sapa:
buildingsystem
ARCHITECTURAL ALUMINIUM SOLUTIONS

# Avantis 70

## Windows and Doors

**Sapa Building System**

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 55,5 mm for frame and 65,5 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: $U_f = 1,9\ W/m^2K$ - $2,9\ W/m^2K$.
- Avantis 70 I: $U_f = 1,6\ W/m^2K$ - $2,4\ W/m^2K$.
- Avantis 70 SI: $U_f = 1,1\ W/m^2K$ - $2,2\ W/m^2K$.
- Avantis 70 SHI: $U_f = 0,98\ W/m^2K$ - $2,1\ W/m^2K$

## Environment

» All profiles are easily cleaned.
» Aluminium does not rust, rot or tear and the shape will not deform.
» Aluminium is a “green” product: it can be recycled infinitely without quality loss.

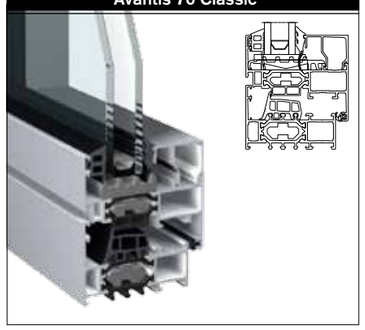
## Security

» 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 locking and non-locking handles are integrated in to the system.

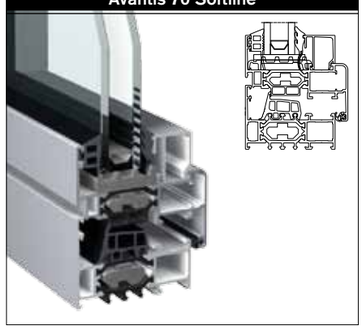
## Design

» Avantis 70 is compatible within its profile and hardware range, as well as other Sapa Building System products such as our curtain wall and conservatory systems.
» It is available in 2 designs: Classic and Softline.
» Hidden drainage to avoid the requirement for cover caps.
» Doors overlapping, single or double, in- and outward 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 5 designs: Classic (straight), Softline (rounded), Rustic (decorative),, Reko (renovation) and HV (hidden vent)

