


TM  
77  
HI



HIGH THERMAL INSULATION' PROPERTIES

### TM 77HI - SYSTEM FEATURES

TM 77HI system is a safe and innovative solution that provides excellent parameters of thermal and acoustic insulation, safety, and protection against wind and water.

The separators between aluminium profiles ensure great thermal insulation properties.

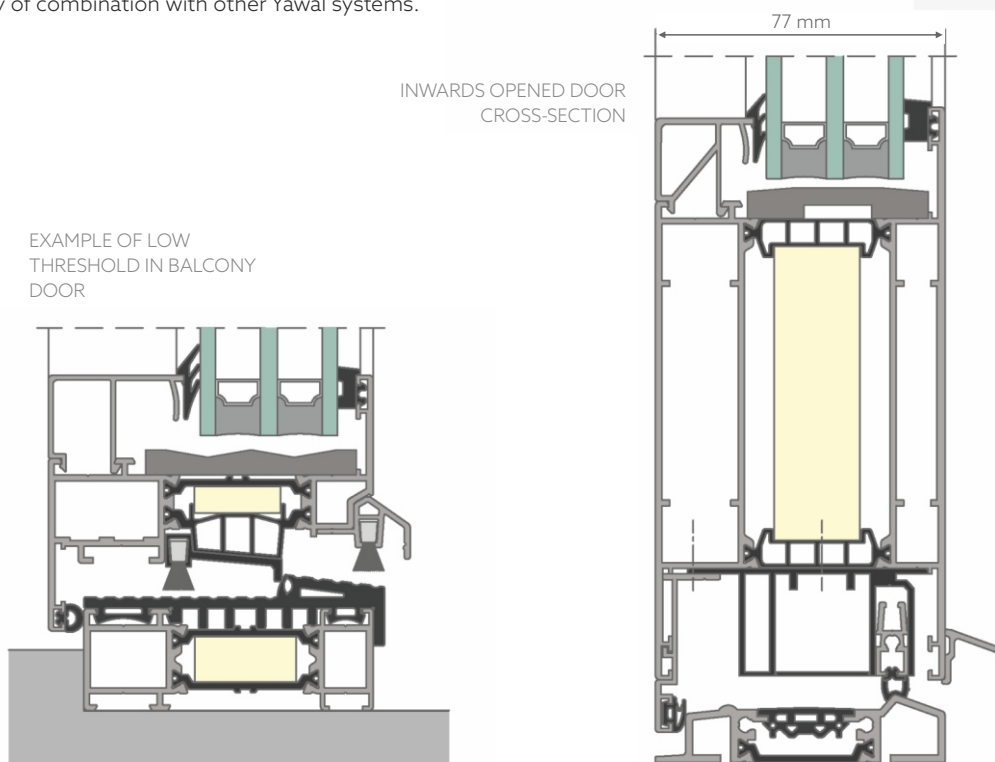
Dedicated thermal insulators act as thermal insulation, in combination with infill of high thermal insulation properties.

Photo: Corner House, Warszawa  
Project: Biuro Projektów Kazimierski i Ryba Sp. J., Warszawa  
Aluminium manufacturer: BUMA FACTORY, Kraków



## ADVANTAGES OF THE SYSTEM

- possibility of heating costs reduction,
- possibility of creating large-surface constructions with modern arrangement of facades and interiors
- easy to match with fittings elements and control elements,
- possibility of creating modern constructions of various shapes and configurations,
- possibility of achieving heat transfer factor as good as  $U_f=0,8-1,5 \text{ W/m}^2\text{K}$  thanks to using unique thermal insulation solutions,
- possibility of making balcony door with low threshold,
- possibility of combination with other Yawal systems.



### TECHNICAL PARAMETERS - TM 77HI

|                           | TM 77HI windows  | TM 77HI doors  |
|---------------------------|--|--|
| Air permeability          | class 4 acc. to PN 12207   | class 4 acc. to PN-EN 12207                                      |
| Water tightness           | E1650 acc. to PN-EN 12208  | E900 acc. to PN-EN 12208   |
| Heat transfer coefficient | $U_f=0,8\div1,4 \text{ W/m}^2\text{K}$ acc. to PN-EN ISO 10077-2 | $U_f=0,9\div1,5 \text{ W/m}^2\text{K}$ acc. to PN-EN ISO 10077-2 |
| Acoustic insulation       | 39-48 dB acc. to PN-EN ISO 140-3                                 | 36-45 dB acc. to PN-EN ISO 140-3                                 |
| Anti-theft protection     | RC2, RC3, RC4  | RC2, RC3   |

### SYSTEM CHARACTERISTICS

|                                  |               |          |
|----------------------------------|---------------|----------|
| Window structural depth          | Frame profile | 77 mm    |
|                                  | Sash profile  | 86,4 mm  |
| Door structural depth            | Frame profile | 77 mm    |
|                                  | Sash profile  | 77 mm    |
| Glass pane thickness for windows | Frame profile | 19÷61 mm |
|                                  | Sash profile  | 28÷67 mm |