

# Hospital Facilities

Installing resilient wall and floor coverings

- PRODUCTS FOR CERAMICS AND STONE MATERIALS
- PRODUCTS FOR RESILIENT AND TEXTILE MATERIALS
- PRODUCTS FOR WOODEN FLOORING
- PRODUCTS FOR CEMENTITIOUS AND RESIN FLOORING
- PRODUCTS FOR ACOUSTIC INSULATION
- PRODUCTS FOR BUILDING
- ADMIXTURES FOR CONCRETE
- PRODUCTS FOR STRUCTURAL STRENGTHENING
- PRODUCTS FOR THE REPAIR OF MASONRY
- PRODUCTS FOR THERMAL INSULATION
- WALL PROTECTIVE AND DECORATIVE COATINGS
- PRODUCTS FOR WATERPROOFING
- PRODUCTS FOR UNDERGROUND CONSTRUCTIONS
- ELASTIC SEALANTS AND ADHESIVES
- GRINDING AIDS FOR CEMENT

## HEADQUARTERS

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## Clinical environments

In those areas employed for medical use, where human life is particularly at risk, such as operating theatres, intensive care wards and diagnostic surgeries, high safety levels must be guaranteed for both patients and medical personnel alike. The problems which can arise from using organic chemical products in building work is due to the possibility of the emission of volatile organic compounds which pollute the environments in question, and which offer a high risk to the health and wellbeing of patients, medical and paramedic personnel. In keeping with the company's commitment to protecting the environment and safeguarding the quality of life, MAPEI has developed a series of polymer modified water

based products as an alternative to those with an organic solvent base. Such developments mean that the problem of domestic pollution deriving from the use of chemical products for floors in the building industry, may be tackled and solved. This innovative range has led to a considerable reduction in the emission level of volatile organic compounds, both immediately after applying the adhesive and over a longer period of time. **MAPEI's** commitment to the production of **adhesives with a low emission level of VOC** has been **recognised** with the "Environmental protection" award, from the **Italian national inter-university Consortium** - Chemistry in the environment (INCA).

## Mapei products: a guarantee of high quality

MAPEI produces more than 16,000 tonnes per day of finished products. A wide range of **different chemical products** leave their various production facilities: from adhesives in powder form to liquid and paste products and polymers. As far back as the 1970's, **MAPEI started introducing water dispersed products with a low solvent content on the market**, for which fire-prevention certification for inflammable substances was not required. Even though the solvent content in these products is very low, there is still a small amount and the problem is far worse in those countries which are particularly sensitive regarding the use of ever-safer chemical products. **MAPEI's commitment**

Both **GEV** and **Blauer Engel** are extremely severe classification systems, which assess the possible emission levels of volatile organic compounds of products used in the building industry on a short-term basis (3 days) and on a long-term basis (28 days) from when they are applied, using special environmental simulation chambers. Both awards consider products to be low emission on the basis of their **Total VOC** (the sum of all volatile organic compounds released within 3 or 28 days after been laid) and the absence of emissions of carcinogenic composites, such as benzene, acetaldehyde, formaldehyde, dioxins, etc.

**Blauer Engel** differs from other rating systems in that it



SAN CARLO di Nancy hospital – Rome – Italy



NIGUARDA hospital – Milan – Italy



SANT'ANNA hospital – Como – Italy



SAN LUCA hospital – Milan – Italy

### MAPEI SYSTEMS WITH VERY LOW EMISSION LEVELS OF VOLATILE ORGANIC COMPOUNDS (VOC) FOR LAYING RESILIENT FLOORS AND WALLS IN CLINICAL ENVIRONMENTS

MAPEI has a complete range of **EMICODE EC1** products available for laying all types of resilient materials on walls and floors, made up of:

- Adhesion promoter primers:  
**Primer G**, **Eco Prim T** and **Eco Prim Grip**
- Consolidating and waterproofing primers:  
**Eco Prim PU 1K**, **Eco Prim PU 1K Turbo** and **Primer MF EC Plus**
- Self-levelling smoothing compounds:  
**Ultraplan Eco**, **Ultraplan** and **Ultraplan Maxi**
- Thixotropic smoothing compounds:  
**Planipatch** and **Nivorapid**
- Adhesives for laying rubber and vinyl floors:  
**Ultrabond Eco V4SP**, **Ultrabond Eco VS90**, **Ultrabond Eco 380**, **Adesilex UP 71** and **Ultrabond Eco V4 Conductive**
- Adhesives for laying linoleum floors:  
**Ultrabond Eco 520** and **Ultrabond Eco 540**



was further enhanced by research programmes for developing products with a low emission of volatile organic substances (VOC) to improve wellbeing in the buildings where they are employed.

This programme led to the birth of the **MAPEI "ECO"** range of products.

Since October 2005, these products have been certified and labelled **EC1** (very low emission level of volatile organic compounds) and since June 2010, **EMICODE EC1 PLUS** (very low emission level of volatile organic compounds-PLUS), both issued by the German Institute GEV (Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), association for the control of emissions in flooring installation; Mapei is also a member.

Some products are also certified **Blauer Engel**; this award also guarantees the quality of the air for both floor layers and end users.

#### MAXIMUM EMISSION LIMITS FOR EC1 AND EC1 PLUS PRODUCTS

	Adhesives EMICODE EC1 PLUS	Adhesives EMICODE EC1
Emissions 3 days after laying	TVOC≤750 µg/m³	TVOC≤1000 µg/m³
Emissions 28 days after laying	TVOC≤60 µg/m³ TSVOC≤40 µg/m³	TVOC≤100 µg/m³ TSVOC≤50 µg/m³

is not divided into different classes, but is rather a single certification: the product either complies or does not comply with **Blauer Engel**.

MAPEI also has a number of labels which guarantee their eco-sustainability according to the different requirements of local markets (for example, M1 certification for the Finnish market).

**Eco-compatible** MAPEI products contribute to obtain the **LEED certification for the building**.

