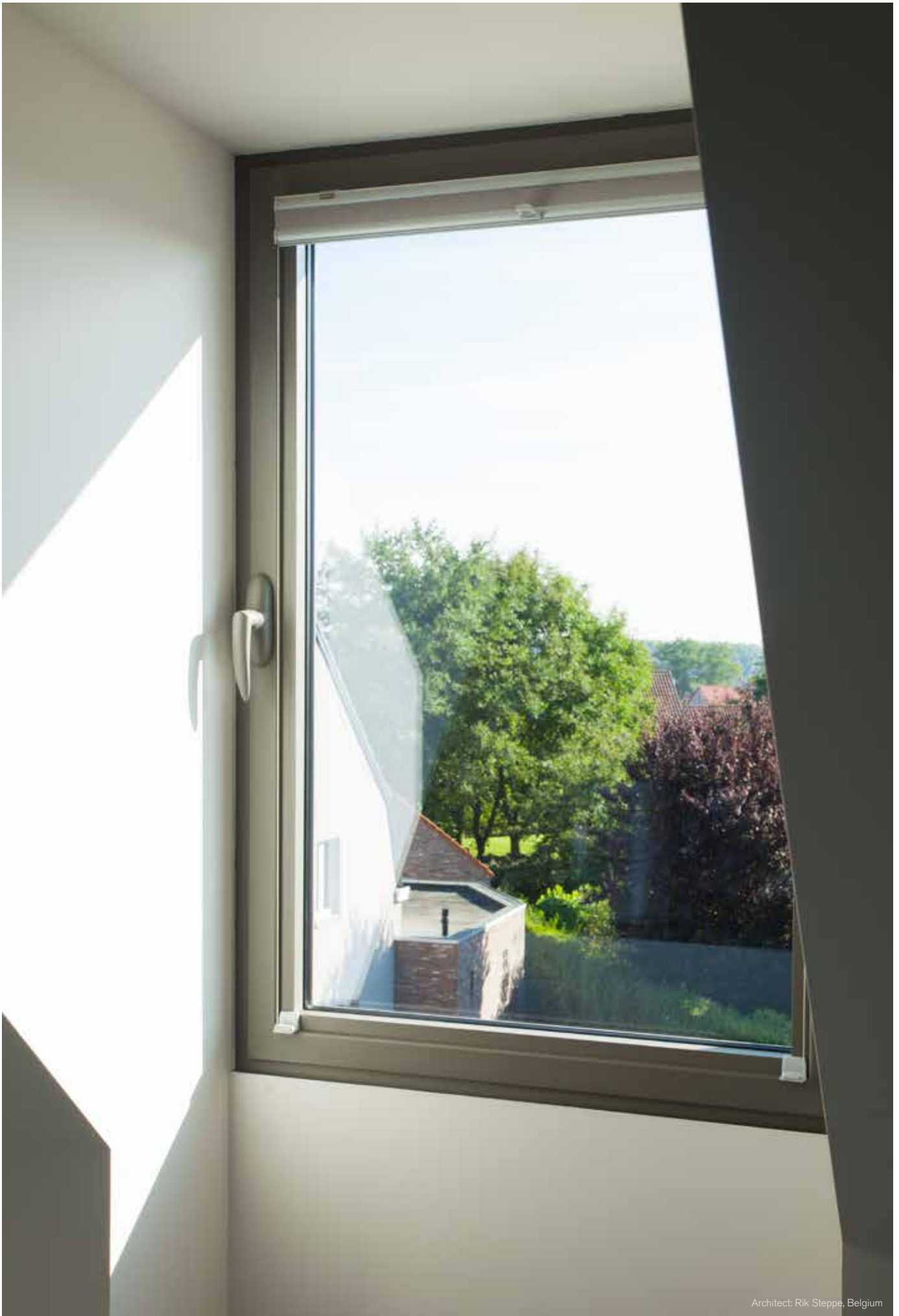


sapa:

Avantis 70

Aluminium Windows and Doors





Architect: Rik Steppe, Belgium

Avantis 70

Aluminium Windows and Doors

Avantis 70 is a high performance thermally broken three-chamber system with a building depth of 70 mm. The Avantis 70 largely surpasses the recent thermal insulation standards and is a comprehensive solution for commercial, residential and industrial projects.

