

Architecture





INTRODUCTION



TPRO is a specialist in **design**, **supply**, **installation**, **qualification** and **start up** of turnkey projects for the **pharmaceutical**, **veterinarian**, **biotech** and similar industries.





INTRODUCTION



TPRO offers a complete clean room technology package as a part of a turnkey project

Engineering

Project Management

Supply & Installation

Start-Up

Concept Design

Basic Engineering

Detailed Engineering

Project Structure
Equipment Management
Supervision
Coordination
Cost and time control
Procurement
Detailed Project Review

CLEAN ROOM
Architecture
Air Treatment
Associated Equipment
Control & Monitoring

PROCESS
PW/WFI/PS
CIP/SIP
Process Installations
Waste Treatment System

QUALIFICATION PROJECT PLAN

User Requirements DQ

FAT SAT

OQ

10

COMMISSIONING



INTRODUCTION



Layout design is fundamental to maintaining containment / sterility commitments. The laboratory interior has to be designed so that it is easily cleaned and sanitized, inorganic, impermeable to liquids and resistant to any chemical agents that might be employed.





WALL PANEL





Sandwich panels consist of two oven-lacquered **galvanized steel** sheets. The finish gives them good chemical resistance to detergents and disinfectant products that are normally used in clean rooms

TECHNICAL DATA	
>SURFACE	0.6 mm lacquered galvanized steel
>INSULATING CORE	Expanded Polystyrene (EPS) Extruded Polystyrene (XPS) Rock wool (RW) Polyurethane (PU) Polysocyanurate (PIR) Honey Comb (HC)
>MEASUREMENTS	Height: 6.000 mm onwards Width: 200 mm – 1.200 mm Thickness: 50 mm



WALL PANEL





Sandwich panels consist of two **phenolic resin sheets**. These sheets have excellent chemical resistance to detergents and disinfectant products that are normally used in clean rooms.

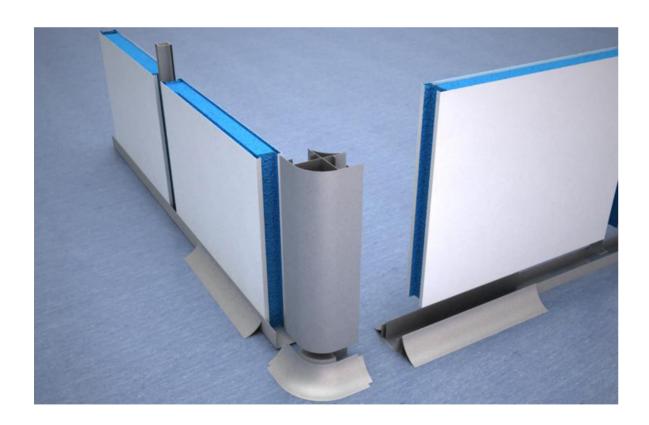
TECHNICAL DATA	
>SURFACE	3 mm phenolic resin
>INSULATING CORE	Extruded Polystyrene (XPS) Rock wool (RW) Polysocyanurate (PIR) Honey Comb (HC)
>MEASUREMENTS	Height: 6.000 mm onwards Width: 200 mm – 1.200 mm Thickness: 50 mm

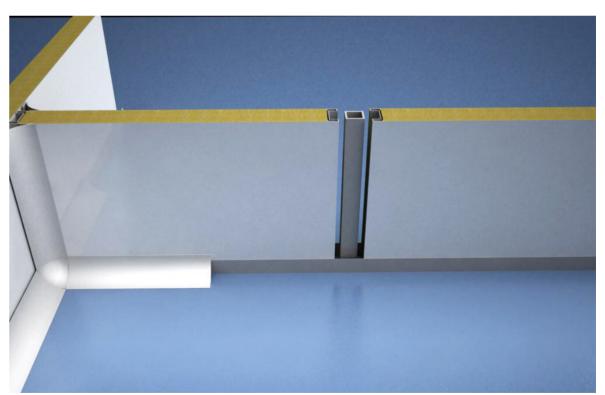


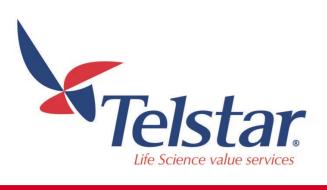
ASSEMBLY SYSTEM: WALL PANEL



The panels rest on an **U-shaped galvanized steel** sheet fixed to the floor. They are attached to each other by an **aluminium connector** (30 x 30 mm). All these elements together form a continuous and self-supported unit. The connector can also be used to integrate cables and process tubing. Joints are sealed with a silicone run.

