

Eco-sustainable flooring installation

PRODUCTS FOR PARQUET



EC 1

Once old wooden flooring is no longer fit for purpose and needs to be removed or replaced, it is important that the products used to install the new flooring, **Primer, Self-levelling product, Adhesive** and **Varnish**, do not give off hazardous substances.

It is only by using products certified **EC1**, or very low emission of volatile organic compounds “**VOC**”, that you can be certain there will be no emission or unpleasant odour of volatile organic compounds.

EC1 CERTIFIES PRODUCTS WITH VERY LOW EMISSION OF VOLATILE ORGANIC COMPOUNDS



EMICODE® is a registered trademark used to denominate a system in which the products and systems used to install and protect wooden flooring may be classified as EMICODE®, very low emission of volatile organic compounds, **EC1**.

WHAT ARE EMISSIONS?

The term “**emission**” indicates the **release of gaseous, liquid or solid substances into the atmosphere from equipment or materials**. Vibrations, noise and radiation may also be considered to be emissions. In order to evaluate the quality of the air inside buildings the emission of organic compounds are particularly significant.

VOC, or “Volatile Organic Compounds”, **are those compounds which may pass from a liquid state to a gaseous state at room temperature**.

Since there are indications that many **VOC**, either on their own or when contained in mixtures, may have a negative effect on our health and wellbeing, scientists all over the world are studying methods to bring **VOC** emissions down to zero. In some countries in the European Union, such as Germany and France, there are government regulations that limit the content of **VOC** and **SVOC** in certain products.

SUBSTANCE SUSPECTED OF BEING CANCEROGENEOUS - DEFINED C

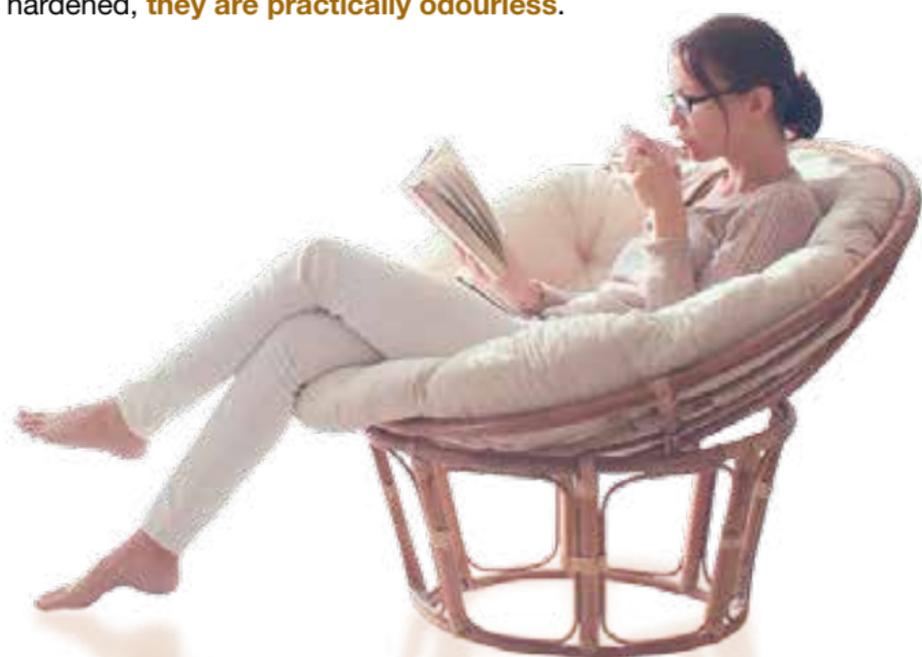
EC1 certification also takes into consideration the emission of cancerogeneous substances defined as C.

C substances are generally cancerogeneous and are divided into three categories:

- **Category 1**: substances known to be cancerogeneous for human beings (e.g. benzol);
- **Category 2**: substances that, until now, have only been proven to be cancerogeneous when tested on animals (e.g. acrylonitrile);
- **Category 3**: substances that are highly suspected of being cancerogeneous (e.g. formaldehyde). In this case the data available is insufficient to declare them as being cancerogeneous.

The method used to measure the emission of volatile organic compounds allows us to determine if, and in what concentration, **C substances** are present. With products certified **EC1**, there are well-defined limits and restrictions regarding the percentage of C substances and they represent a fundamental requirement for EMICODE® certification.

Products certified **EMICODE® EC1** give off an almost imperceptible odour when they are being processed and manufactured and, once hardened, **they are practically odourless.**





In spite of this, however, it is well known that the development of odours after extension or rebuilding work may be due to numerous factors.

Amongst these factors the most common are secondary emissions. These odorous substances may develop due to the level of moisture in an alkaline environment, insufficient drying, etc. It would be incorrect, therefore, to completely exclude this type of complaint when discussing products with **EC1** marking.

However, if there are complaints, the person who recommended or used a product with **EC1** marking, can rest assured that an analysis of the air in a building may be carried out without any type of indication.



THERE IS NO SUCH THING AS ZERO EMISSIONS

Apart from completely inorganic, mineral or metallic materials, it is extremely rare to find products that do not give off at least traces of some form of **VOC**. Organic materials, therefore, just like synthetic and natural substances, can never be completely free of emissions. Also, thanks to the increasingly sensitive analysis methods being employed, it is possible to detect an increasingly high number of **VOC** in increasingly reduced concentrations.

For this reason **chemical products for the building industry with “zero emissions” do not exist, and will not even exist** in the future.