Energy saving on modular basis

- Avantis 70 profiles have 3 chambers, coupled with 35 mm omega shaped, glass fibre reinforced polyamide strips, which reduce thermal conduction. The result is that Avantis 70 achieves a high thermal performance level and improved total insulation, leading to lower total energy consumption, a positive benefit to the environment.
- The system accommodates glazing up to 54 mm for frame and 64 mm for vent, the infill thickness can start from 4 mm.
- Inward opening vents have a coextrusion central gasket for enhanced thermal and acoustic performance.
- All standard shade and ventilation systems can easily be integrated in Avantis 70.

Modular thermal performances

Avantis 70 Basic	2,00 W/m ² K - 2,90 W/m ² K
Avantis 70 I	1,90 W/m ² K - 2,60 W/m ² K
Avantis 70 SI	1,10 W/m ² K - 2,20 W/m ² K
Avantis 70 SHI	1,00 W/m ² K - 2,20 W/m ² K

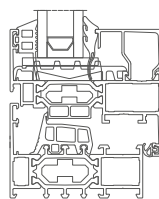




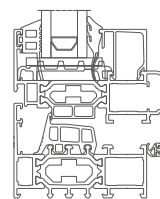
Architect: Michel van Langenhove, Belgium

Design

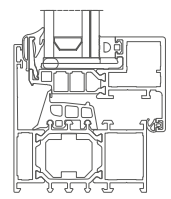
- Avantis 70 is compatible within its profile and hardware range and with other Sapa Building System products such as our curtain wall and conservatory systems.
- Hidden drainage to avoid the requirement for cover caps.
- Doors overlapping, single or double, in- and outward opening.
- Flush doors with threshold, single and double, in- and outwards opening
- A comprehensive range of supplementary finishing profiles allows the fenestration to be integrated perfectly into the building.
- Vent, frame and transom profiles are available in a range of dimensions to meet the needs of stability and design requirements.
- A wide choice of hinges, handles and hardware finalise your specific needs.
- Designer glazing beads add extra finish.
- Available in different designs



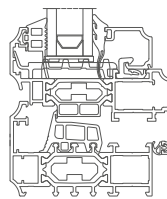
Classic (straight)



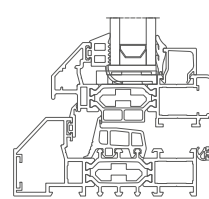
Softline (rounded)



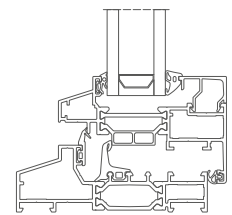
HV (hidden vent)



Rustic (decoration)

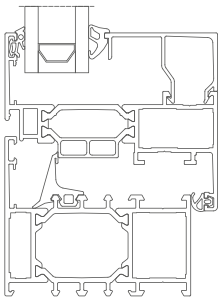


Reko (renovation)

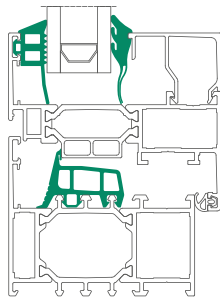


Ligna (steel look)

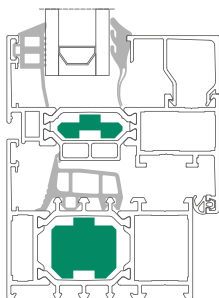
Modular thermicity



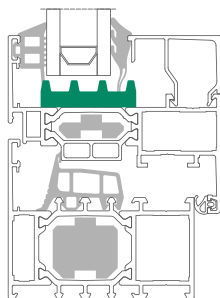
Basic: $U_f = 2,44 \text{ W/m}^2\text{K}$



