

— STEEL STRUCTURE · SANDWICH PANELS · PROJECT-BASED CONFIGURATION

Modular containers

Modulix Industrial Solutions

6000 mm

LENGTH

2400 mm

WIDTH

2600 mm

HEIGHT

weld-free

SCREWED AND BOLTED
JOINTS

OVERVIEW

The base module

A prefabricated module with a steel structure and PUR sandwich panel envelope. Partitioning and fittings are defined for the chosen configuration.



6000 mm

LENGTH

2400 mm

WIDTH

2600 mm

HEIGHT

In this catalogue

Structure and technology	03	Walls, ceiling and floor	04
Construction options	05	Doors and windows	06
Electrical installation	07	Plumbing installation	08
Design parameters	09	Technical references	10
Configuration examples	11	Contact	12

— LOAD-BEARING SYSTEM

Structure and technology

Profiles are cold-formed by roll forming. Shapes, service perforations and connection holes are produced under computer-aided design control.

135 x 135 mm

CORNER POSTS

RAL 7012

STRUCTURE PAINT

625 mm

CHASSIS TIE SPACING

Manufacture and assembly are weld-free. Joints use screws and/or bolts with dedicated specifications.

ELEMENT	SPECIFICATION
Corner posts	Special roll-formed profiles, 135 × 135 mm, 1.5 mm thick; painted RAL 7012.
Corner connection profiles	Special bent profiles, 5.00 mm thick; painted RAL 7012.
Bottom chassis	CC165, t = 1.50 mm, galvanised and painted DX51 profiles, RAL 7012; CC140, t = 1.00 mm, galvanised and painted DX51 profiles.
Top chassis	CC165, t = 1.50 mm, galvanised and painted DX51 profiles; RAL 7012.
Bottom chassis ties	CC140, t = 1.00 mm, spaced at 625 mm.
Intermediate posts	CC90, t = 1.50 mm, galvanised and painted DX51 profiles; RAL 7012.
Bracing / if required by the project	CC90, t = 1.50 mm, galvanised and painted DX51 profiles; RAL 7012.
Handling and transport	Via the connection plates at the container corners.

Additional elements - roof, stairs, railings and intermediate floors - are described separately on page 5.

— ENVELOPE AND FINISHES

Walls, ceiling and floor

Build-up specified for the base module.

01

External and internal walls

Sandwich panels with PUR core; RAL 9002 finish. Panel height: 2320 mm.

50 mm

02

Ceiling

Sandwich panel with PUR core; RAL 9002 finish.

40 mm

03

Floor

Fibre-cement board + Mineflo PVC floor covering. In WC-shower containers: epoxy finish.

16 mm



EXAMPLE INTERIOR FROM THE TECHNICAL DOCUMENTATION

PROJECT CONFIGURATION

Construction options

The elements below are included if required by the project.

Additional roof

ELEMENT	SPECIFICATION
Structure	Special-shape galvanised and painted profiles, DX51D+Z.
Roofing	Painted sheet RAL 9002, 0.50 mm thick, 27/200 trapezoidal profile.
Eaves	17 cm at the truss ends and 20 cm along the eaves. Dimensions may vary with the project.
Gutters and downpipes	Included / not included, depending on configuration.

Stairs and railings

ELEMENT	SPECIFICATION
Structure and railings	Tubular and special bent profiles; galvanised, painted over industrial primer.
Tread surface	Diamond-pattern chequer plate, specification 3/4.
Handrail	Tubular profiles.

Intermediate floor and corridor

ELEMENT	SPECIFICATION
Intermediate floor structure	CC90, t = 1.50 mm, galvanised and painted DX51 profiles.
Floor / corridor finish	16 mm fibre cement + Mineflo PVC floor covering.
Corridor exit door	900 × 2000 mm, oven-baked powder-coated sheet, RAL 9002, with panic bar.

3/4 is the chequer plate notation from the technical specification; thickness is confirmed at configuration.

JOINERY

Doors and windows

External, internal and WC doors; windows and ventilation elements.

Doors

PROPERTY	EXTERNAL DOOR	INTERNAL DOOR	WC DOOR
Dimensions	900 × 2000 mm	720 × 1970 mm	700 × 2000 mm
Door leaf	Oven-baked powder-coated sheet, RAL 9002	American-style moulded panel door, white	PVC door, white
Frame	Galvanised sheet, oven-baked powder coated, RAL 9002	Galvanised sheet, oven-baked powder coated, RAL 9002	Galvanised sheet, oven-baked powder coated, RAL 9002
Lock	Mortise, with cylinder	Mortise, with cylinder	Mortise
Handle	Metal, satin grey	Metal, oven-baked powder coated	PVC

Windows and ventilation

ELEMENT	SPECIFICATION
PVC window	1000 × 1000 mm; white PVC.
PVC bottom-hung window	600 × 400 mm; single frosted glass.
Insulated glazing	4 + 11 + 4 mm.
Ventilation grille	150 × 150 mm; included / not included.
Insect screen	Fixed; included / not included.

