



AELLE 100 STH

Aluminium-wood windows and doors

www.metra.it



METRA
Italian Style Emotions



METRA. THE ONLY COMPANY TO OFFER A COMPLETE RANGE OF PRODUCTS

OUR SERVICE

ALWAYS CLOSER TO CUSTOMERS

METRA's toll free number is always available in order to support your ideas, suggesting new solutions and finally directing you to Metra's point of sale. Metra's pre and after sale service will always help you in each phase: from your frame choice to installation, from cleaning advice to traceability of your frame history.

DESIGN AND STYLE

METRA's window and door frames include a wide range of aesthetic styles, adding thus value to the traditional and contemporary dwelling spaces, preserving in this manner the original features of buildings restored conservatively. The latest creations provide more luminosity to living spaces thanks to the tapered shapes and the reduced thickness of profiles.

DESIGN COMPLEMENTS

METRA's design complements are offered in a wide range of coordinated shapes distinguished by the original style capable of satisfying and harmonising the aesthetic requirements of any kind of dwelling environment.

Metra's accessories guarantee enhanced performances to one's own window and door frames.

FINISHING

A huge variety of finishing, resistant and chromatically surprising! From metallic colours to sand effects, opaque, glossy.....up to natural wood surface cladding the heart of aluminium.

THE CHOICE OF ALUMINIUM

Aluminium is becoming ever more present in our lives: from simple cans to high-speed trains.

Aesthetically agreeable, malleable, extremely resistant and 100% recyclable.

Aluminium is the ideal material for the creation of windows and doors.

GREEN

METRA is engaged in a low environmental impact production and all its products are Eco-friendly to the maximum extent.

METRA's POINT OF SALE

METRA's point of sale is the place where people enter with a dream and make it come true.



Aluminium-wood windows and doors

AELLE 100 STH

Exceptional energy-saving qualities for windows and doors, including those of large dimensions. AELLE 100 STH provides thermal and acoustic insulation and top of the range durability, as well as excellent shatterproof features. The natural wood finish on the interior side, combined with the large size of the windows, grants AELLE 100 STH the ability to radically enhance your home.



Technical features

Thermal-break series for windows and doors.

Glass thickness: from 26 to 59 mm

Windows series:

79 mm frame basic profiles, 100 mm sash profile with 21 mm internal overlap (Piana line)

89 mm frame basic profiles, 100 mm sash profile with 21 mm internal overlap (Sagomata line)

Air-water-wind tightness: open joint central gasket

Aluminium aesthetic lines: Piana, Sagomata

Wood aesthetic lines: Piana, Sagomata

Doors series:

79 mm coplanar frame and sash profiles

79 mm sash profile

Air-water-wind tightness: double rabbet gasket

Aluminium aesthetic lines: Piana

Wood aesthetic lines: Piana

Applications

- Windows and French windows with one or more vents, bottom-hung, tilt-and-turn, tilt-and-slide
- Entrance doors opening inwards and fixed frames

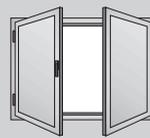
Opening typologies



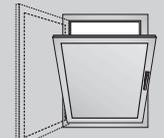
Windows and doors: tilt and slide



Bottom-hung window



Casement windows and doors

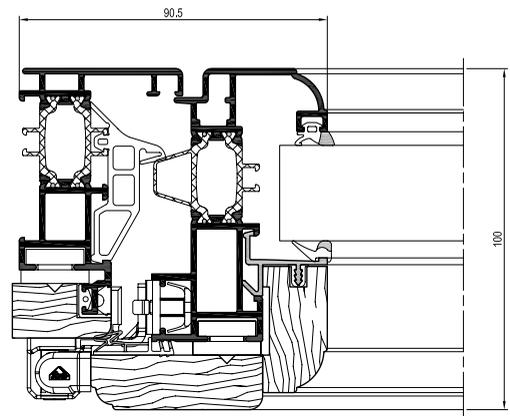


Windows and casement doors: tilt-and-turn

Advantages

- Wide range of finishes
- High-level design
- Maximum thermal and acoustic insulation
- Resistance and structural stability
- Easy maintenance
- Inalterable and long-lasting
- No architectural barriers