Insulated: $U_f = 2,16 \text{ W/m}^2\text{K}$



Super Insulated: $U_f = 1,82 \text{ W/m}^2\text{K}$



Super High Insulated: $U_f = 1,70 \text{ W/m}^2\text{K}$

Avantis 70 Basic

- $U_f = 2,00 \text{ W/m}^2\text{K} - 2,90 \text{ W/m}^2\text{K}$

Avantis 70 I

- $U_f = 1,90 \text{ W/m}^2\text{K} - 2,60 \text{ W/m}^2\text{K}$
- Improved thermal glazing gaskets
- Improved thermal central gasket

Avantis 70 SI

- $U_f = 1,10 \text{ W/m}^2\text{K} - 2,20 \text{ W/m}^2\text{K}$
- Improved thermal glazing and central gasket
- PE inserts in frame and vent profile (concept FoamPower®)

Avantis 70 SHI

- $U_f = 1,00 \text{ W/m}^2\text{K} - 2,20 \text{ W/m}^2\text{K}$
- Improved thermal glazing and central gasket
- PE inserts in frame and vent profile (concept FoamPower®)
- PE insert thermal improved rebate

Avantis 70	Basic	I	SI	SHI
sightline frame + vent (in mm)	99	99	99	99
U_{frame}	2,44	2,16	1,82	1,70
$U_{\text{window}} (U_{\text{glazing}} = 1,1)$	1,60	1,53	1,43	1,40
$U_{\text{window}} (U_{\text{glazing}} = 0,8)$	1,39	1,31	1,22	1,18

Maximum U_w value based on a window surface of $1,82 \text{ m}^2$



Performance

- Avantis 70 includes several weather barriers by means of specially designed gaskets, a large decompression chamber and internal drainage to assure perfect weather resistance.
- Effective water evacuation is ensured via punched drain holes.
- Special finishes profiles provide additional building drainage.
- Acoustic performance is greatly enhanced with multiple gaskets.

Fabrication

- Avantis 70 is complementary to other Avantis series and results in modularity between systems, allowing fabricators to offer maximum service without increasing stock levels.
- The Euronut groove accommodates all standard hardware.
- A wide range of integrated reinforced mullions and transoms, for greater stability on larger spans.
- Three methods of connection are available. Frame and vent use the same corner connector for the Softline design.
- Punching tools specifically designed for the Eurosystem series, ensure fast and accurate assembly.
- Sapa Building System offers its hardware SapaLogic, an open concept for automation, to fabricators who have a CNC machining center.





