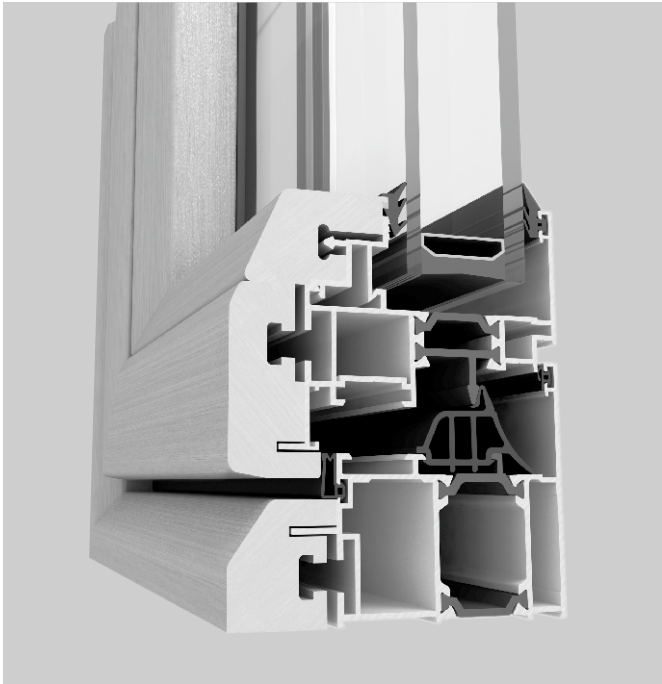




TECHNICAL SYSTEM DESCRIPTION

System LINEAL [W-PLUS 89] system is one of eleven systems within the LINEAL series and represents a thermally broken aluminium-wood profile solution developed for the fabrication of windows and balcony doors with a frame depth of 89 mm. Combining the durability and weather resistance of aluminium with the warmth and natural appearance of solid wood on the interior, the system is designed to meet contemporary requirements for energy efficiency while ensuring a safe, comfortable, and durable living and working environment. Particular attention has been dedicated to the selection and optimization of thermal break components within the profile structure, resulting in thermal performance values of up to $U_f = 2.05 \text{ W/m}^2\text{K}$ and $U_w = 1.13 \text{ W/m}^2\text{K}$.

- Aluminium profiles were manufactured in Tehnomarket's own extrusion factory. The raw material used is primary aluminium alloy AlMgSi0.5 (AA 6063 and AA 6060) with minimum tensile strength of 210 KN/mm^2 .
- 24mm wide Polyamide stripes (PA 6,6 with 25% glass fibers) connect inner and outer aluminium parts into finished profiles, and beside functioning as a mechanical bond they also provide a thermal break. Guaranteed shearing force for profiles connected with polyamide stripes is strictly controlled during production.
- Massive wooden cladding on the inner side is made of quality hardwood (oak, mahogany, beech...) protected with different types of durable acrylic paint coat. Wooden cladding profiles are attached to aluminium load-bearing structure via Specially designed polyamide clips allow independent thermal expansion and contraction of the different materials used within the system. Thermic and acoustic performance of windows are further enhanced by exquisite, uniquely designed internal wooden cladding.
- Insulating performance of the complete system was confirmed through thermal performance testing. At the same time, wind load, air and water permeability and sound insulation were tested as well.
- System is compatible with dedicated Tehnomarket's EURO 1 or Eugen-Notter hardware set without visible hinges.
- System allows glass packages from 26 to 46mm with EPDM gaskets that feature triple integrated anti-blowing barrier.
- The triple sealing between frame and sash is achieved with three separate EPDM gaskets resistant to UV light.
- Corner joining with extruded patent or press clips is achieved through all profile chambers, thus guaranteeing secure and precise joints and finished element geometry.
- Drainage of condensed and incidental water is regulated via free flat surfaces in profile chambers, while ventilated outer chamber features optimal width of 20mm.
- Basic outer frame width of 65mm allows for an ideal mounting surface for optimal placement of mosquito net and roll-shutter's guides. Internal width of the frame provides an ideal space for tape coiler.