Section



ROL White Toulipier	FSB Whitened Ashwood	RAL 1013 Lacquered Toulipier	FVE Green Ashwood	CIL Cherry-wood	FAM Reddish Purple Ashwood	RON Natural oak	FCL Cherry-wood Painted Ashwood	RCA Chestnut-painted Oak	FWH Wengé Ashwood	ROC Walnut-painted Oak	FTA Tobacco Ashwood
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Finishes and coatings

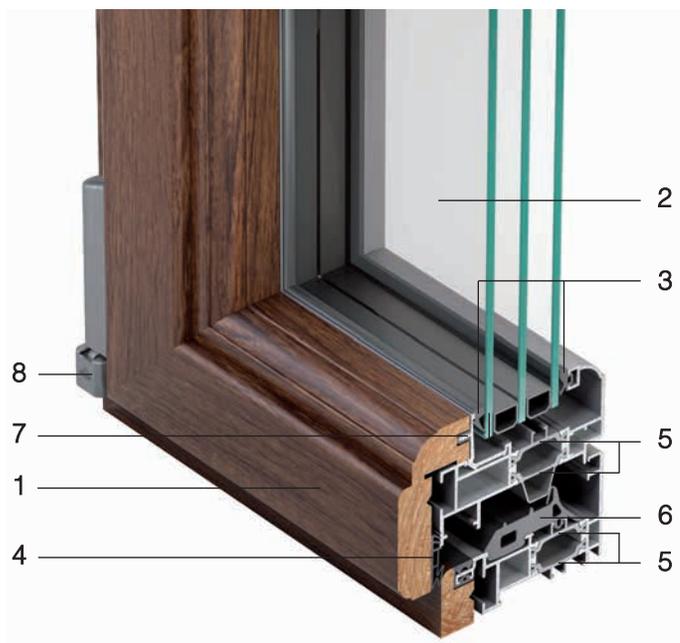
The surface finishing is made using natural pigments with zero environmental impact thus ensuring exceptional aesthetic results and durability such as mat, gloss and extra gloss anodised or sand-effect paint, fantastic to be seen and touched.

The solid wood, in all its types and colours inside, gives warmth and naturalness to the interior concealing the aluminium heart and structure reducing the maintenance operations and keeping their performances in the time.

Design complements

Handles and hinges. The complements and accessories are suitable for all METRA systems. Contemporary shapes with unique and exclusive styles are designed to enhance every latest detail in all types of living space, combining aesthetics and functionality.

Technology



- 1 - Solid wood
- 2 - Insulating triple glazing
- 3 - EPDM glazing gaskets
- 4 - Soundproofing rabbet gasket
- 5 - Energy saving insulating bars
- 6 - Central gasket: EPDM open joint
- 7 - Burglar-proof glazing beads
- 8 - Adjustable hinges

METRA Quality

The use of products and accessories branded Metra, guarantees that you are using materials with long lasting performances and durability.

Metra's systems have been certified by the most important test laboratories in Europe, obtaining the highest performance results.

Just to be sure, choose original profiles, easily recognizable through the brand M which can be found in the internal of the fastening and on each accessory.

Remember that accessories are integral parts of the system and only with METRA's original accessories you can obtain high performances.

Metra is, furthermore, among the first Italian companies to have obtained the trade mark on its own products thus to favour the recognisability for the consumer protection.

The quality of Metra's systems is furthermore guaranteed, by the certified production processes "European trademark" and by the Company Quality System which has been certified by RINA according to ISO 9001:2008 norms.



AELLE 100 STH

Certified performances

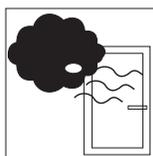


Water tightness EN 1027 - EN 12208

The METRA window or door has not had any seepage of water even with a wind pressure equal to a speed of 124,7 km/h (750Pa).

Air pressure applied km/h	(0Pa)	(50Pa)	(100Pa)	(150Pa)	(200Pa)	(250Pa)	(300Pa)	(450Pa)	(600Pa)	(750Pa)
	0	32,2	45,53	55,77	64,39	72	78,87	96,59	111,54	124,7
Class achieved	1A	2A	3A	4A	5A	6A	7A	8A	9A	E750

Capacity of the window or door to block seepage of water when it is struck by a water flow and there is a pressure difference between the internal and external side.

