



**MAPEI**

# Colorite Beton

**Semi-transparent  
acrylic paint**



**ANTI CARBONATION**

**SMOOTH FINISH**

## WHERE TO USE

For painting concrete structures, reinforced concrete and general cementitious surfaces with a coat of semi-transparent paint, leaving the “form-work” or “natural” finish of the piece visible and homogenising the colour. The special formulation of the product makes it particularly suitable for protecting surfaces against damage caused by CO<sub>2</sub>, SO<sub>2</sub> and sunlight. The long-lasting, durable protection is also guaranteed by the product’s good repellence to water and its moderate permeability to vapour.

## Some application examples

- For painting concrete and reinforced concrete surfaces where the colour of the substrate requires homogenising while leaving the “form-work” or “natural” finish of the cementitious structure visible.
- Paint for protecting general cementitious surfaces exposed to aggressive pollution agents in industrial environments, such as exhaust gases and acid rain, or to prevent damage due to carbonation.

## TECHNICAL CHARACTERISTICS

**Colorite Beton** is a semi-transparent paint for external walls, made up of non-saponifiable, pure acrylic resin in water dispersion.

**Colorite Beton** protects cementitious substrates against damage caused by CO<sub>2</sub> (carbonation) and SO<sub>2</sub>.

**Colorite Beton** is resistant to all climatic conditions and the aggressive attack of smog, salt and sunlight, and provides a long-lasting protective coat for the substrate.

**Colorite Beton** protects the substrate and leaves an attractive finish which evens out the colour without hiding the surface structure.

**Colorite Beton** is available in 4 shades of grey in the



standard range of colours. Further colours may also be created according to individual samples by using the **ColorMap®** automatic colouring system.

**Colorite Beton** meets the requirements of EN 1504-9 (*“Products and systems for protecting and repairing concrete structures: definitions, requirements, quality control and conformity assessment. General principles for the use and application of systems”*), and the requirements of EN 1504-2 (*“Surface protection system for concrete”*) for class: surface protection products – coating (C) – ingress protection (1.3) (PI) (ZA.1d) + moisture control (2.2) (MC) and increasing resistivity (8.2) (IR) (ZA.1e).

#### RECOMMENDATIONS

- Do not apply **Colorite Beton** on damp substrates, or on substrates which are not fully cured.
- Do not apply **Colorite Beton** if the temperature is lower than +5°C or higher than +35°C (the surface must be dry and must not be in direct sunlight).
- Do not apply **Colorite Beton** if the level of humidity is higher than 85%.
- Do not apply **Colorite Beton** if it is about to rain or in windy weather.
- Please refer to the “Safety instructions for preparation and application” section.

#### APPLICATION PROCEDURE

##### Preparation of the substrate

New surfaces or surfaces which have been patched-up with repair mortar must be well cured, perfectly clean, sound and dry. Remove all traces of oil and grease and parts which are not well-attached from the surface. Seal any cracks which are present in the substrate and repair the parts which are in poor condition. Seal porosity and level off uneven areas of the substrate with a mortar and smoothing compounds from the MAPEI building products line. Apply a coat of **Malech** (ready-to-use) and allow to dry 12-24 hours before applying **Colorite Beton**.

##### Preparation of the product

Dilute **Colorite Beton** with water. To help the product penetrate well into the substrate, especially if it is very compact and not very absorbent, we recommend diluting the first coat with 20%-25% of water and, after approximately 24 hours, the application of a second coat diluted with 10%-15% of water. Make sure that the product is completely homogenised when diluting. If possible, use a low-speed drill to help with mixing. If only a part of the product is to be prepared, mix the **Colorite Beton** as is in its original container before pouring off the quantity required.

##### Application of the product

**Colorite Beton** is applied using traditional methods with a brush, a roller, by air-spraying or with an airless spray-gun system on top of a coat of dry **Malech** primer. The protection cycle comprises the application of at least two coats of

**Colorite Beton** at a distance of 24 hours between each coat under normal temperature and humidity conditions, and in all cases when the underlying layer is completely dry. Examples of the final effect and finishes obtained using **Colorite Beton** are illustrated in “MAPEI colour in the project” catalogue.

#### Cleaning

Brushes, rollers and other tools used for applying the product may be cleaned with water before the **Colorite Beton** has dried off.

#### CONSUMPTION

Consumption is heavily influenced by the absorption and roughness of the substrate, and according to the application technique used. Under normal conditions, consumption is generally 0.25-0.3 kg/m<sup>2</sup> (for two coats of the product).

#### PACKAGING

**Colorite Beton** is supplied in 20 kg plastic drums.

#### STORAGE

24 months if stored in a dry place away from sources of heat and at a temperature of between +5°C and +30°C. Protect from frost.

#### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Colorite Beton** is not considered dangerous according to current norms and regulations regarding the classification of mixtures. It is recommended to wear protective goggles and gloves. The usual precautions taken when handling chemical products are recommended.

