

The image shows the interior of a large, historic swimming pool. The pool is rectangular and filled with water, reflecting the surrounding architecture. The floor of the pool is covered in a green and white checkered tile pattern. The walls are made of light-colored stone or concrete, featuring a series of arches and windows. The ceiling is a high, vaulted structure with a series of arches. A large, multi-paned window is visible at the far end of the pool. A modern, geometric pendant light hangs from the ceiling. The overall atmosphere is one of grandeur and historical significance.

# Janisol HI

Strong steel for strong insulation of  
doors, windows and fixed glazing units

**JANSEN**

**METALFORM™**

# Janisol HI

## For powerful insulation



Highly insulated steel doors reduce thermal transmittance to a minimum

In busy public buildings in particular, the requirements for security, durability and thermal insulation have increased dramatically. Janisol HI steel doors conveniently combine mechanical stability with high thermal insulation properties in one single steel profile system.

Thanks to insulating bars made from glass fibre-reinforced polyurethane, Janisol HI achieves  $U_d$  values to  $1.0 \text{ W/m}^2\text{K}$ . With a basic depth of 80 mm, infill unit thicknesses of up to 57 mm can be used. A comprehensive and coordinated range of fittings and accessories, as well as a range of thresholds, which can be selected to suit the situation, provide the perfect solution for all possible applications. Thanks to the specially formed insulating bars, the lock can be installed in the centre of the profile very easily and efficiently. Passivhaus certification has been obtained for the fixed glazing units. That is the very first one for a steel window.

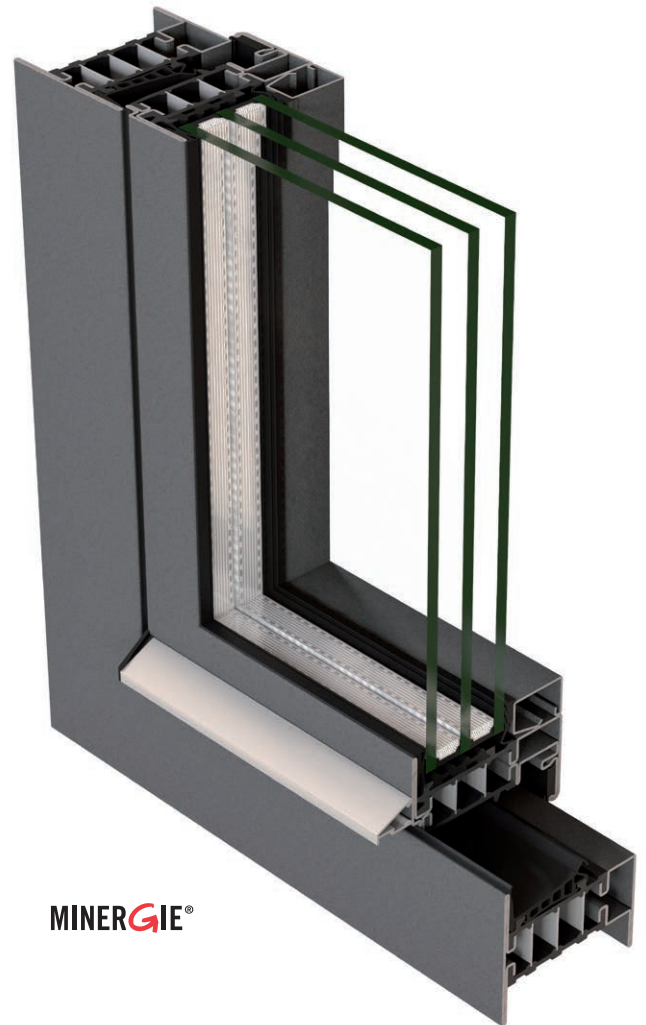


MINERGIE®

## Steel windows with optimum thermal break

Modern windows must meet a number of different demands and perform a variety of functions. They must save energy, be airtight, watertight and easy to use, meet structural requirements, but also be highly attractive.

Janisol HI steel windows and fixed glazing feature insulating bars made from glass fibre-reinforced polyurethane and boast optimum thermal and structural properties. They achieve  $U_w$  values to  $0.69 \text{ W/m}^2\text{K}$  for fixed glazing and  $0.8 \text{ W/m}^2\text{K}$  for windows. With a basic depth of 90 mm, vent heights of up to 2800 mm and a vent weight of 180 kg are possible. What is more, different infill unit thicknesses of up to 67 mm can be used. Due to the slimline external face width and the wide variety of coating options, Janisol HI steel windows can meet high thermal insulation requirements in terms of both function and design.