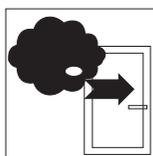


Air permeability EN 1026 - EN 12207

The METRA window or door was subjected to a wind pressure equal to a speed of 111,54 km/h (600Pa) and passed the test with positive results.

Air pressure applied	(150Pa)	(300Pa)	(600Pa)	(600Pa)
Class achieved	1	2	3	4

Characteristic of a closed vent to let air pass through when the internal and external pressures are mutually different; the smaller the volume dispersed, the greater the window or door quality.



Resistance to wind load EN 12211, EN 12210

The METRA window or door was subjected to a wind pressure equal to a speed of 203 km/h (2000Pa) and passed the test with positive results.

Air pressure applied	(400Pa)	(800Pa)	(1200Pa)	(1600Pa)	(2000Pa)	(>2000Pa)
With deflection	A (1/150)		B (1/200)		C (1/300)	
Class achieved	1	2	3	4	5	Exxx

Capacity of a window or door subjected to high pressure and/or suction, such as those caused by wind, to remain within admissible deformation limits and to conserve its initial properties so as to ensure protection and safety to the users.

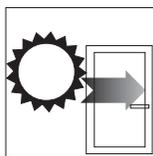


Soundproofing power EN ISO 140-3, EN ISO 717-1

METRA windows and doors are able to cut out airborne noise from the outside up to 44dB.

Up to 44 dB

Capacity of a window and door to attenuate external noise.



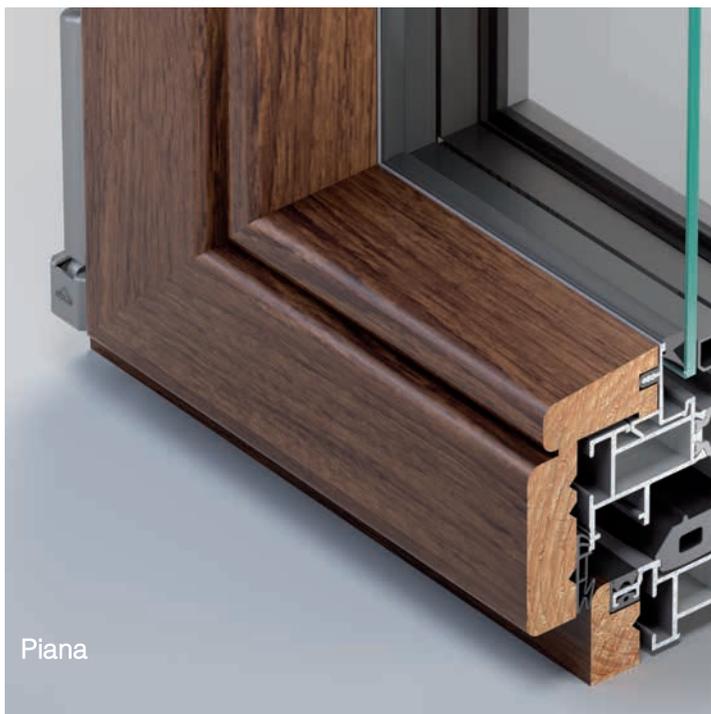
Thermal transmittance

METRA's windows and doors comply with the energy saving standards.



* Single casement window 1230 x 1480 mm; Ug=0.6 W/m²K, psi=0.05 W/m K

The heat transmission rate U is the heat flow which goes through the window or door according to m² of surface and for each degree of difference in temperature between exterior and interior. The unit of thermic transmission measurement is W/m²K.



Piana



Sagomata

Curtain walls

Casement windows and doors

Aluminium-wood windows and doors

Sliding windows and doors

Internal doors

Systems for balconies

Verandas

Shading systems

Photovoltaic applications

Accessories and design complements

Finishes and coatings



METRA

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METRA uses ecological paper for its documentation
and low environmental impact printing products.



METRA Documentation
Brochure
AELLE 100 STH - English

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