Project support & -service

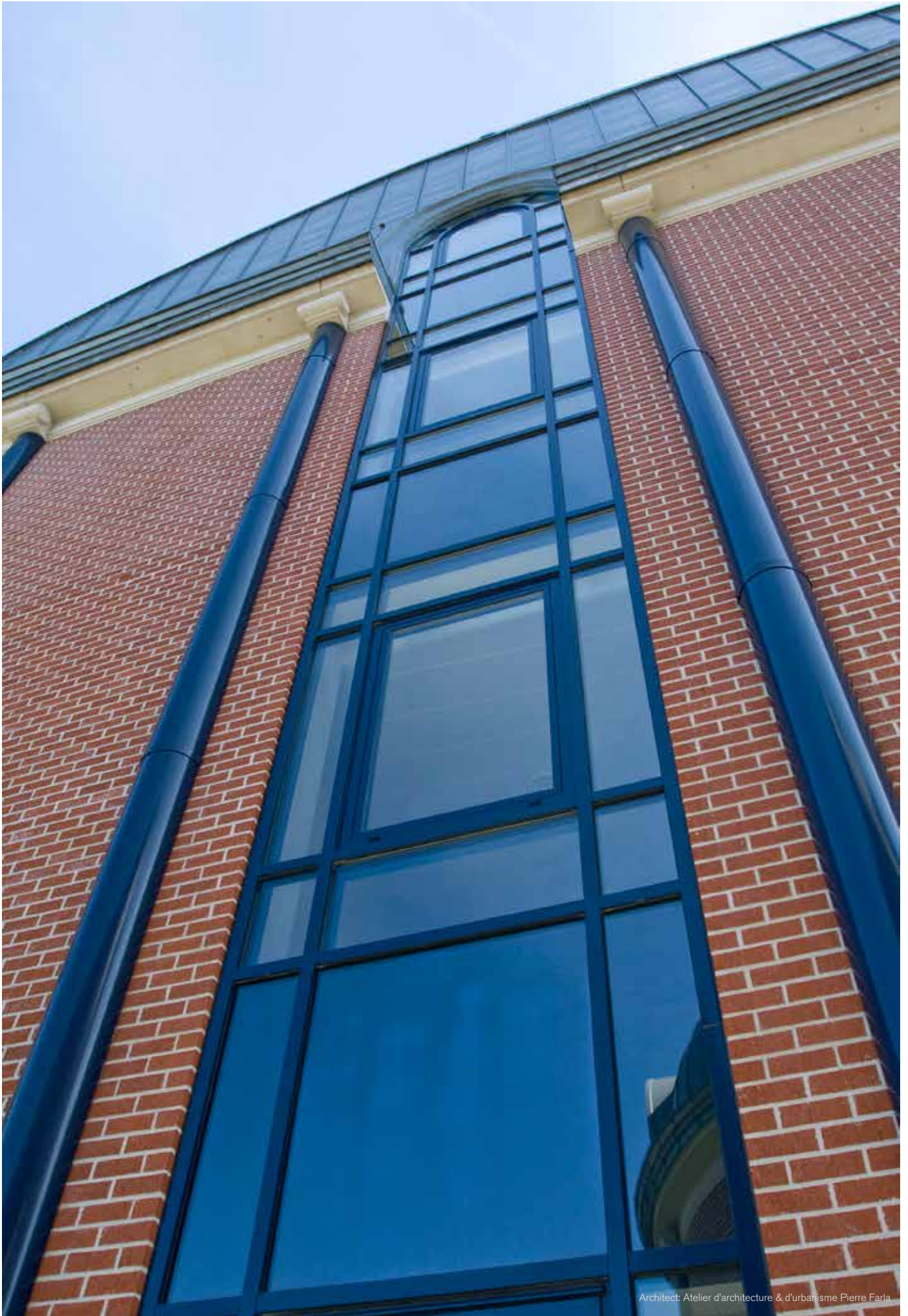
- Sapa Building System's experienced Project Team will advise you on the best product solutions.
- We can help you with pricing, strength calculations, building connections, thermal simulations, etc.
- Specific project solutions can be developed.
- Samples, catalogues, technical specifications and digital drawings are available.

SapaLogic is a user-friendly calculation program for fast, efficient and complete calculation of windows, doors, structures, curtain walls and conservatories. SapaLogic is very much complete but modular still: the different versions can be adapted to your company's needs.

SapaThermic is detailed thermal simulation software for doors, windows, sliding systems and curtain walls. It can either be linked to SapaLogic or act as a stand-alone version.

Finishes

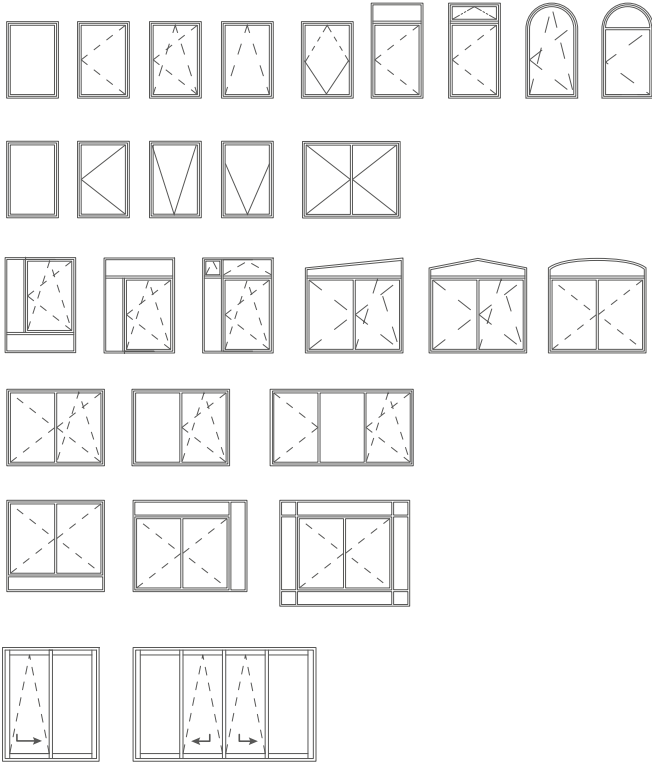
- Over 400 powder coated paint colors in matt, glass or satin.
- Unique wood effect, textured and textured metallic ranges are available.
- Anodised finish is also an option.
- Accessories can be supplied in corresponding colors to match the profiles.
- The polyamide thermal break allows bi-color finishes. As a result, the exterior building requirements do not infringe the interior design requests.
- Our surface finishes meet the highest standards of Qualicoat or Qualanod.



