The MB-77HS lift and sliding balcony door with a thermal barrier system is used to make elements of external architectonic development which are characterised by high thermal and acoustic insulation as well as water- and air-tightness. This system meets all energy saving and environmental requirements. The parameters of the door which consists of MB-77HS system elements exceed the requirements of even the strictest applicable regulations and standards.

- The design depth of door sections is: 77 mm (casement), 174 mm (2-rail frame).
- Profiles used in the system have a three-chamber structure where the central chamber is the insulation chamber between shaped thermal breaks 43, 42, 35 or 27 mm thick.
- The system provides 2 construction variants which differ in thermal insulation without the need to change the basic profiles and accessories. The first variant (MB-77HS ST) with an empty central chamber between thermal breaks is characterised by the lowest thermal insulation. The second door variant (MB-77HS HI) with a central chamber filled with a special insulation element or a barrier between thermal breaks to divide the internal air space into 2 parts is characterised by higher insulating power. These structure variants allow various user needs to be satisfied while maintaining low costs of storing the system elements and manufacturing the door.
- The relatively low overall heat-transfer coefficient Uf for frames is ensured due to the use of wide thermal breaks, polyethylene inserts and plastic chamber profiles mounted in the thermal insulation bands.
- High water- and air-tightness can be obtained thanks to the special shapes of cover strip and glass pane gaskets, as well as fittings which allow the casement to drop into the frame during the final stage of closing the casement.
- Most gaskets (e.g. glass pane gaskets and internal cover strip gasket) are mounted on a continuous basis, without being cut at corners, and their ends are joined at the midpoint of the upper crosspieces of door frames. The cover strip gasket of casement is cut at 45° and glued at the corners or cut at 90° and glued to the rubber corner. This way of mounting gaskets ensures very good water and air penetration rating.
- Closed shape glazing beads, both in the Standard and Prestige version, allow the durable installation of infills, which to a large extent makes it possible to obtain anti-burglary constructions. In these beads, the EPDM positioning rollers are fixed to allow beads to be mounted in the frame of the window or door.
- The internal glass pane gaskets are deeply embedded in glazing beads so that they are barely visible from the inside.
- The possible ranges of pane thickness to be glazed in a casement vary between 13.5 and 58.5 mm. This wide range of glazing allows the assembling all types of two-chamber, acoustic or anti-burglary glass panes available on the market.
- The use of typical fittings grooves allows the assembling of most lift and sliding, as well as sliding fittings available on the market, e.g. G-U, Hautau, Siegenia.
- The profile drainage system can be made either in a concealed version or visible version with a decorative plug.
- The thermally insulated profiles in MB-77HS ST and HI version can be powder varnished and anodised.
- Corners are offered as elements made from extruded sections and allow the application of crimping or the plugging process using 2-part Coraglue.
- The construction technology is simplified to the maximum possible extent to minimise the time of manufacture.
- For most treatments instrumentation (drilling templates, presses or blanking dies) can be used.
- The maximum overall casement dimensions significantly exceed the values regarded as standard ones: Hs=3.2m, Ls=3.3m. Maximum casement weight – 400 kg.

- The MB-77HS system is compatible with other Aluprof systems, in particular MB-86. Thus, many of the elements can be used in more than one system, e.g. glazing beads, gaskets, fittings and most accessories.

If you have any questions or doubts, Aluprof S.A. specialists will offer you any help and advice.