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

#### WARNING

*Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.*

**Please refer to the current version of the Technical Data Sheet, available from our website [www.mapei.com](http://www.mapei.com)**



**All relevant references for the product are available upon request and from [www.mapei.com](http://www.mapei.com)**

## TECHNICAL DATA (typical values)

Conformity with:

- product certified according to EN 1504-2 (Surface protection systems for concrete), 2+ and 3 compliance certification system
- EN 1504-2 classes: surface protection products
  - coating - ingress protection (1.3) (ZA. 1d) + moisture control (2.2) and increase in resistivity (8.2) (ZA. 1e) (C, PI-MC-IR principles)

### PRODUCT IDENTITY

**Appearance:**

thick liquid

**Colour:**

colours from the MAPEI colour chart range or in various colours obtained using the **ColorMap®** automatic colouring system

**Density (EN ISO 2811-1) (g/cm<sup>3</sup>):**

approx. 1.27

**Dry solids content (EN ISO 3251) (%):**

approx. 59

**Brookfield viscosity (mPa·s):**

approx. 18,250  
(5 shaft - 10 rpm)

### APPLICATION DATA

**Dilution ratio:**

20-25% of water (first coat)  
10-15% of water (second coat)

**Waiting time between two coats:**

minimum of 24 hours in normal humidity and temperature conditions, and always with a completely dry substrate

**Application temperature:**

from +5°C to +35°C

**Consumption (kg/m<sup>2</sup>):**

0.25-0.3 (two coats)

### FINAL PERFORMANCE

**VOC content of ready-mixed product (white) (European Directive 2004/42/EC) (g/l):**

≤ 15

**VOC content of ready-mixed product (coloured) (European Directive 2004/42/EC) (g/l):**

≤ 18

**Colour variation after 1000 hours exposure to a Weather-Ometer (ASTM G 155 cycle 1), F.M. 4001, F.M. 4002, F.M. 4003, F.M. 4004 colour:**

ΔE < 1



## PERFORMANCE CHARACTERISTICS FOR CE CERTIFICATION ACCORDING TO EN 1504-2, 2+ AND 3 COMPLIANCE CERTIFICATION SYSTEM - CLASSES ZA.1d + ZA.1e (C, PI - MC - IR principles)

STANDARD	TEST	RESULTS AND CONFORMITY TO REQUIREMENTS	
EN ISO 2409	oblique cut	result/class:	GT1, in conformity ( $\leq$ GT2)
EN 1062-6	permeability to CO <sub>2</sub>	$\mu$ :	4,124,820
		$s_D$ (m):	412
		dry thickness according to $s_D$ (m):	0.00010
		result/class:	in conformity ( $s_D > 50$ m)
EN ISO 7783	permeability to water vapour	$\mu$ :	3609
		$s_D$ (m):	0.4
		dry thickness according to $s_D$ (m):	0.00010
		result/class:	I ( $s_D < 5$ m)
EN 1062-3	capillary absorption and permeability to water	$w$ [kg/(m <sup>2</sup> h <sup>0.5</sup> )]:	0.02
		result/class:	in conformity ( $w < 0.1$ )
EN 1062-11 4.1	thermal compatibility: ageing: 7 days at +70°C	result/class:	in conformity (adherence $\geq$ 0.8 N/mm <sup>2</sup> )
EN 13687-1	thermal compatibility: freeze-thaw cycles with immersion in de-icing salts	result/class:	in conformity (adherence $\geq$ 0.8 N/mm <sup>2</sup> )
EN 13687-2	thermal compatibility: thunder-shower	result/class:	in conformity (adherence $\geq$ 0.8 N/mm <sup>2</sup> )
EN 13687-3	thermal compatibility: thermal cycles without immersion in de-icing salts	result/class:	in conformity (adherence $\geq$ 0.8 N/mm <sup>2</sup> )
static EN 1062-7	crack resistance	crack-bridging ability ( $\mu$ m):	1117
		result/class:	A3 (> 0.5 mm)
dynamic EN 1062-7	crack resistance	result/class:	B1
EN 1542	direct traction adherence test	result/class:	in conformity (adherence $\geq$ 0.8 N/mm <sup>2</sup> )
EN 13501-1	reaction to fire	euroclass:	B s1 d0
EN 13036-4	resistance to scuff marks	result/class:	II (dry internal surface) (> 40 dry units)
EN 1062-11:2002 4.2	artificial exposure to atmospheric agents	result/class:	in conformity
EN 1081	anti-static behaviour	result/class:	I (electrical resistance > 10 <sup>4</sup> and < 10 <sup>6</sup> Ω)
	hazardous substances	result/class:	in conformity

## FURTHER PERFORMANCE CHARACTERISTICS ACCORDING TO EN 1504-2 REGARDING REQUIREMENTS FOR CLASSES ZA.1d + ZA.1e

STANDARD	TEST	RESULTS AND CONFORMITY TO REQUIREMENTS	
EN ISO 5470-1	abrasion resistance	result/class:	in conformity ( $\Delta$ weight < 3000 mg)
UNI 7928	diffusion of chloride ions	penetration (mm):	0.0
EN ISO 2812-1 - NH <sub>4</sub> <sup>+</sup>	chemical resistance	result/class:	in conformity