Architect: Atelier d'architecture & d'urbanisme Pierre Farla

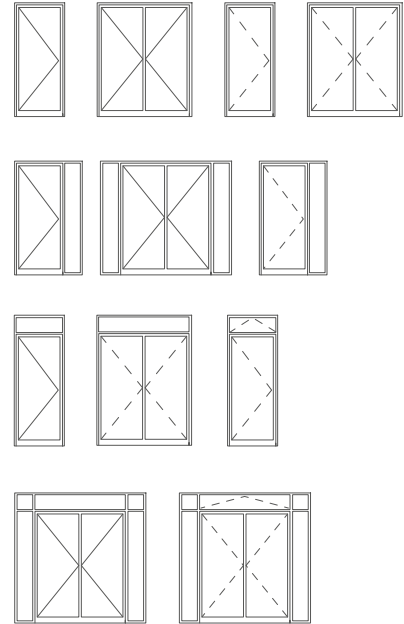
Avantis 70 applications

Windows



outward opening ——— inward opening - - - - -

Doors



Security

- The combination of safety glass and special hardware such as multipoint locking ensures a high resistance against forced entry. Internal tubular glazing beads prevent unclipping from the outside.
- Resistance class 2 (ENV 1627 - 1630)
- A wide range of window and door handles is available.



Avantis 70 FR - fire resistant



Avantis 70 SF - burglary resistant

Characteristics

Dimensions

Min. sightline fixed frame	50 mm
Min. sightline window with inward opening vent	89 mm
Min. sightline window with outward opening vent	99 mm
Min. sightline inward/outward opening door	129 mm
Min. sightline transom	72 mm
Profile depth frame / building depth	70 mm
Profile depth vent	80 mm
Max. window (width x height)	1600 x 2400 mm
Max. door (width x height)	1300 x 2500 mm

