



# *TM 77 HI System*



**TM 77 HI**  
YAWAL System



## System description

TM 77HI Okna system is a new innovative solution enabling to obtain excellent heat and acoustic insulation parameters, protection against wind and water as well as safety. Casement and frame profiles of the TM 77HI system consist of two pieces of aluminium, separated by insulating tapes. Thermal insulation is obtained due to chamber solution of insulator zone and a system of 2-component central sealing and filling of profiles inner surface in the zone of a thermal bridge with the use of insulating materials. Constructional depth of the window for the frame and casement is 77 mm and 86.4 mm respectively. Minimum visible width of window structure opened inwards is 52.1 mm for the frame and 31.9 mm for the casement. Height of a glazing strip is 22 mm.

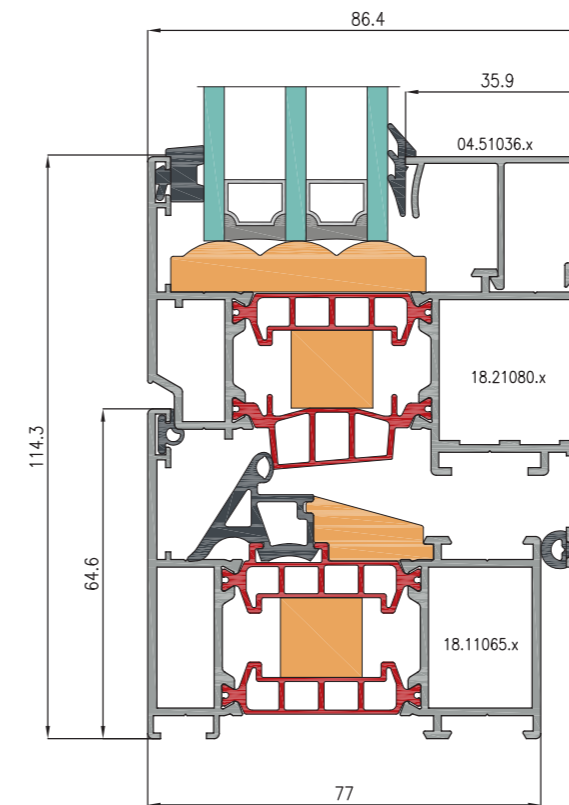
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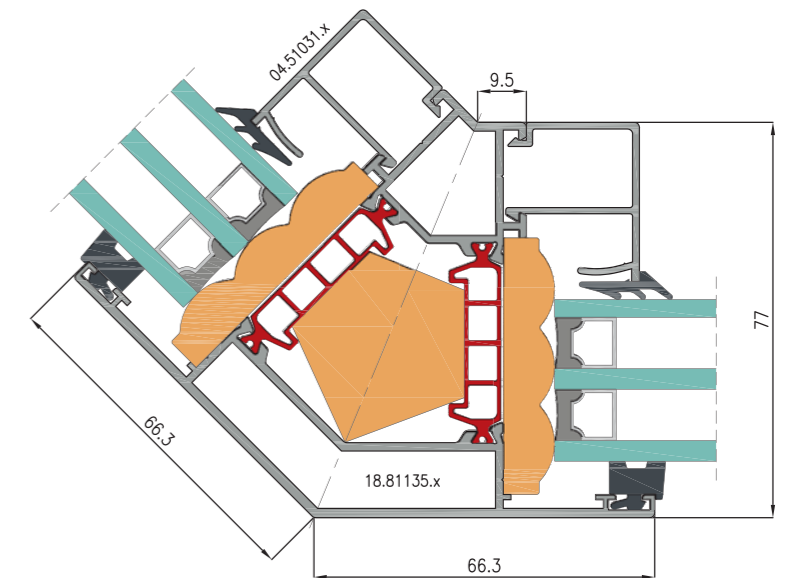
## Merits of the system

- it enables to save energy which gives measurable effects in a form of lower heating costs,
- the system enables to create structures of big surfaces which allows for modern arrangement of façades and interiors,
- it cooperates with a whole range of fitting and control elements,
- the system allows for completion of modern solutions of window structures in various configurations and arrangements,
- unique thermal insulation solutions applied in the system allow for obtaining excellent overall heat transfer coefficient value on the level of  $U_f = 1,1 - 1,5 \text{ W/m}^2\text{K}$ .

## The system solutions and applications



A leaf and door frame section.



Angle solutions - 135 degrees.

## Technical characteristics

Technical parametres	TM 77HI*
air permeability	class 4 - PN-EN 12207
water tightness	from E1050 to E1200 - PN-EN 12208
heat penetration rate	$U_f = 1,1 - 1,5 \text{ W/m}^2\text{K}$ - PN-EN ISO 10077-2:2005
acoustic insulation	$R_w = 34 - 48 \text{ dB}$ - PN-EN ISO 140-3

TM 77HI		
Stylistic variants		STANDARD
Minimum inward window structure width visible externally	Window frame profile	52,1 mm
	Sash profile	31,9 mm
Minimum outward door structure width visible externally	Door frame profile	41,7 mm
	Leaf profile	91,7 mm
Window structural depth	Window frame profile	77 mm
	Sash profile	86,4 mm
Glazing bead height		22 mm
Pane thickness		19-70 mm

\*On the basis of own calculations