MINERGIE®



## Performance characteristics doors

Norm	Characteristic		Classification / Value											
 EN 12210	Resistance to wind load	npd	1 (400)	2 (800)		3 (1200)		4 (1600)		5 (2000)		Exxx (>2000)		
 EN 12208	Watertightness	npd	1A (0)	2A (50)	3A (100)	4A (150)	5A (200)	6A (250)	7A (300)	8A (450)	9A (600)	Exxx (>750)		
 EN ISO 10140	Sound insulation $R_w$ (C, $C_{tr}$ ) (dB)	npd	up to $R_w$ 45 dB (-2; -6)											
 EN ISO 10077-1	Thermal production $U_f$ (W/(m²·K))	npd	from 0,74 W/m²K											
 EN 12207	Air permeability	npd	1 (150)		2 (300)		3 (600)		4 (600)					
 EN 1192	Classification of strength requirements	npd	1		2		3		4					
 EN 12219	Resistance to change in temperature	npd	up to 3(d) / 3(e) Technical data: «Behaviour between different climates in accordance with EN 1121»											
 EN 1627	Burglar resistance	npd	1		2		3		4		5		6	
 EN 14024	Metal profiles with thermal barrier		CW / TC2											
 EN 12400	Mechanical durability		D	1 5'000	2 10'000	3 20'000	4 50'000	5 100'000	6 200'000	7 500'000	8 1'000'000			
 EN 12217	Operating forces	npd	0				1			2				
 DIN 18008-4	Prefabricated glazing suitable for safety barrier loading								Appendix D.1.2 fulfilled					

## Performance characteristics windows

Norm	Characteristic		Classification / Value										
 EN 12210	Resistance to wind load	npd	C1 (400)		C2 (800)		C3 (1200)		C4 (1600)		C5 (2000)		
 EN 12208	Watertightness	npd	1A (0)	2A (50)	3A (100)	4A (150)	5A (200)	6A (250)	7A (300)	8A (450)	9A (600)	Exxx (>750)	
 EN ISO 10140	Sound insulation R <sub>w</sub> (C, C <sub>tr</sub> ) (dB)	npd	up to R <sub>w</sub> 46 dB (-2; -6)										
 EN ISO 10077-1	Thermal production U <sub>f</sub> (W/(m²·K))	npd	from 0,74 W/m²·K										
 EN 12207	Air permeability	npd	1 (150)		2 (300)		3 (600)		4 (600)				
 EN 14024	Load-bearing capacity of safety devices		Requirement satisfied										
 EN 14024	Metal profiles with thermal barrier		CW / TC2										
 EN 12400	Mechanical durability		D	1 5'000	2 10'000	3 20'000	4 50'000	5 100'000	6 200'000	7 500'000	8 1'000'000		
 EN 12217	Opewrating forces	npd	0				1			2			
 EN 1627	Burglar resistance	npd	1		2		3		4		5		6
 ISO 16000	Dangerous substances		Requirement satisfied										
 DIN 18008-4	Prefabricated glazing suitable for safety barrier loading							Appendix D.1.2 fulfilled					

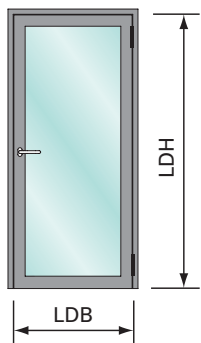
npd = no performance determined

To achieve the maximum performance values and/or the CE marking, the expert appraisal report must be observed.

