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1182-410600113-4.22.07.2017



ZENIA INSULATED SLIDING SYSTEMS WINDOW AND DOOR SYSTEM

NEW ERA OF SUPERIOR INSULATION IN SLIDING SYSTEMS

Today, the importance of usage of energy resources and their efficient usage is increased. 82% of the energy utilized by building complexes is used for heating purposes. This rate corresponds to approximately 26% of the total energy consumed in our country. The heat loss in buildings arises from various sources: 40% through exterior walls, 30% through windows, 17% through exterior and balcony doors, 7% through roofs and 6% through the undersides of flooring. Due to this fact, residences stand out as the most important areas for energy saving and PVC window systems stand out as the best insulation systems for the purpose. The fact that energy is the most limited and expensive resource gives "energy conservation" in window systems, which is actually insulation, even more prominence.

Firat is blazing a new trail on this subject by presenting the "Zenia Slide" which eliminates the insulation problems with sliding systems used in residences and offices. When the windows are closed, the "Insulated Sliding Systems" ensure insulation at all points via EPDM seals. Thus, external factors such as wind, noise and rain are prevented from being transferred inside.

AESTHETICS

The frame and sash profiles of "Zenia Slide Systems" were designed to be at the same level, for ensuring a complete, elegant look.

With a range that extends from the smallest window to the largest doors that open to offices, gardens and terraces, the systems have a wide area of usage. With 21 different color and texture options, they meet the architectural and decorative expectations.

SYSTEM FEATURES

- The system has 125-mm wide frame and 50-mm wide sash profile.
- It can be used with two different glazing bead profile types of 20 mm and 24 mm.
- When the windows are closed, insulation at all points is ensured via EPDM seals.
- Two different aluminum rail profiles were developed for doors and windows in order to facilitate passage over thresholds.
- The frame and sash profiles of the system were connected via welding method and the system was designed to be manufactured with the minimum amount of profiles at maximum speed.
- Since each sash can carry up to 200 kgs, the system can be applied for a wide range from the smallest windows to the largest doors.
- Sash connection points are the weakest points in sliding systems. The special interlock profile used in these points enables the insulation to be provided through two EPDM seals and sliding seal brush.
- The special locking feature of interlock profiles completely eliminates the risk of window sashes pulling away from each other due to wind.
- The gap in the connection point of the two upper horizontal sashes, which constitutes another weakness in sliding and parallel sliding systems, has been eliminated with the specially designed insulation profile and sliding stopper.
- The profile specially designed for purposes of providing aesthetic conformity for the upper gap between the frame and the sash and sealing the gap also ensured the system integrity to remain unharmed.

