180 mm, and heat transfer coefficient U_d has been calculated for door W 1230 x H 2180 mm, $U_g = 0,5 W/m^2K$ and spacer SWISSPACER V - $\psi = 0,034 W/mK$ for triple glazed unit and $\psi = 0,039 W/mK$ for double glazed unit.