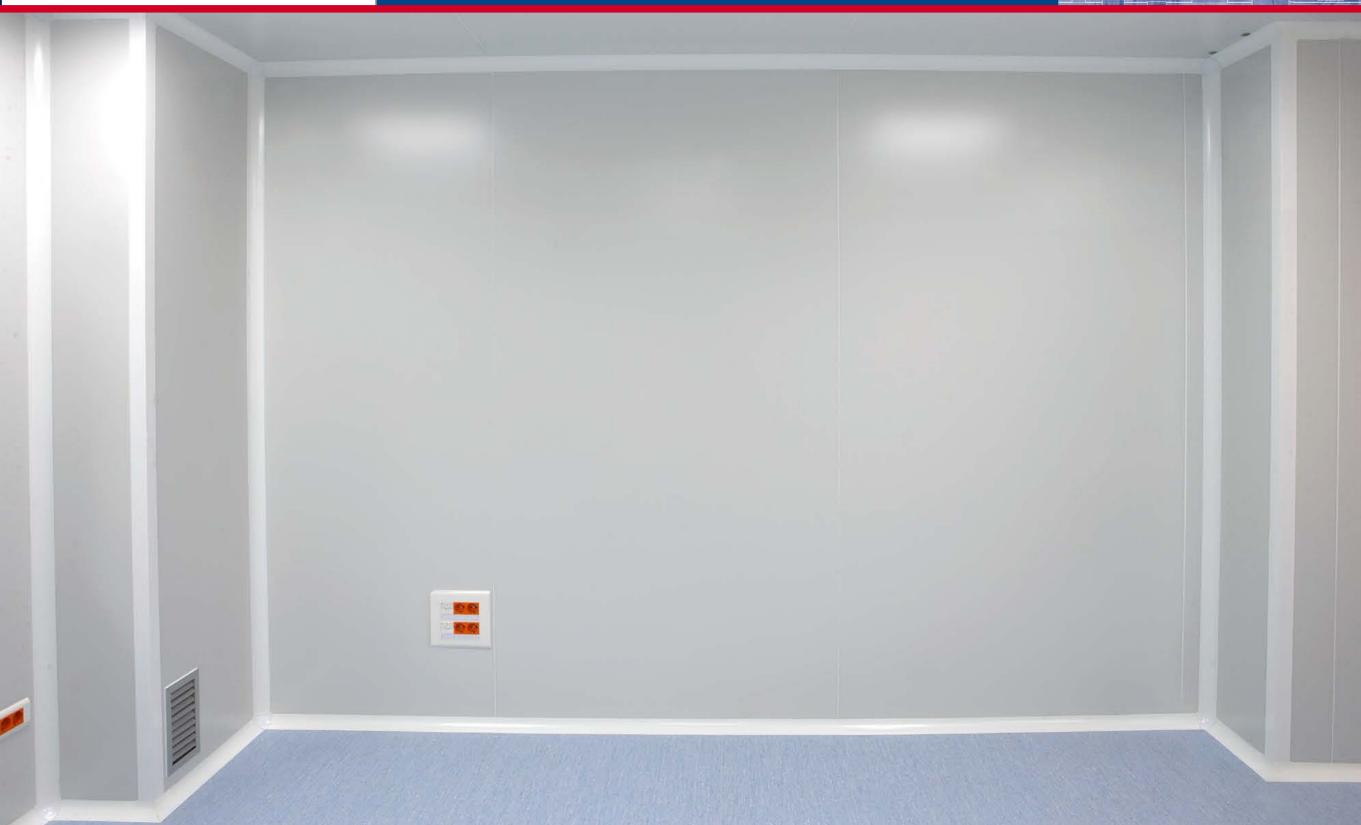






WALL PANEL







CEILING PANEL





Sandwich panels consist of two oven-lacquered **galvanized steel** sheets. The finish gives them good chemical resistance to detergents and disinfectant products that are normally used in clean rooms