WIND LOAD RESISTANCE

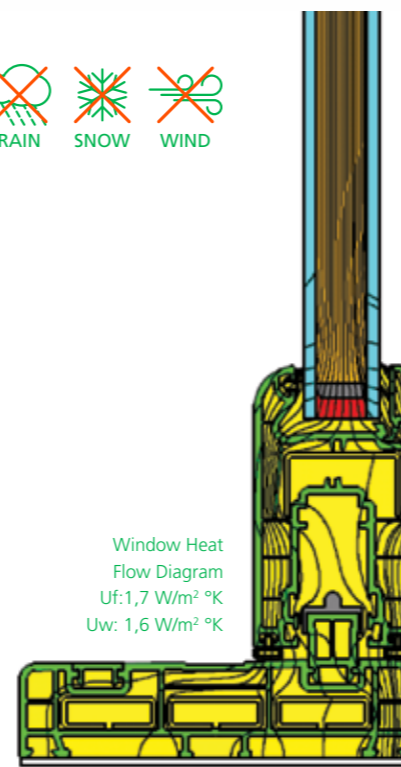
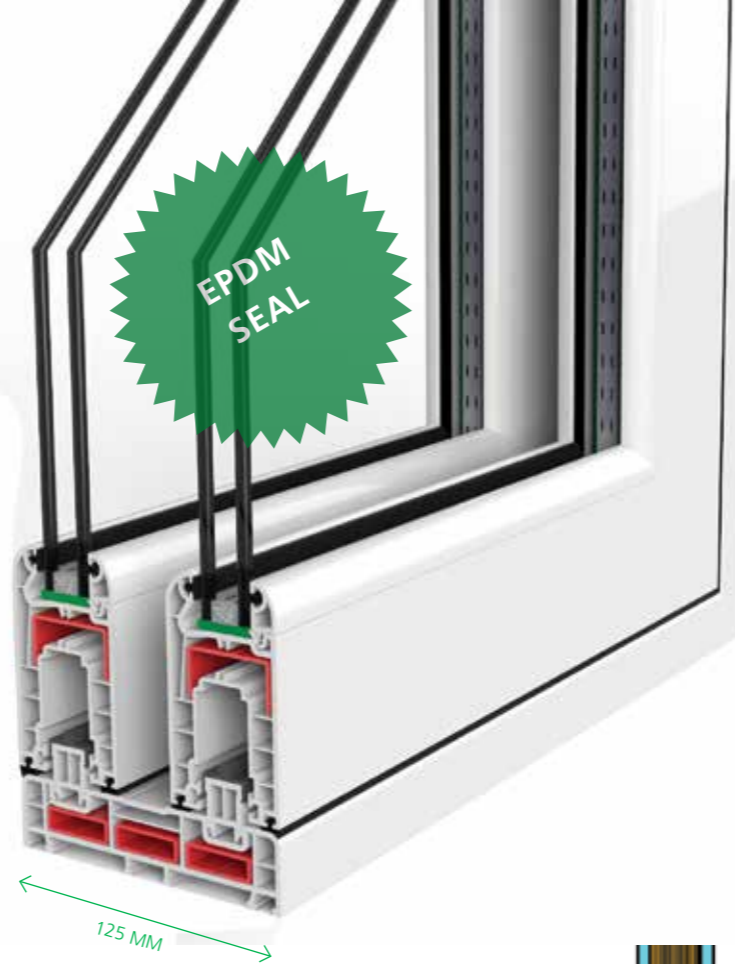
- The "Zenia Slide" has very high wind load resistance by means of its locking system and interlock profile structure and is able to provide the same air impermeability performance values as high-insulation window systems.
- While developing "Zenia Slide" the maximum wind load values to which the buildings can be exposed were taken into the consideration; the structure of the reinforcement steel as well as their positions inside the profiles were designed in the most effective way.

HEAT INSULATION

- Profile width of "Zenia Slide", its chamber numbers, chamber widths, profile heights and EPDM seal systems were created to meet all the requirements regarding thermal conductivity coefficient.
- Compatible with TS EN ISO 10077-2 standards, Ug : 1,1 W/m²K, Uw : 1,6 W/m²K and Uf : 1,7 W/m²K values were achieved with the Windows system which has the dimensions of 1,23 m x 1,43 m.

SOUND INSULATION

- The "Zenia Slide" provides sound insulation with values up to 40 dB. Thus, the system makes it possible to attain an indoor sound level that accommodates a quality life, even in the noisiest environments.
- The sound insulation level to be acquired via acoustic glasses that can be used with the system isolates the noise from the outside from indoors in the most efficient way.