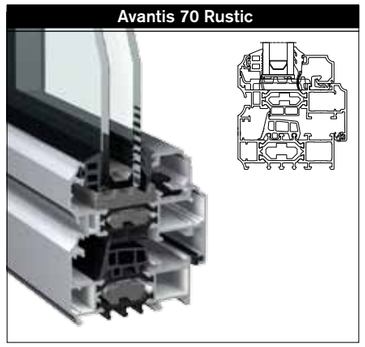
**Avantis 70 Classic**



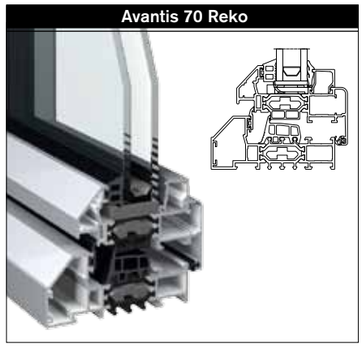
**Avantis 70 Softline**



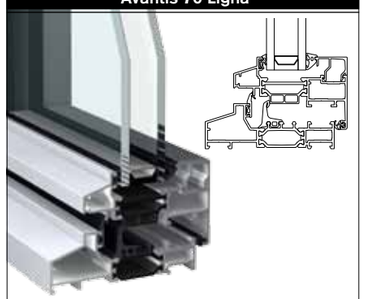
**Avantis 70 Rustic**



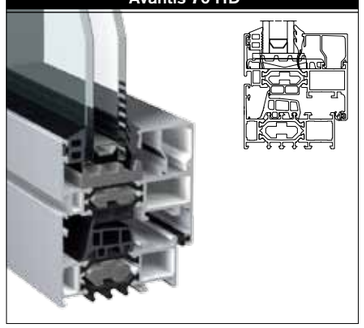
**Avantis 70 Reko**



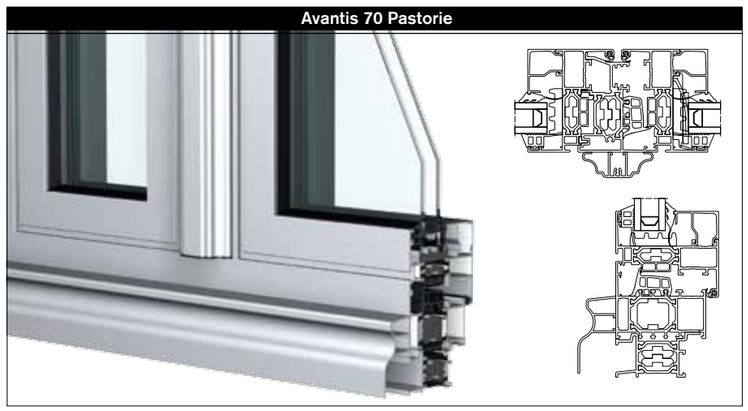
**Avantis 70 Ligna**

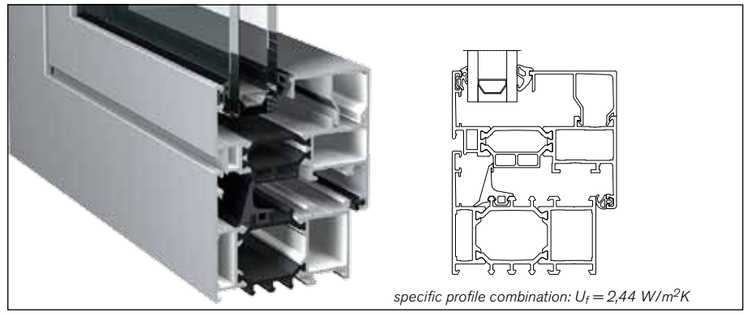


**Avantis 70 HD**



**Avantis 70 Pastorie**

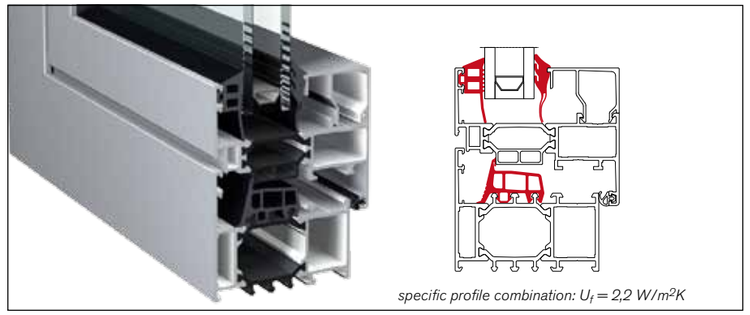




*specific profile combination: $U_f = 2{,}44\ W/m^2K$*

### Avantis 70 Basic

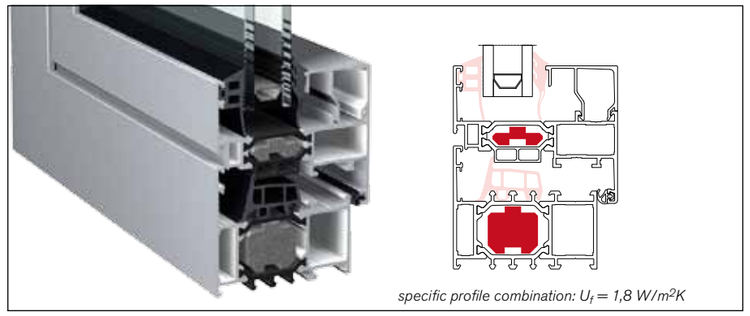
» $U_f = 1{,}9\ W/m^2K$ - $2{,}9\ W/m^2K$



*specific profile combination: $U_f = 2{,}2\ W/m^2K$*

### Avantis 70 I

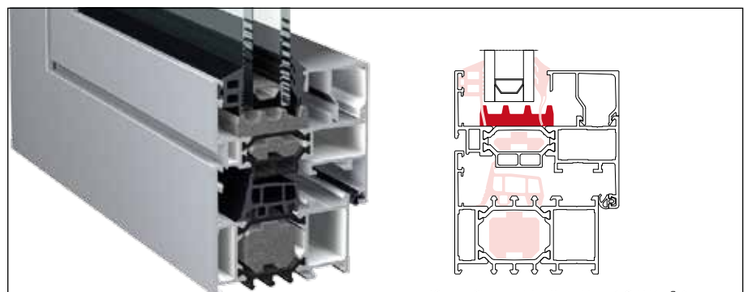
» $U_f = 1{,}6\ W/m^2K$ - $2{,}4\ W/m^2K$
» Improved thermal glazing gaskets
» Improved thermal central gasket