GEV, therefore, considers the phrase “zero emissions” to be inappropriate and misleading.

In order to install new wooden flooring, or rebuild existing wooden flooring, floor installers may now work safely and with peace of mind, and end users can finally breathe easily and be more comfortable by using Mapei products certified as **EMICODE® “EC 1”** a guarantee of the highest level of safety achievable against undesired emissions and pollution of the air inside buildings caused by floors.



Eco Prim PU 1K



One-component solvent-free moisture-hardening polyurethane primer with very low emission of volatile organic compounds (VOC) for consolidating and waterproofing cementitious screeds.

WHY USE ECO PRIM PU 1K?

- completely solvent-free;
- suitable for consolidating heated screeds;
- supplied ready to use;
- GEV certified as a product with very low emission of volatile organic compounds (EMICODE EC1 R);
- compatible with one-component polyurethane and silylated polymer-based adhesives;
- compatible with two-component epoxy-polyurethane and polyurethane adhesives.

Technical data

Product details	
Consistency:	liquid
Colour:	brown
Density (g/cm ³):	1.05 ± 0.02
Maximum permitted residual moisture for waterproofing:	5% (measured with carbide hygrometer) (for screeds approx. 6 cm thick)
Brookfield viscosity (mPa·s):	65 ± 5 (rotor 1 - 10 rpm)
Dry solids content (%):	100
EMICODE:	EC1 R - very low emission
Application data (at +23°C and 50% R.H.)	
Application temperature:	+5°C to +35°C
Loss of tack:	3-4 hours
Set to foot traffic:	7-8 hours
Full hardening time:	24 hours
Waiting time between each application:	min. 3 hours, max. 24 hours
Waiting time before laying directly with adhesive:	min. 24 hours, max. 72 hours
Minimum waiting time before next phase over final coat (broadcast with sand):	36 hours



Ultrabond Eco S968 1K



**NEW
TECHNOLOGY**

One-component silylated polymer-based adhesive with very low emission of volatile organic compounds.

WHY USE ULTRABOND ECO S968 1K?

- completely solvent-free;
- “hard category” adhesive in compliance with EN 14293 standards;
- extended workability;
- easy to apply with excellent rib stability;
- certified by GEV as a product with very low emission of volatile organic compounds (EMICODE EC1 R Plus) and Blauer Engel;
- easy to remove from hands and pre-finished wood.

Technical data

Product details

Consistency:	creamy paste
Colour:	beige
Density (g/cm ³):	1.65
Dry solids content (%):	98
Brookfield viscosity (mPa s):	42,000 (No. 7 spindle - 50 rpm)
EMICODE:	EC1 R Plus - very low emission

Application data (at +23°C and 50% R.H.)

Application temperature:	+10°C to +35°C
Open time (formation of skin):	30 mins.
Adjustment time:	90 mins.
Set to foot traffic:	12 hours
Sanding:	3 days



Ultracoat Easy Plus



One-component water-based 100% polyurethane varnish with very low emission of volatile organic compounds and high resistance to wear and abrasion for wooden flooring. Suitable for floors subjected to medium to high pedestrian use.

WHY USE ULTRACOAT EASY PLUS?

- one-component 100% polyurethane water-based;
- supplied ready to use;
- easy to apply;
- excellent resistance to wear;
- GEV certified as a product with very low emission of volatile organic compounds (EMICODE EC1 Plus).

Technical data

Product details

Consistency:	liquid
Colour:	milky white
Density (g/cm ³):	1.045 ± 0.005 (10 gloss) 1.040 ± 0.005 (30 gloss) 1.038 ± 1 sec (60 gloss)
Viscosity (No. 3 Ford cup):	40 ± 1 sec (10 gloss) 35 ± 1 sec (30 gloss) 32 ± 1 sec (60 gloss)
EMICODE	EC1 Plus - very low emission
Application data (at +23°C and 50% R.H.)	
Dust dry:	10% with clean water or Ultracoat EL
Touch dry:	milky white
Maximum permitted dilution: (Dir. 2004/42/EEC):	10% with clean water or Ultracoat EL
Buffing:	milky white
Varnishing (without sanding):	after 2 hours and within 5 hours
Ready for service:	36-48 hours



Ultracoat Aqua Plus



Solvent and NMP-free odourless water-based binder mixed with wood flour filler for grouting wooden flooring. Suitable for Ultracoat and Ultracoat Oil water-based varnishing cycles.

WHY USE ULTRACOAT AQUA PLUS?

- completely solvent-free;
- odourless;
- GEV certified as a product with very low emission of volatile organic compounds (EMICODE EC1 Plus);
- easy to apply;
- quick drying, less waiting time before buffing.

Technical data

Product details

Consistency:	liquid gel
Colour:	off-white
Density (g/cm ³):	2000-3000
Brookfield viscosity (mPa·s):	98
EMICODE:	EC1 Plus - very low emission

Application data (at +23°C and 50% R.H.)

Application temperature:	+10°C to +35°C
Buffing:	after approx. 1 hour
Varnishing:	after 2 hours with water-based varnish cycles
Consumption:	100-120 g/m² per coat





● **Technical documentation**

From the technical area menu you can view the technical documentation divided per product lines and type of document.

HEAD OFFICE
MAPEI S.p.A.
Via Cafiero, 22 - 20158 Milan
Tel. +39-02-37673.1
Fax +39-02-37673.214
Internet: www.mapei.com
E-mail: mapei@mapei.it