# Janisol HI

## Technical data

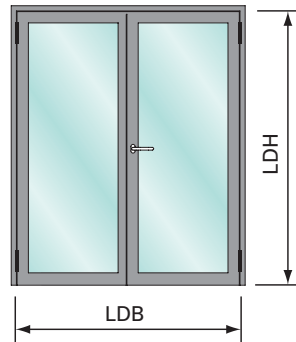
### Doors



LDB Clear opening width  
max. 1360 mm  
min. 600 mm

LDH Clear opening height  
max. 2992 mm  
min. 1900 mm

Weight of leaf max. 280 kg

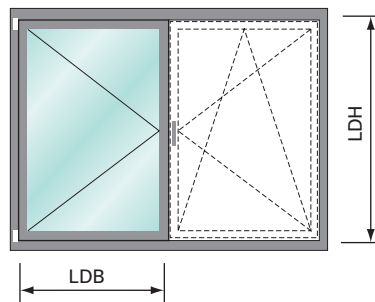
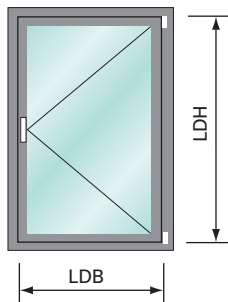
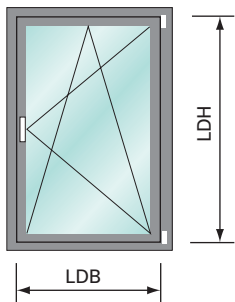


