

Mapelectric CP1

Solvent-free, conductive additive added to primers, smoothing compounds, adhesives and grouting mortars, both cementitious-based and in water dispersion, for laying conductive and static-dissipating textile, resilient and ceramic floors



WHERE TO USE

Mapelectric CP1 is a fluid paste which is mixed with the following:

- primer in water dispersion;
- cementitious adhesives and grout for laying conductive ceramic floors;
- adhesives in dispersion for laying conductive fabric, PVC, rubber and vinyl floors.

Some application examples

Laying conductive and static-dissipating floors in EPA areas (areas protected against electrostatic charges) according to CEI EN 61340-5-1 and ANSI 20.20 Standards, such as:

- in the electronics and similar industries: production of conductors, semi-conductors, circuit boards, computers and relative assembly lines, telephone exchanges, sorting offices, radar stations, data-elaboration centres, etc.;
- operating theatres, intensive care and tomography units, NMR wards, analysis laboratories, etc.;
- chemical and pharmaceuticals industries: manufacture of chemical products in the presence of inflammable or explosive powders and/or solvents, production of ammunition and explosives, etc.;

- printing houses where solvents are employed, accumulator charging units, sterile rooms, false floors, etc.

on

all types of absorbent substrates normally used in the building industry, and which are stable in the presence of humidity.

TECHNICAL CHARACTERISTICS

Mapelectric CP1 is a ready-to-use, neutral-coloured fluid paste made using a highly conductive charge of materials finely dispersed in water, which is added to MAPEI products to make them conductive. The paste is not inflammable and does not contain substances which are hazardous during its handling and application. No special precautions need to be taken for storage purposes. The product has a very low viscosity, which makes blending easy when mixed with cementitious and dispersion products. The characteristics of the products which are thus rendered conductive (adhesive, grout, primer, etc.) are only slightly modified: for example, the hydration time for cementitious products or the drying time of dispersion products may be slightly longer.

RECOMMENDATIONS

- Only use **Mapelectric CP1** for laying conductive and static-dissipating floors.
- Only mix **Mapelectric CP1** with the products indicated in this Technical Data Sheet.

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	creamy paste
Colour:	black
Density (g/cm³):	1.05
pH:	8
Dry solids content (%):	21
Brookfield viscosity (mPa•s):	200 (# 2 - 50 rpm)
Storage:	6 months
Hazard classification according to EC 1999/45:	none. Before using refer to the “Safety instructions for preparation and application” paragraph and the information on the packaging and Safety Data Sheet
Customs class:	3206 49 90
APPLICATION DATA	
According to the product to which Mapelectric CP1 has been added	
FINAL PERFORMANCE	
Performance figures do not vary significantly compared with those of the product to which Mapelectric CP1 has been added	

MIXING RATIO				
Mapei Product	Packaging (kg)	Mapelectric CP1 (kg)	Amount of water required for blending (kg)	Electrical resistance according to EN13415 (M Ω)
Keraflex	25	2.5	4.5	0.007
Keraflex S1	25	2.5	4.5	0.007
Keracolor GG	25	1.25	4.5	0.063
Primer G	10	2.5	–	0.005
Aquacol T	25	5	–	0.060
	12	2.5	–	0.060
	5	1.25	–	0.060
Ultrabond Eco V4SP	16	5	–	0.005
	8	2.5	–	0.005
Ultrabond Eco 185	16	3.75	–	0.05
Ultrabond Eco 350	16	3.75	–	0.07
Ultrabond Eco Fix	10	3.75	–	0.005

N.B.: Mapelectric CP1 is available in 2.5 kg packages

- When laying non-absorbent resilient and fabric conductive floors on non-absorbent surfaces, use **Adesilex G19 Conductive** or **Adesilex VZ Conductive**.
- Do not use on substrates which are subject to rising damp.
- Always follow the mixing ratios indicated.
- Make sure the equipotential node system is firmly connected to suitable metallic conductors.

APPLICATION PROCEDURE

Preparation of the substrate

Carefully follow the instructions contained in the relative Technical Data Sheet for each product to which **Mapelectric CP1** is added.

Preparation of the mix

When preparing primers and adhesives in dispersion for resilient and fabric floor coverings, add **Mapelectric CP1** according to the quantity indicated and mix using a low-speed mixer until a uniform colour is obtained.

When preparing cementitious grout and adhesive for ceramic materials, add the **Mapelectric CP1** to the water used for blending, and then add the powder. Mix until a smooth, lump-free blend is obtained.

When spreading the adhesive, grout or primer, and when laying and putting into service ceramic, rubber, PVC and fabric floor coverings, follow the indications in the relative Technical Data Sheet for the product to which **Mapelectric CP1** has been added.

Specific instructions given by the manufacturer of the floor covering and regulations and norms regarding conductive floors according to the country where the floor is laid must be strictly adhered to. Special care must be taken with the equipotential ground contact, which must be carried out according to the methods described in the various standards, such as CEI, DIN, ANSO, NFPA, ANSI, etc.

The conductive network made using strips of copper (thickness from 0.08 to 0.10 mm,

width from 10 to 25 mm) must be fastened in place to the substrate using the same adhesive as that to which **Mapelectric CP1** has been added.

Cleaning

Follow the indications on the Technical Data Sheet of the product to which **Mapelectric CP1** has been added.

PACKAGING

2.5 kg cans.

STORAGE

6 months. Protect **Mapelectric CP1** from freezing weather conditions. Under normal conditions, **Mapelectric CP1** remains stable for at least 6 months if stored in its sealed, original container.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapelectric CP1 is not considered a dangerous substance according to current norms and regulations regarding the classification of preparations. However, the usual precautions taken when handling chemical products are recommended. The Safety Data Sheet is available upon request for professional users.

PRODUCT FOR PROFESSIONAL USE.

WARNING

While the indications and guidelines contained in this data sheet correspond to the company's knowledge and wide experience, they must be considered, under all circumstances, merely as an indication and subject to confirmation only after long-term, practical applications. Therefore, anybody who undertakes to use this product, must ensure beforehand that it is suitable for the intended application and, in all cases, the user is to be held responsible for any consequences deriving from its use.

**All relevant references
for the product are available
upon request and from
www.mapei.com**

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