*specific profile combination: $U_f = 1{,}8\ W/m^2K$*

### Avantis 70 SI

» $U_f = 1{,}1\ W/m^2K$ - $2{,}2\ W/m^2K$
» Improved thermal glazing gaskets & central gasket
» PE insert in frame and vent profile (concept Foam-Power®)
» PE insert thermal improved rebate



*specific profile combination: $U_f = 1{,}6\ W/m^2K$*

### Avantis 70 SHI

» $U_f = 0{,}98\ W/m^2K$ - $2{,}1\ W/m^2K$
» Improved thermal glazing gaskets & central gasket
» PE insert in frame and vent profile (concept Foam-Power®)
» PE insert thermal improved rebate
» PE insert thermal improved glazing unit

| **Avantis 70** | Basic | I | SI | SHI |
|---|---|---|---|---|
| Sightline in mm frame + vent | 119 | 119 | 119 | 139 |
| $U_{frame}$ | 2,4 | 2,0 | 1,7 | 1,4 |
| $U_{window}$ ($U_{glazing} = 1{,}1$) | **≤ 1,6** | **≤ 1,5** | **≤ 1,4** | **≤ 1,3** |
| $U_{window}$ ($U_{glazing} = 0{,}8$) | **≤ 1,4** | **≤ 1,3** | **≤ 1,2** | **≤ 1,1** |

*Maximale $U_w$ value based on a window surface of 1,6 $m^2$*

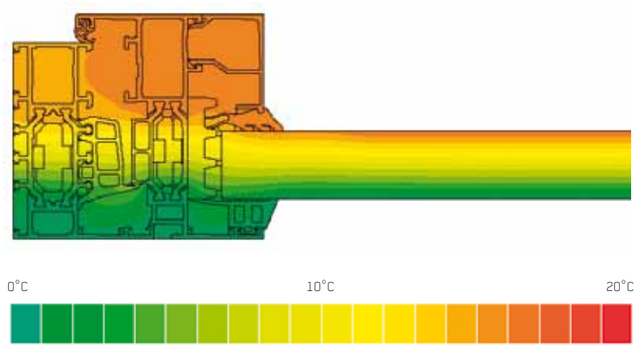
## Finishes

- 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 fo not infringe the interior design requests.
- Our surface finishes meet the highest standards of Qualicoat or Qualanod.

## 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 provid additional building drainage.
- Acoustic performance is greatly enhanced with multiple gaskets.

### Avantis 70 SHI




### Fabrication

- Avantis 70 belongs to the Eurosystem range. It is complementary to other Eurosystem series and results in modularity between systems, allowing fabricators to offer maximum service without increasing stock levels.
- The Euronut groove accomodates all standard hardware.
- A wide range of integrated reinforced mullions ans 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

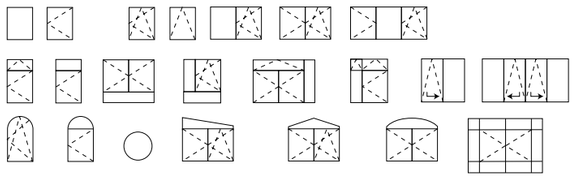
- Sapa Building System's experienced Project Team will advise you on the best product solutions.
- We can help you with pricing, strength calculations, building connections, thermal simulations, etc.
- Specific project solutions can be developed.
- Samples, catalogues, technical specifications and digital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

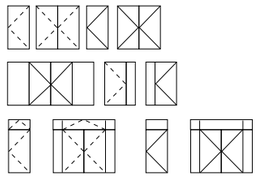
**SapaThermic** is detailed thermal simulation software for doors, windows, sliding systems and curtain walls. It can either be linked to SapaLogic or act as a stand-alone version.

## Applications

Windows



Doors



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

## 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 opening door | 129 mm |
| Min. sightline 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 - 55 mm |
| Infill thickness vent frame | 4 - 65 mm |
| Glazing method | dry glazed with EPDM gaskets or silicon |

