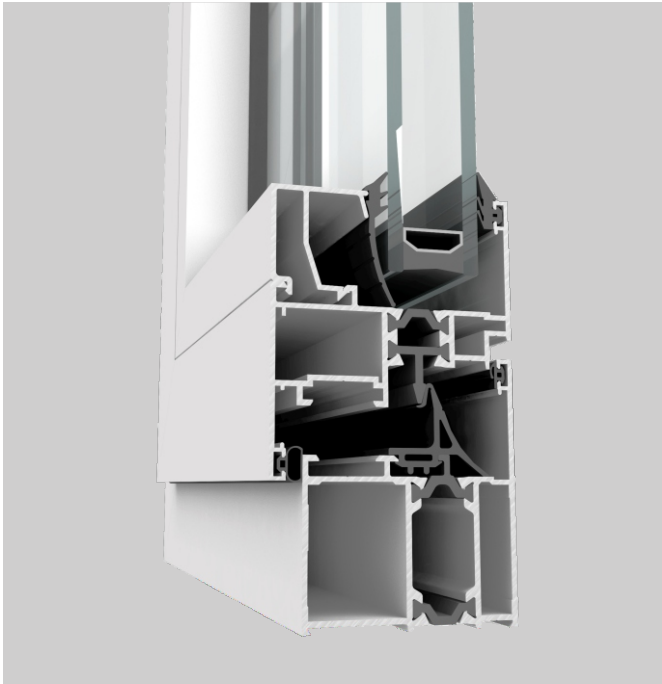




TECHNICAL SYSTEM DESCRIPTION

System LINEAL [ST 54] system is one of eleven systems within the LINEAL series and represents a thermally broken aluminium profile solution developed for the fabrication of windows and doors with a frame depth of 54 mm. Designed to meet contemporary requirements for energy efficiency, the system also delivers the performance characteristics necessary to ensure 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 $U_f = 2.868 \text{ W/m}^2\text{K}$ and $U_w = 1.67 \text{ W/m}^2\text{K}$.

- 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 .
- 16mm 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.
- 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 both EURO 1 and EURO 16mm groove standards for hardware installation.
- System allows glass packages from 8 to 45mm with EPDM gaskets that feature triple integrated anti-blowing barrier.
- 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.