TECHNICAL DATA

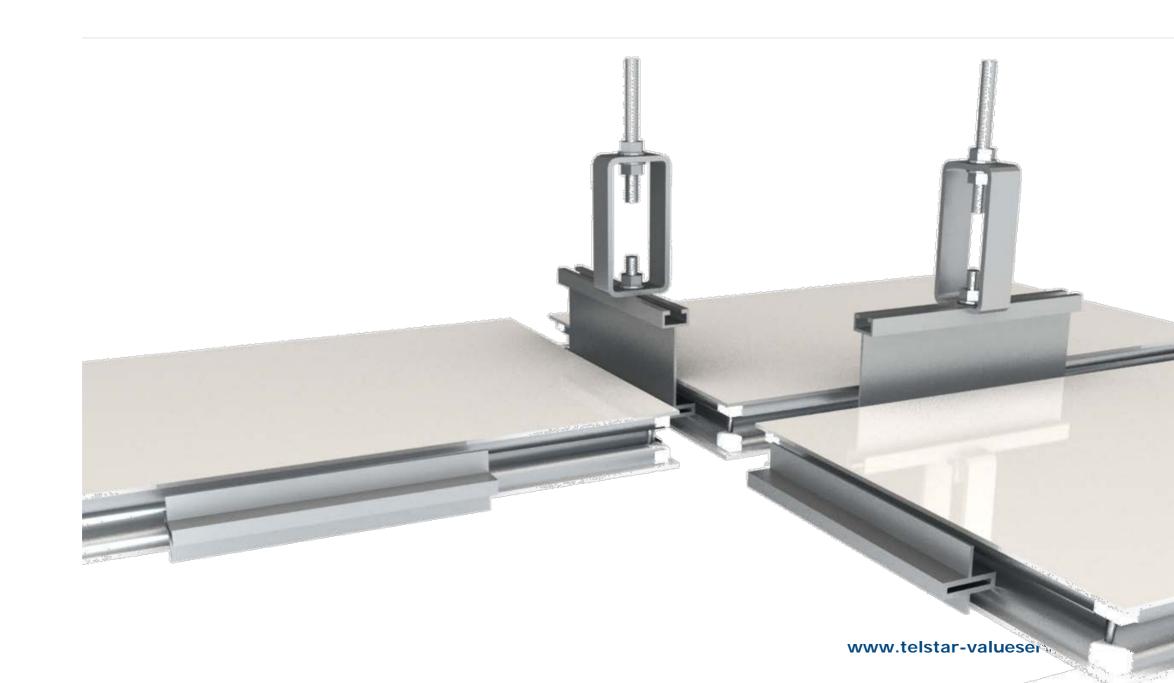
>SURFACE	0.6 mm lacquered galvanized steel
>INSULATING CORE	Expanded Polystyrene (EPS) Extruded Polystyrene (XPS) Rock wool (RW) Polyurethane (PU) Polysocyanurate (PIR) Honey Comb (HC)
>MEASUREMENTS	Height: 6.000 mm onwards Width: 200 mm – 1.200 mm Thickness: 50 mm



ASSEMBLY SYSTEM: CEILING PANEL



The panels are attached to each other by an aluminum connector, thereby making a continuous and self-supporting unit. Panel suspension is done by special connectors, levelling supports and screwed rods.





CEILING PANEL



DUCTS





CEILING PANEL







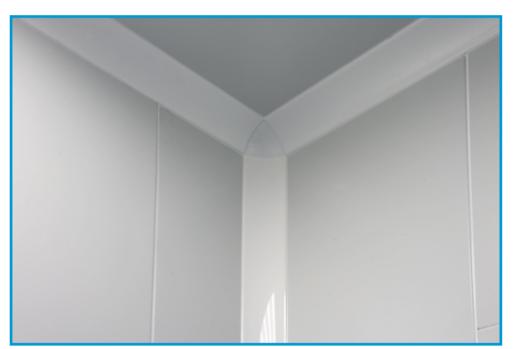
SANITARY FINISHES



Anodized aluminum or **PVC** sections, easy to clean, used for both horizontal and vertical joints between panels.