LDB Clear opening width  
max. 2740 mm  
min. 1200 mm

LDH Clear opening height  
max. 2992 mm  
min. 1900 mm

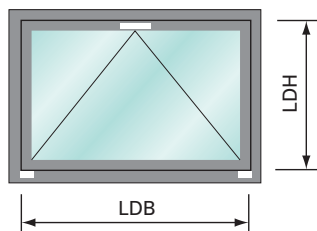
Weight of leaf max. 280 kg

### Windows



Max. FFH = 2760 mm  
FFB = 1435 mm  
Min. FFH = 600 mm  
FFB = 600 mm

Max. weight: 180 kg  
FFB/FFH: ≤ 2



Max. FFH = 2760 mm  
FFB = 2760 mm  
Min. FFH = 600 mm  
FFB = 600 mm

Max. weight: 80 kg (2 hinges)  
120 kg (3 hinges)  
FFB/FFH: ≤ 2

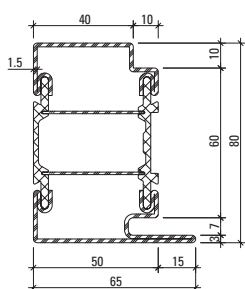




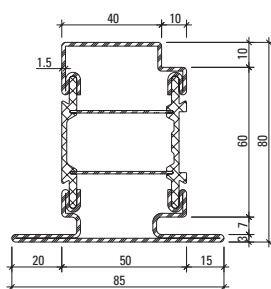
# Profile range

## Janisol HI

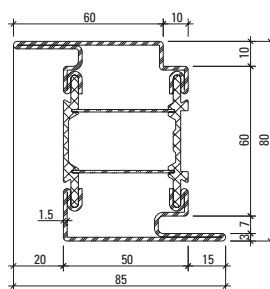
### Doors



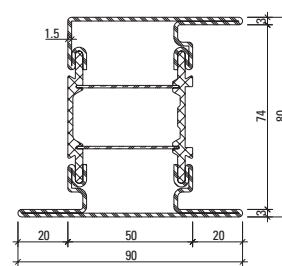
680.013 Z



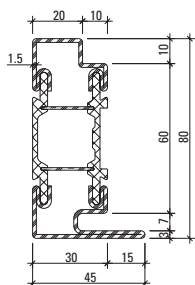
680.114 Z



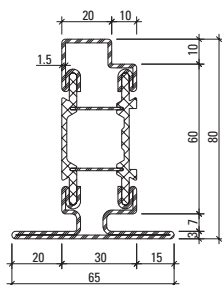
680.416 Z



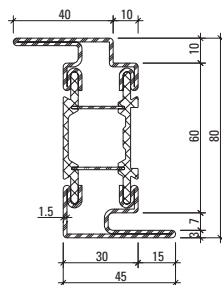
680.652 Z



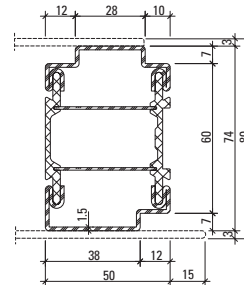
680.010 Z



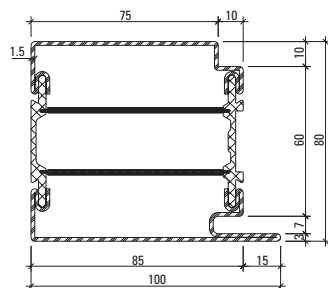
680.110 Z



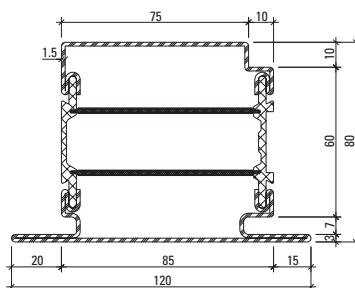
680.411 Z



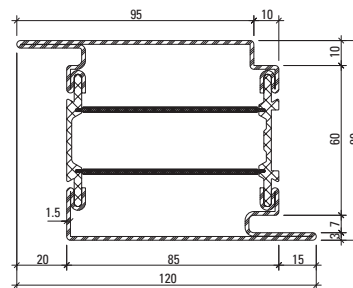
