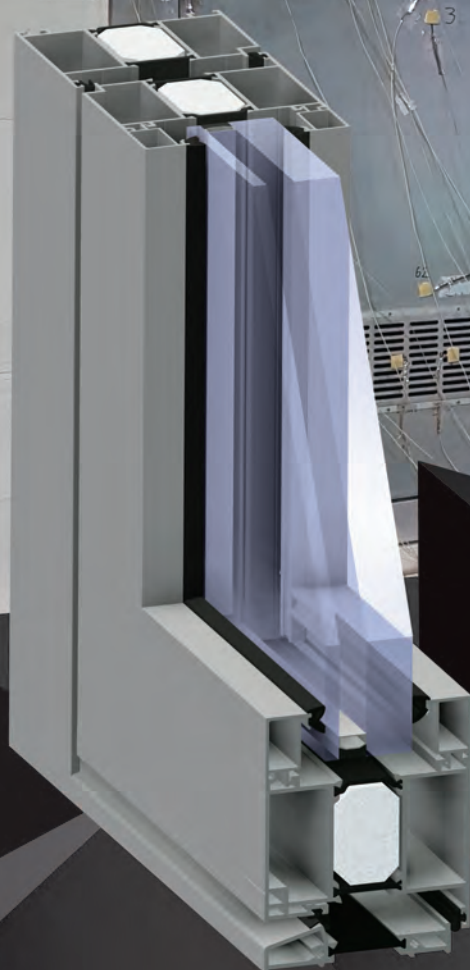


FR90

FR90



Thermally insulated fire protection system.
Structures designed on the basis of the FR90
system feature fire rating EI30 (E_i), EI60 (E_i).

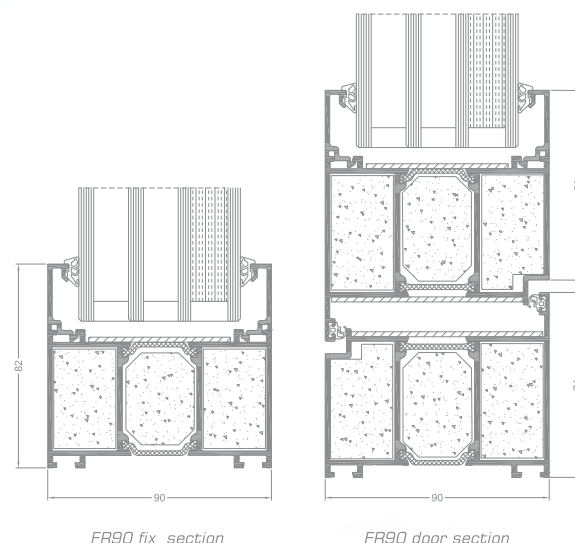
FR90

Thermally insulated fire protection system. Structures designed on the basis of the FR90 system feature fire rating EI30 (E₁), EI60 (E₁).

System description:

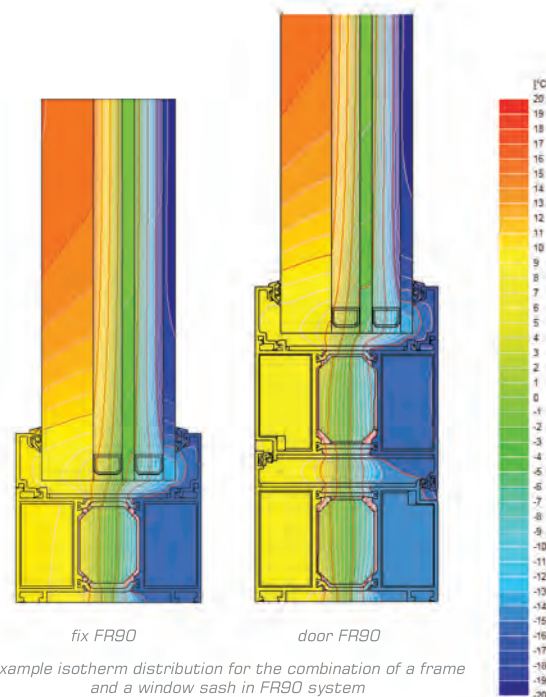
- Installation depth: 90 mm
- Symmetrically designed profile, inner chamber filled with gypsum infill elements (between thermal separation sheets) – for EI30; all chambers filled with gypsum – for EI60
- Compatible with systems with the installation depth of 90 mm (STAR)
- Possibility of using a triple glazing unit (glazing: 20 mm to 68 mm)
- Option of panel infill (panel thickness 60 mm):
 - mineral wool filled panels ($U_p = 0,57 \text{ W/m}^2\text{K}$)
 - gypsum filled panels;
- Application: indoor and outdoor installations
- Structures: single and double doors, fixed glazing
- Maximum dimensions of the tested structure: 6000 x 3000 mm (fixed wall, single glass pane)
- Maximum dimensions of single-leaf doors: 1650 x 2870 mm
- Maximum dimensions of double-leaf doors: 3170 x 2870 mm
- Single-point and multi-point door locks, electric door strikes
- Cover plate hinges, roller hinges
- Solutions with and without thresholds
- Door kick plates (high plinth block)
- Option of air vent installation
- Optimised profiles (one profile type for the door frame and leaf)
- Quick and simple prefabrication (no processing of the glazing bar)
- Acoustics – acoustic testing of double doors featuring fire rating EI30 and EI60 for indoor and outdoor installations: 39 to 47 dB.

Wide range of colours – RAL palette, structural colours, Aliplast Wood Colour Effect, anodic and two-coloured.



FR90 fix section

FR90 door section



fix FR90

door FR90

example isotherm distribution for the combination of a frame and a window sash in FR90 system

TECHNICAL SPECIFICATION

SYSTEM	MATERIAL	DEPTH OF FRAME	DEPTH OF LEAF	GLAZING RANGE	TYPE OF WINDOWS	TYPE OF DOORS
FR90 fix	aluminium / polyamid	90 mm	—	fix 20 - 68 mm	fix	—
FR90 door	aluminium / polyamid	90 mm	90 mm	door 20 - 68 mm	—	single and double doors

PERFORMANCE

SYSTEM	THERMAL INSULATION U_f *	AIR PERMEABILITY	WINDLOAD RESISTANCE	WATERTIGHTNESS
FR90	U_f from 2,145 $\text{W/m}^2\text{K}$	Class 4; EN 12207	C1 (400 Pa); EN 12210	A4 (150 Pa); EN 12208

* Thermal insulation is dependent on a combination of profiles and thickness of the filling.