SEAMLESS FLOORING



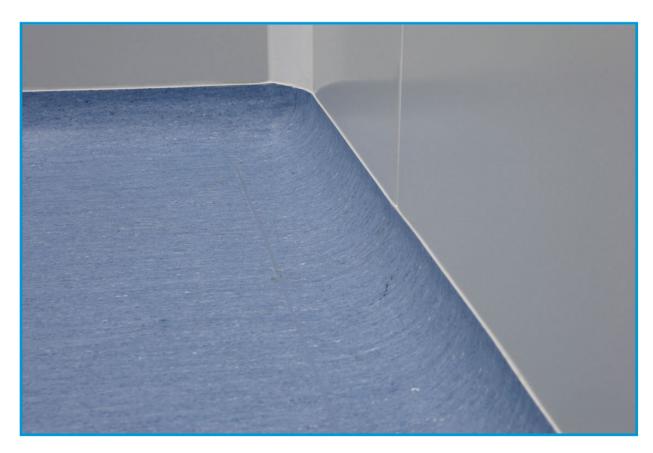
Panel/flooring fixation system using an adjustable base that makes possible to **level the profile perfectly horizontal**.

The system doesn't use sanitary profiles as scotia in panel/flooring joints, thereby ensuring a continuous and even line.

Seamless flooring allows the implementation of **monolithic flooring in PVC or epoxy resin**, with coved sanitary finishes.



ASSEMBLY SYSTEM



SEAMLESS FLOORING



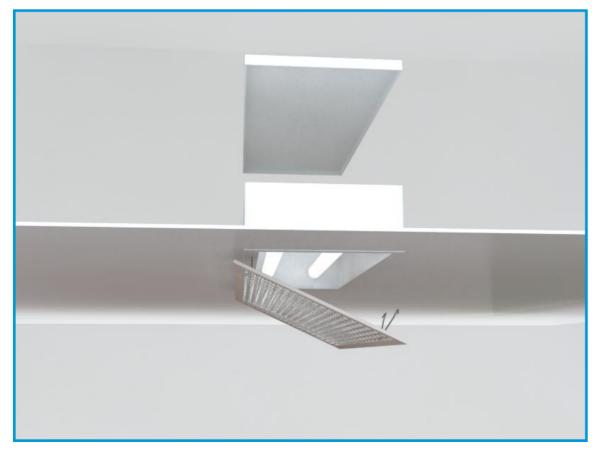
LIGHTING



Built with oven-lacquered metal sheet 1 mm thick, to fit in the ceiling panel.

Easy to access from the top through a screwed cover with a sealing gasket, and from the bottom through a diffuser fastened with internal springs.

There are four different types of diffuser: transparent glass, safety glass, opal glass and prismatic diffuser.







FALSE CEILING: LIGHTING



DOORS



Doors comprise of an interior **steel or phenolic resin** sandwich panel. The doors are set in wall panels to form a **continuous structure**, thereby facilitating surface cleaning.



Double metallic door with window and handle

STANDARD DIMENSIONS (mm)		
1 SHEET	2 SHEETS	
700x2.033	(700+400) x2.033	
800x2.033	(900+400) x2.033	
900x2.033	(800+800) x2.033	
1.000x2.033	(900+900) x2.033	

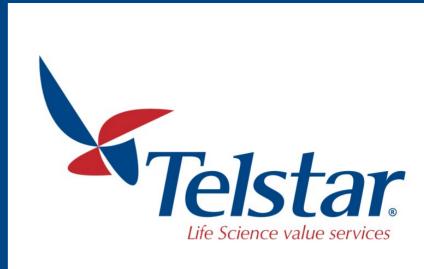
Other dimensions available on request



Double phenolic resin door with window and handle















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