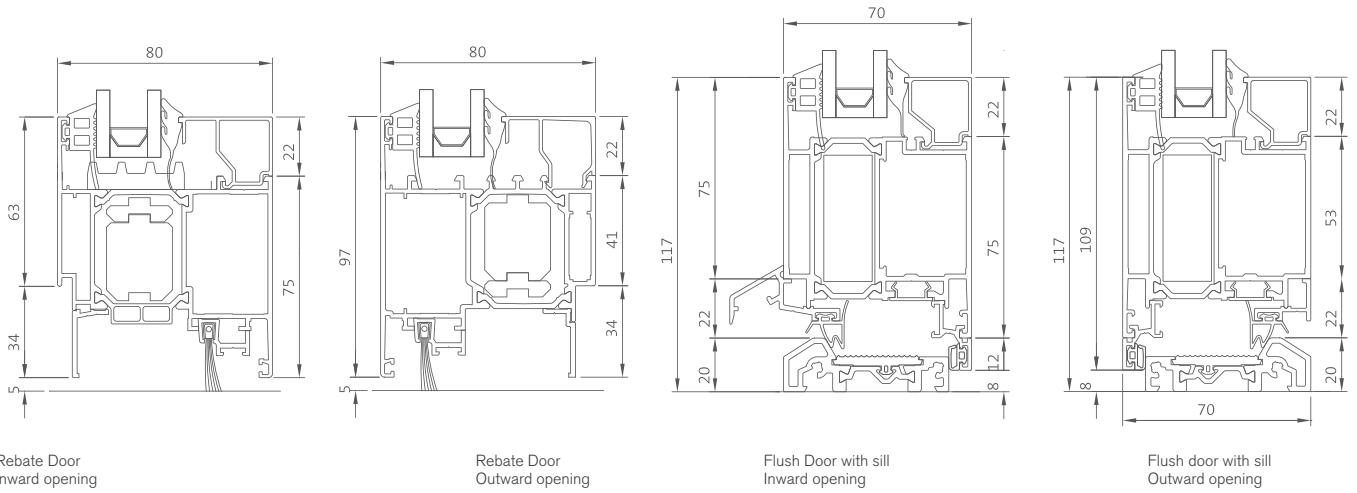
Glazing

Rebate height	22 mm
Infill thickness fixed frame	4 - 54 mm
Infill thickness vent frame	4 - 64 mm
Glazing method	dry glazed with EPDM gaskets or silicon

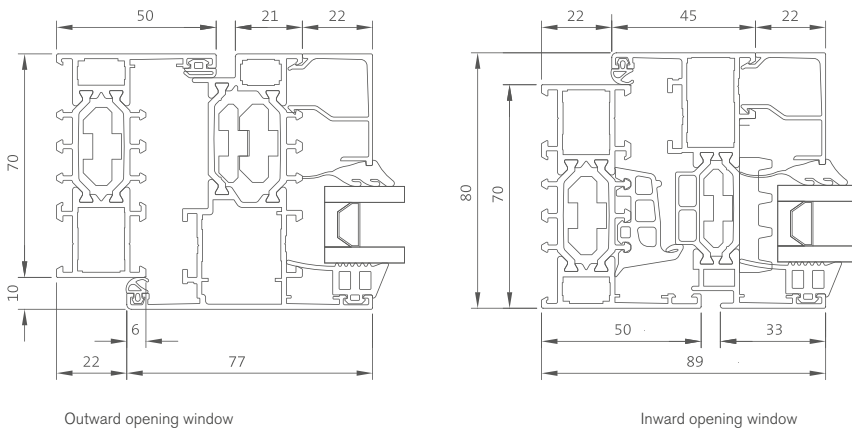
Performances

Thermal break	35 mm omega shaped polyamides PA6.6 GF25		
Thermal insulation			
	SHI:	$U_i = 1,0 - 2,2 \text{ W/m}^2\text{K}$	EN ISO 10077-2
	SI:	$U_i = 1,1 - 2,2 \text{ W/m}^2\text{K}$	EN ISO 10077-2
	I:	$U_i = 1,9 - 2,6 \text{ W/m}^2\text{K}$	EN ISO 10077-2
	Basic:	$U_i = 2,0 - 2,9 \text{ W/m}^2\text{K}$	EN ISO 10077-2
Air permeability	4		EN 12207
Watertightness	E750		EN 12208
Windresistance, securitytest	C3		EN 12210
Acoustical insulation	$R_w(C;Ctr) = 48 (-1;-4) \text{ dB}$ (88.2/16/66.2)		EN ISO 717/1
Forced entry resistance	Class 2		ENV 1627 - 1630

Avantis 70 doors



Avantis 70 windows



sapa:

Sapa offers architects, specifiers, metal fabricators, investors and home-owners worldwide an extensive range of innovative, reliable and aesthetically pleasing aluminium systems for curtain walling, doors, windows and building integrated photovoltaics. Sapa is one of the largest suppliers of aluminium building systems in Europe and is part of the global aluminium company Hydro.

Windows, Doors, Sliding Systems, Curtain Walls, Conservatories, Balustrades, Gates, Solar Shading and BIPV

Hydro Building Systems Belgium nv

Kortemarkstraat 52
BE-8810 Lichtervelde
T +32 (0)51 72 96 66
F +32 (0)51 72 96 89
E info.be@sapagroup.com

Industriezone Roosveld 11
BE-3400 Landen
T +32 (0)11 69 03 11
F +32 (0)11 83 20 04
www.sapabuildingsystem.com

By  Hydro