## Performances

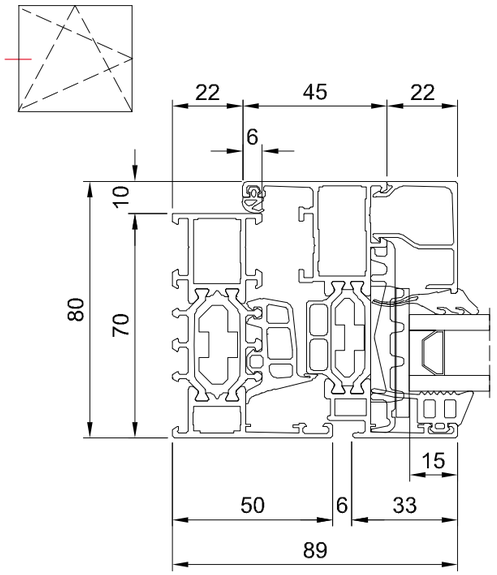
| | | | |
|---|---|---|---|
| Thermal break | | | 35 mm omega shaped polyamides PA 6.6 GF25 |
| Thermal insulation | Basic: | $U_f = 1,9$ - 2,9 W/m²K | EN ISO 10077-2 |
| | I: | $U_f = 1,6$ - 2,4 W/m²K | EN ISO 10077-2 |
| | SI: | $U_f = 1,1$ - 2,2 W/m²K | EN ISO 10077-2 |
| | SHI: | $U_f = 0,98$ - 2,1 W/m²K | EN ISO 10077-2 |
| | | | |
| Air permeability | | 4 | EN 12207 |
| Water tightness | | E750 | EN 12208 |
| Wind resistance, security test | | C3 | EN 12210 |
| | | | |
| Acoustical insulation | | $R_w$ (C;$C_{tr}$) = 48 (-1;-4) dB (88.2/16/66.2)* | EN ISO 717/1 |
| | | | |
| Forced entry resistance | | Class 2 | ENV 1627 – 1630 |

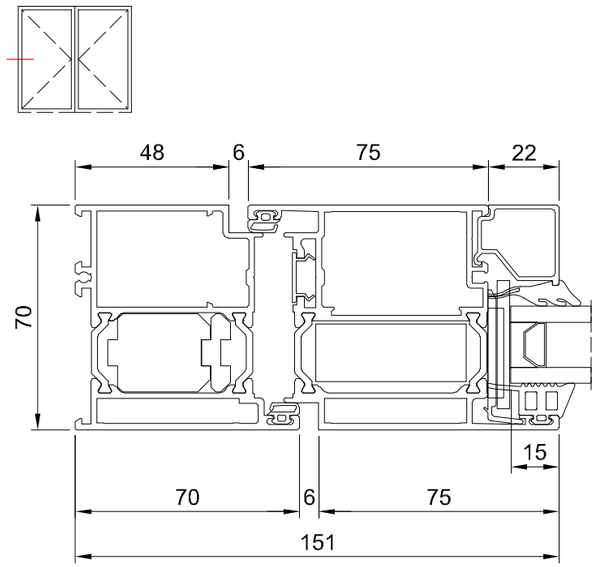
*This information is only an indication. For more information, please consult your local Sapa Building System branch.*

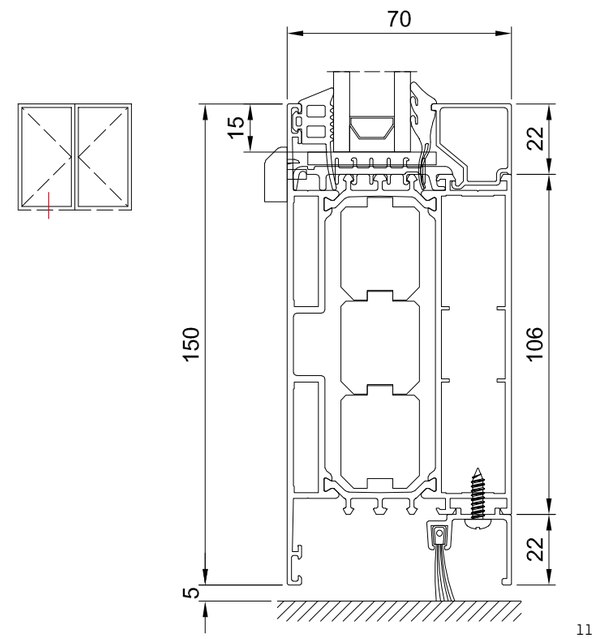
** with additional acoustic gasket.*



## Technical drawings



**Sapa Building System**, is one of the largest suppliers of aluminium building systems in Europe and is part of the Swedish group Sapa. The core business is the development and distribution of aluminium profile systems. Sapa Building System aims for well-developed systems and project solutions offering a tangible added value to fabricators, architects, investors and home-owners.

**Windows and Doors**
**Sliding Systems**
**Curtain Walls**
**Conservatories**
**Balustrades, gates and others**
**BIPV**

Your local Sapa Building System fabricator

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