Vitreous enamel
Varnished stainless steel
Corian ®
Laminate HPL

Design and realization of Operating Blocks and/or Operating Rooms with “turnkey” formula
Tecnosmalto Group srl designs and supplies panels for making self-supporting partitions and wall coverings on site. The company uses qualified personnel with many years experience in the health sector. The systems the company provides are so versatile that they can be used in new buildings and in the restructuring of hospitals.

The focused study we carried out relating to the needs of the health sector, such as having environments that cannot be attacked by bacteria, chemical or organic agents, extremely high hygiene conditions and areas which are easy to clean, led us to identifying materials with particular characteristics from a sanitary hygienic and aesthetic point of view.

Tecnosmalto Group provides different types of materials to the health sector:
- vitreous enamel
- varnished stainless steel
- Corian ®
- laminate HPL

“Particular importance is given to defining solutions that make operating theatres aseptic and safe areas”
The partitions manufactured by Tecnosmalto Group are made of full length panels which contain small non-toxic silicone seals, specifically designed to adhere totally to panels. The panels are installed on self-supporting metal structures that permit easy access to systems, since all that needs to be done is to dismantle a panel in the area where works need to be carried out.

“Health sector

“The metal structure construction solution permits the installation of technological systems: air, electronic medical apparatuses, and medical gases”
Tecnosmalto Group srl is able to satisfy all design needs, equipping areas with all the necessary technical fittings, such as the following:

- automatic and manual sliding doors
- walls made to technical specifications
- air suction and blowing equipment
- windows with guiding slits for metal bars
- dirt removing hoppers
- sinks for surgeons
- flat tables for laboratories
- diaphanoscope
- clocks/seconds counters
- panels with sockets for medical gases or electrical sockets

All technical requirements are totally integrated in the structures and therefore are geometrically aligned to the perimeter walls, so as to facilitate clearing and disinfection activities in the areas.

Vitreous enamel is an inorganic material with a composition similar to glass, which is fired in an oven at an extremely high temperature (830°C) after being attached to a metal support. During firing, or vitrification, it undergoes a chemical and physical transformation which creates a new material called vitreous enamel.

Vitreous enamel is often used in the health sector because of its exceptional technical characteristics:

**RESISTANCE TO AGGRESSIVE CHEMICALS**
The glass-like surface of vitreous enamel is not attacked by aggressive chemical agents such as organic solvents, saline solutions, base solutions, detergents, oils, fats and most acids.

**HYGIENE**
Being hard, compact, inert, impermeable and non-porous, moulds and bacterial colonies cannot grow on vitreous enamel surfaces.

**RESISTANCE TO SCRATCHES AND ABRASION**
Vitreous enamel has a hard surface, similar to glass. It does not scratch easily and it has a strong resistance to abrasions and blows.

**FIRE AND TEMPERATURE CHANGE RESISTANCE**
Vitreous enamel is fireproof (class zero). Temperature changes between a minimum temperature of -50°C and a maximum temperature of 450°C do not alter the chemical and physical characteristics of objects made in vitreous enamel. Heat and direct flames do not damage vitreous enamel surfaces at all. If there is a fire no toxic or harmful gases are emitted.

**COLOUR STABILITY**
Vitreous enamel can be supplied in a vast range of colours, with different degrees of gloss, which remain stable over time, and do not fade or change colour.

**Covering walls with vitreous enamel panels**

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Covering walls with Corian® panels

Corian® is a non-toxic product, not porous and warm to the touch, it is an ideal material for the covering of health service environments because easy to clean and not affected by taking root of mould and bacteria. Corian® is therefore available in a wide range of colours, allowing to establish environments studied to improve comfort of patients and medical staff.

Covering walls with laminated HPL panels

Laminate panels are made of layers of cellulose fibre materials impregnated in thermosetting resins, pressed together by a high pressure process at extremely high temperatures. The material obtained this way is compact, uniform, non porous, has a high density, and is highly resistant to scratches and blows.

Thanks to a non porous surface, laminates are particularly hygienic materials. They are antistatic; therefore they do not attract dust because there is no electro-static charge.

Covering walls with stainless steel or varnished stainless steel panels

Tecnosmalto Group srl also uses covering panels made from a AISI-304 stainless steel sheet of a 10/10 thickness, with folded over perimeter edges, complete with holes for electrical equipment and apparatuses, which may be coated in antiglare polyurethane with a choice of colours.