

ELASTOCOLOR WATERPROOF

Anti-cracking and anti-carbonation elastomeric paint for exterior and interior use, suitable for direct contact with water



WHERE TO USE

Painting of concrete structures subjected to deformation and cracking, even in situations of direct contact with water.

Elastocolor Waterproof is an elastic finish able to protect the substrate from CO₂ and atmospheric agents. It protects from rain vertical and horizontal concrete surfaces that are not subject to foot traffic (such as flat roofs and gutters) and special architectural elements (such as domes, particularly exposed projections, window sills and/or balcony and terrace parapets, etc.) that have been previously waterproofed with **Mapelast** products.

Elastocolor Waterproof enhances chemical resistance to acid rain and, through suitable colouring, reduces absorption of solar radiation and the consequent heating of surfaces.

Elastocolor Waterproof is able to protect and decorate, even if the plaster shows micro-cracks or traces of previous paint.

In waterproofing cycles of water tanks and swimming pools performed with **Triblock Finish** and **Mapecoat I 600 W**, it is possible to use **Elastocolor Waterproof** as a compatible elastic finish suitable for permanent contact with water. Important note: always contact Mapei Technical Services Department for this specific use and proceed only after obtaining prior technical approval.

ADVANTAGES

- Waterproof
- Anti-carbonation
- Elastic
- Easy to clean

TECHNICAL CHARACTERISTICS

Elastocolor Waterproof is a protective paint, composed of acrylic elastomeric resins in water dispersion. It is perfectly compatible with products from the **Mapelast** line as a coloured finishing coat.

Once completely dry, **Elastocolor Waterproof** forms an elastic coat that remains impermeable to water and aggressive atmospheric agents (CO₂ - SO₂) while remaining permeable to vapour.

Elastocolor Waterproof can be used as the final finishing coat in situations requiring high-water-resistant paint after waterproofing with cement-based products.

Elastocolor Waterproof withstands all weather conditions, it is resistant to the aggression of smog, salt spray and sunlight, and gives the substrate long-lasting protection.

Elastocolor Waterproof has excellent resistance to ageing, frost and de-icing salts, while preventing the settling of dirt.

Apart from protecting substrates, **Elastocolor Waterproof**, forms an attractive finish and is available in a wide range of colours, obtained using ColorMap® tinting system.

Elastocolor Waterproof complies with the principles defined in EN 1504-9 ("Products and systems for the protection and repair of concrete structures: definitions, requirements, quality control and evaluation of conformity. General principles for the use of products and systems"), and the requirements of EN 1504-2 ("Surface protection systems for concrete"): surface protection against ingress, moisture control and increasing resistivity (principles: PI - MC - IR).

RECOMMENDATIONS

- **Elastocolor Waterproof** is not a membrane and therefore does not replace cement-based waterproofing products, traditional bituminous membranes or elastomeric cement membranes in general, used for waterproofing horizontal and vertical surfaces.
- Do not apply **Elastocolor Waterproof** on surfaces open to foot traffic.
- Do not use **Elastocolor Waterproof** for painting de-humidifying render.
- Do not apply **Elastocolor Waterproof** on damp substrates or on substrates that are not fully cured.
- Do not apply **Elastocolor Waterproof** if the temperature is lower than +5°C or higher than +35°C.
- Do not apply **Elastocolor Waterproof** if the level of humidity is higher than 85%.
- Do not apply **Elastocolor Waterproof** in case of imminent rain, on particularly windy days, or in direct sunlight.
- Do not apply **Elastocolor Waterproof** on chalking or dusty substrates.
- Do not apply **Elastocolor Waterproof** on bituminous membranes, PVC or other non-cementitious synthetic material used as a waterproofing layer.
- Do not apply **Elastocolor Waterproof** directly on substrates where water in counter-pressure is present.
- Do not use **Elastocolor Waterproof** for coating tanks used to contain drinking water.