680.051 Z



680.016 Z



680.115 Z

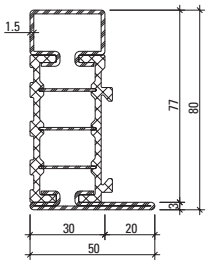


680.417 Z

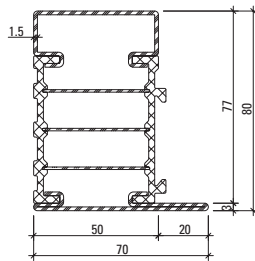
Z = strip galvanised steel



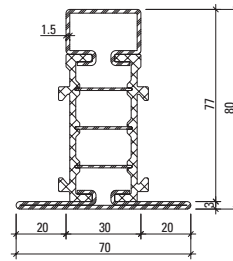
## Fixed glazings



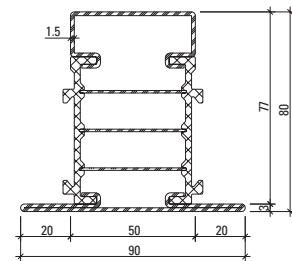
681.630 Z



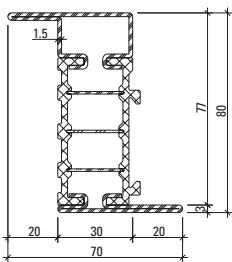
681.650 Z



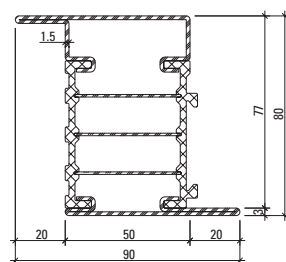
682.630 Z



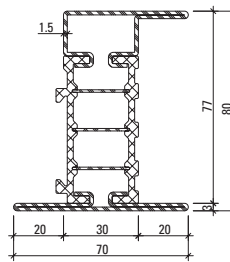
682.650 Z



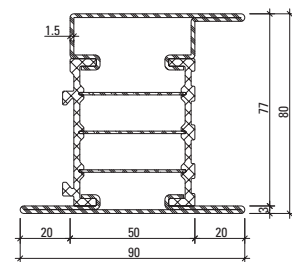
683.630 Z



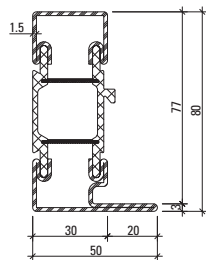
683.650 Z



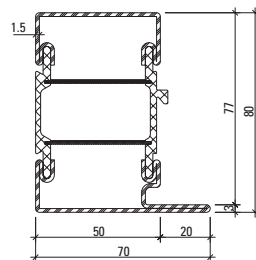
685.630 Z



685.650 Z

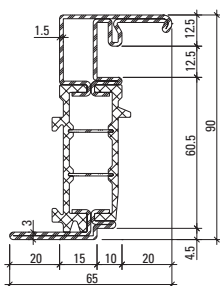


681.635 Z

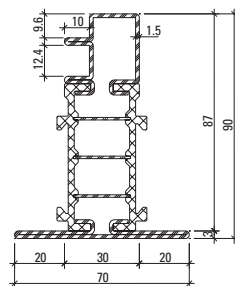


681.655 Z

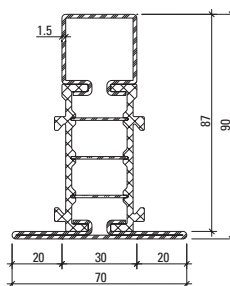
## Windows



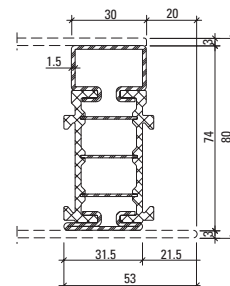
680.900 Z



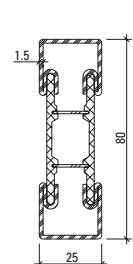
680.901 Z



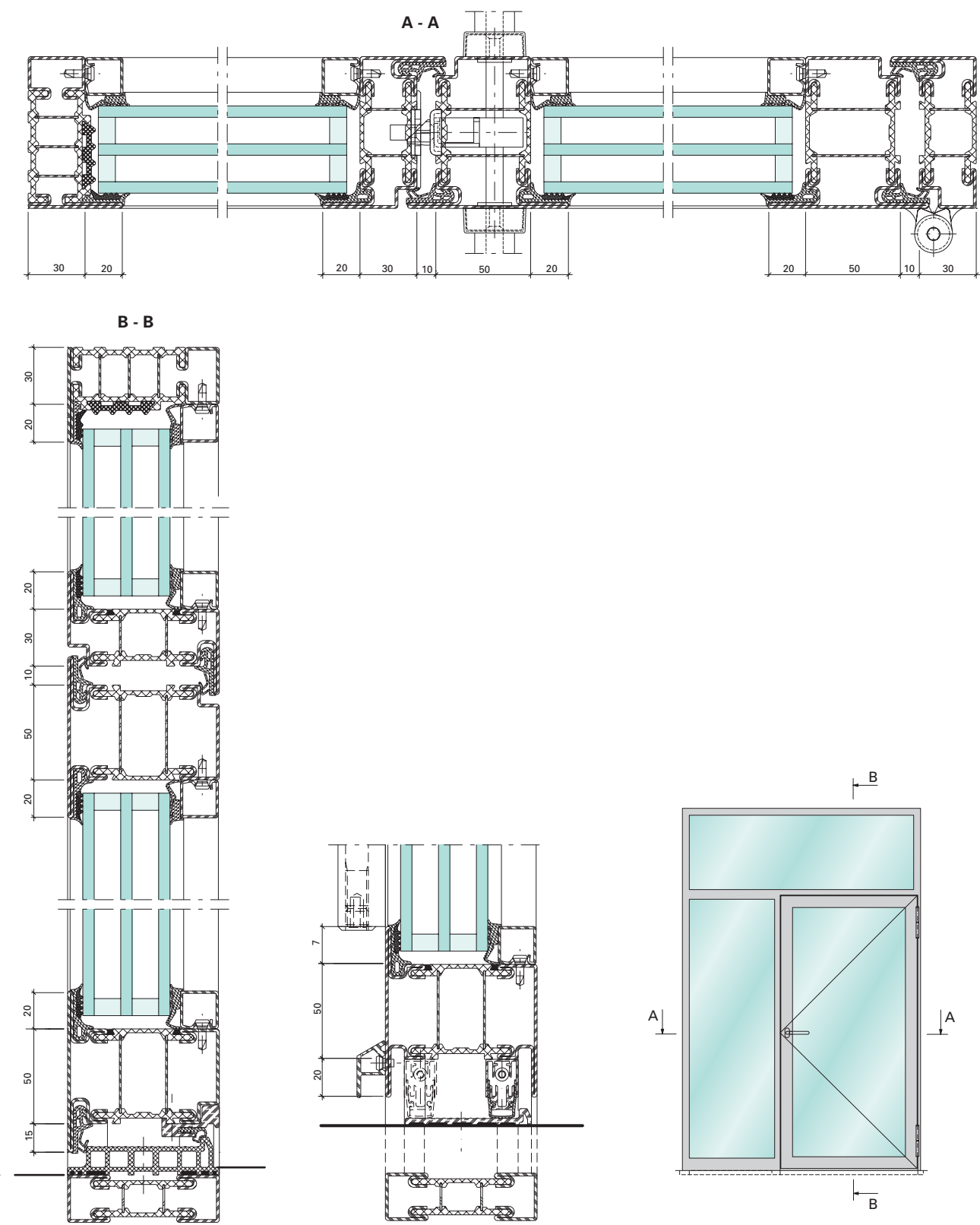
680.902 Z



680.060 Z

600.012  
600.012 Z

Example of Janisol HI doors



Example of Janisol HI windows