Window Heat Flow Diagram
Uf: 1,7 W/m² °K
Uw: 1,6 W/m² °K

COLOUR AND DESIGN CHART

PROFILE WIDTH
125 mm

PROFILE HEAT INSULATION
1,7 W/m² °K

WINDOW HEAT INSULATION
1,6 W/m² °K

SOUND INSULATION
40 db

AIR PERMEABILITY CLASS
4

WATER IMPERMEABILITY CLASS
9A

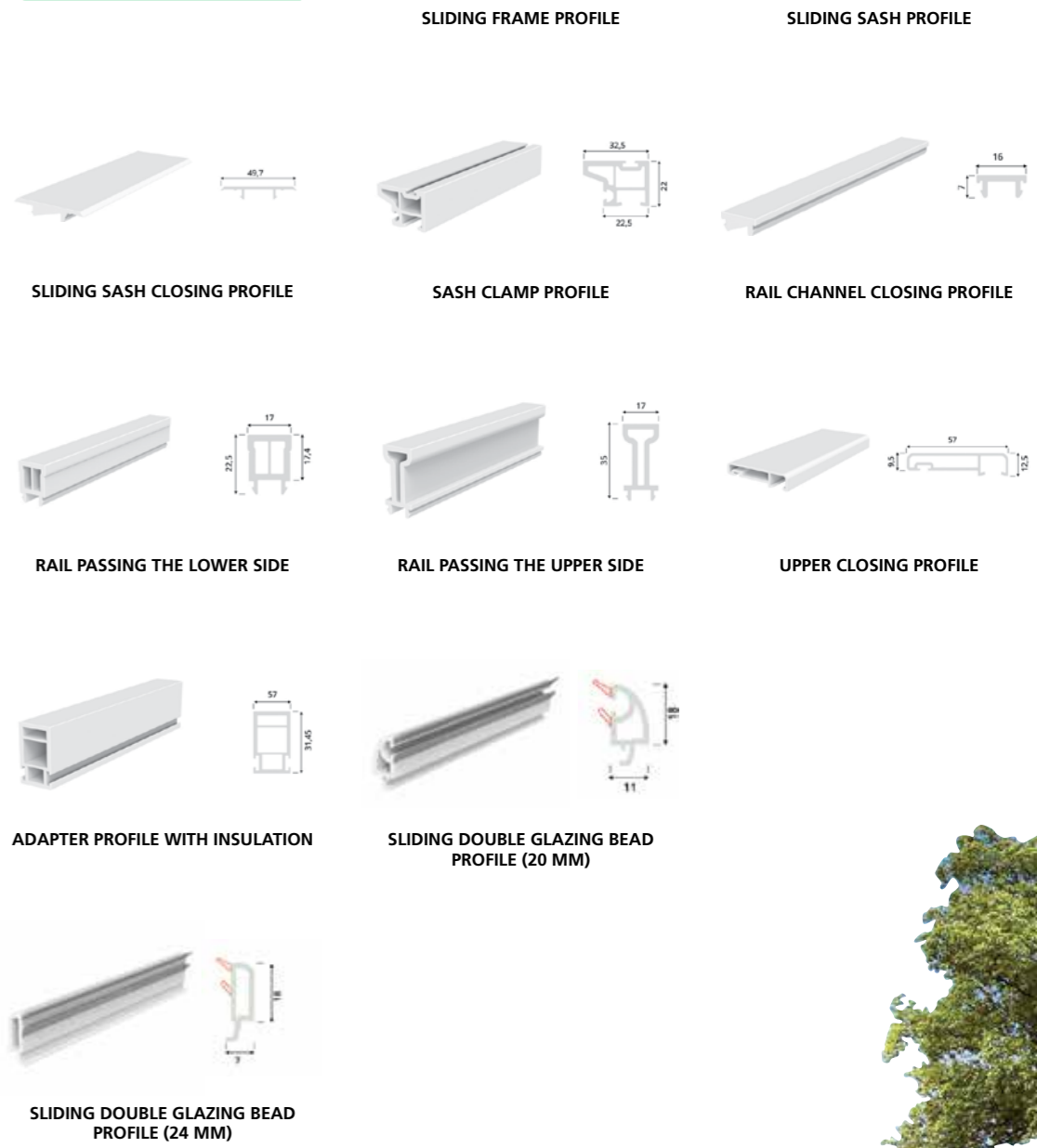
WIND LOAD RESISTANCE CLASS
C3

GLASS THICKNESS
20, 24 MM

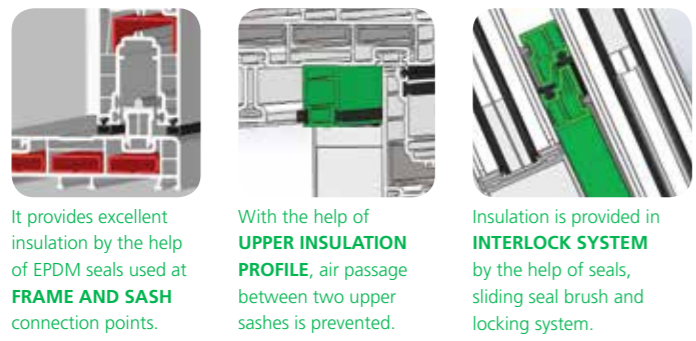
The calculations were made by using a glass unit with a thermal conductivity coefficient of 1,1 W/m²°K for a window with dimensions of 1,23x1,43 m in accordance with the standard TS EN ISO 10077-2.

WHITE	CREAM WHITE	MAHOGANY
EICHE RUSTICAL	DARK OAK	DARK GREEN
STEEL BLUE	GOLDEN OAK	OAK
WALNUT	CEDAR	ANTEAK
WINCHESTER	MACORE	ANTHRACITE
ASH	TROMPET	GREY
SILVER BRUSH EFFECT	SILVER D (SILVER GREY)	ALUMINIUM BRUSH EFFECT

ZENIA (INSULATED SLIDING) SYSTEMS SERIES PROFILES



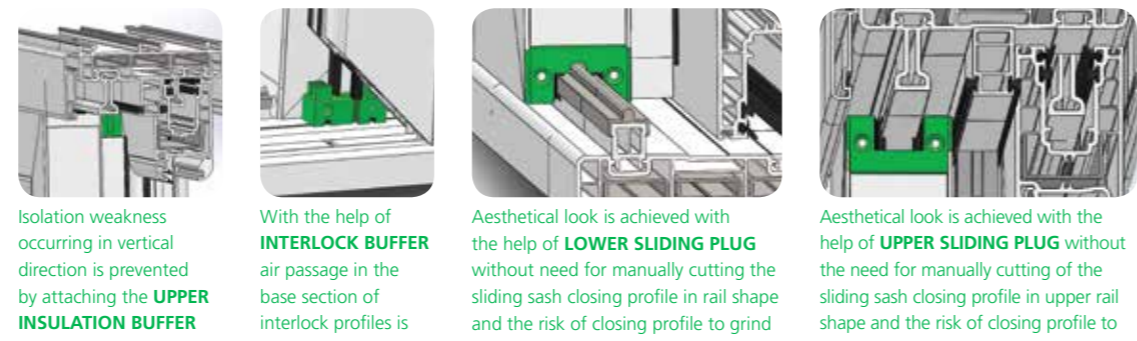
INSULATED SLIDING SERIES TECHNICAL DETAILS



It provides excellent insulation by the help of EPDM seals used at **FRAME AND SASH** connection points.

With the help of **UPPER INSULATION PROFILE**, air passage between two upper sashes is prevented.

Insulation is provided in **INTERLOCK SYSTEM** by the help of seals, sliding seal brush and locking system.



Isolation weakness occurring in vertical direction is prevented by attaching the **UPPER INSULATION BUFFER** over the interlock profiles.

With the help of **INTERLOCK BUFFER** air passage in the base section of interlock profiles is prevented.

Aesthetical look is achieved with the help of **LOWER SLIDING PLUG** without need for manually cutting the sliding sash closing profile in rail shape and the risk of closing profile to grind over the rail is removed.

Aesthetical look is achieved with the help of **UPPER SLIDING PLUG** without the need for manually cutting of the sliding sash closing profile in upper rail shape and the risk of closing profile to grind over the rail is removed.