Single frosted glass is specified for the 600 × 400 mm bottom-hung window. The ventilation grille and fixed insect screen may or may not be included.

— SURFACE-MOUNTED

Electrical installation

Surface-mounted sockets, switches and cable runs.

COMPONENT	SPECIFICATION
Lighting / standard rooms	Globe-type luminaire.
Lighting / wet rooms	Globe-type luminaire.
Lighting / above the door	Globe-type luminaire with protective grille.
Sockets and switches	Surface-mounted.
Socket cables	NYM 3 × 2.5 mm ² , surface-mounted in cable trunking.
Lighting cables	NYM 3 × 1.5 mm ² , surface-mounted in cable trunking.

Installations not included

DATA

Data installation

TV

TV installation

UPS

UPS installation

HVAC

Air-conditioning installation

Connection to the main power grid is the client's responsibility.

— SURFACE-MOUNTED

Plumbing installation

Specifications of the plumbing installation and sanitary fittings.

COMPONENT	SPECIFICATION
Clean water pipes	PPRC pipes, with TSE certification stated in the specification.
Waste water pipes	Included.
Valves	Wall valves at washbasins; isolation valves before the flexible hoses for the WC and all taps.
Taps	Chrome-plated metal taps, concealed.
Washbasin	40 × 50 cm, white ceramic, with pedestal.
WC pan	Ceramic, with plastic cistern.
Squat toilet	Ceramic.
Shower tray	80 × 80 cm, acrylic.
Composite WC-shower unit	Not included.
Kitchen sink	50 × 100 cm, stainless steel, with drainer and base cabinet.
Accessories	Not included.
Connection to the mains	Client's responsibility.

Sanitary fittings and their positions are specified for the ordered configuration.

LOADS AND CALCULATION

Design parameters

Values and calculation references given in the technical documentation.

80 kg/m²

SNOW LOAD

TS 498 / TS EN 1991-1-3

102 km/h

WIND SPEED

Stated pressure: 50 kg/m² · TS 498 / TS EN 1991-1-4

250 kg/m²

CHASSIS LOAD CAPACITY

Declared value for the chassis

Seismic conditions

According to TBDY 2018. Depending on building use and category: I = 1 / 1.2 / 1.4 / 1.5 and n = 0.3 / 0.6.

Design references

Structural design: EUROCODE 3, TS 498, TS 648, TS 11372.

Thermal insulation: TS 825 and the thermal insulation regulation of 8.05.2000.

Static and seismic calculations are made for the site, project and applicable loads. The documentation mentions SAP2000, CFS, STA4CAD, Tekla Structures and PROCAD.

— REFERENCED STANDARDS

Technical references

References are reproduced from the technical specification. TS prefixes and regulation names are kept; applicability is checked for the specific project and site.

REFERENCE	SCOPE STATED IN THE DOCUMENTATION
TS 11372	Design rules for light steel structures with cold-formed profiles.
TS 648	Design and execution rules for steel structures.
TS 6793	Imposed and occupancy loads for dwellings and public buildings.
TS 498	Design load values for dimensioning building elements.
TS ENV 1993-1-2	Eurocode 3: design of steel structures. Part 1-2: general rules and structural fire design.
TS ENV 1090-1	Execution of steel structures. Part 1: general rules and rules for buildings.
TS ENV 1998-1	Eurocode 8: design of structures for earthquake resistance. General rules, seismic actions and rules for buildings.
TS EN 10162	Cold-formed steel profiles: technical delivery conditions and dimensional and cross-sectional tolerances.
TS 825	Thermal insulation of buildings.
TS 901-1 EN 13162	Factory-made mineral wool thermal insulation products for buildings. Specification.
TS EN 13500	External thermal insulation composite systems (ETICS) based on mineral wool. Specification.
TS EN ISO 11925-2	Reaction to fire: ignitability of building products subjected to direct flame impingement. Single-flame source test.
TS EN 20898	Mechanical properties of fasteners.
16.06.2004 / 25494	Internal electrical installations regulation, as stated in the documentation.
ABYYHY 2007	Regulation for buildings in disaster-prone areas, as stated in the documentation.
R.G. 26.07.2002 / 24822	Regulation on fire protection of buildings, as stated in the documentation.

— IMAGES FROM THE DOCUMENTATION

Configuration examples

Module assemblies with external walkways, stairs and an additional roof.



From module to complex

The configuration, number of storeys, circulation and additional elements are defined by the project.

Original photos for illustration only. They do not represent the standard configuration of each module.



Space starts with a module.

FOR CONFIGURATION

- 01 Intended use of the space
- 02 Number of modules
- 03 Partitioning
- 04 Fittings and installations
- 05 Project location

CONTACT

+40 755 823 225

modulixindustrialsolutions@gmail.com

AVAILABILITY IS CONFIRMED FOR EACH PRODUCT.