APPLICATION PROCEDURE

As a protector of concrete structures

Preparation of the substrate

Surfaces to be treated with **Elastocolor Waterproof** must be cured, perfectly clean, sound and dry. Remove all traces of oil and grease and parts which are not well bonded to the surface. Seal any cracks if present and repair damaged areas before application. Fill pores in concrete and level off irregularities on the substrate using mortars and skim coats from MAPEI Building Line. Carry out the suitable treatment on the dry and cured substrate depending on specific needs: under normal conditions, use the transparent primer **Malech**, in case of tints with a low hiding power, use **Quarzolite Base Coat** pigmented primer.

Use **Elastocolor Primer** in case of plaster whose curing is uncertain, very chalking or poorly absorbent.

Preparation of the product

Dilute **Elastocolor Waterproof** with 5-10% of water and mix using a drill at low speed until it is completely blended. For the preparation of partial quantities, it is recommended to mix **Elastocolor Waterproof** in its original bucket, before removing the required amount.

Application of the product

Elastocolor Waterproof can be applied using traditional techniques by brush, roller or spray.

The protection cycle requires at least two coats of **Elastocolor Waterproof** at 24 hours between coats, in normal conditions of humidity and temperature, and in any case when the previous layer is completely dry.

As a finish in the specific cycle for water tanks and swimming pools (after validation by Mapei Technical Services Department)

Level the floor and perimeter walls, creating appropriate rounded edges ('chamfers') at 90° corners or 'sharp' edges. Once the materials have been properly cured, proceed with the application of **Mapecoat I 600 W**, diluted 1 to 1 with water, and at a distance of 4–6 hours make the waterproofing skim coat with **Triblock Finish**. At 24 hours after the application of **Triblock Finish**, apply again **Mapecoat I 600 W**, diluted 1 to 1 with water, and at a distance of 4–6 hours make the first coat of **Elastocolor Waterproof**. The following day, finish the procedure by applying the second coat of **Elastocolor Waterproof**. The application of a third coat of **Elastocolor Waterproof**

(after an additional 24 hours) is only necessary if the tint has a low hiding power or if a certain thickness of the coat is required.

During all stages of surface preparation and painting with **Elastocolor Waterproof**, tanks must be fully protected (but not sealed) with suitable cover sheets that prevent contact with rainwater while allowing sufficient air circulation for **Elastocolor Waterproof** to dry completely.

Protect newly painted surfaces from rain for at least 5 days, to prevent water contact during the initial stages after **Elastocolor Waterproof** application, which could compromise adhesion to the substrate.

Wait at least 20 days after the end of the painting cycle to fill the tanks, after checking that the surface is completely dry according to temperature and humidity conditions.

Specific warnings:

Elastocolor Waterproof has good resistance to contact with the most commonly used chemicals for swimming pool water disinfection (chlorine-based and quaternary ammonium salts). In some cases, however, this constant contact can cause bleaching of the film of **Elastocolor Waterproof**, so if the color you choose has a medium-dark tone, more frequent maintenance will be necessary.

Elastocolor Waterproof is a finishing product with minimal thickness (0.2-0.3 mm), and since it does not withstand strong mechanical abrasion, it could be scratched by the equipment usually used for cleaning surfaces (robots, brushes in general, etc.).

It is necessary to periodically check the wear condition of **Elastocolor Waterproof** to assess whether seasonal or annual maintenance, is required.

The maintenance cycle may involve renewal of paint on the entire surface or only in some specific areas. The following steps should be taken:

- Roughen the surface by sandpapering the substrate in order to remove roughness and promote the adhesion of subsequent layers;
- Wash the surfaces thoroughly in order to remove dust and residues from the previous sanding operation. (The use of pressure washers or other washing tools such as lances or other pressure devices should be carefully evaluated as they could cause detachment of **Elastocolor Waterproof** even in areas where it is well adhered.)
- Apply one coat of **Mapecoat I 600 W**, diluted 1 to 1 with water;
- After 4–6 hours, apply one or more coats of **Elastocolor Waterproof**.

CLEANING

Brushes, rollers and all equipment used for the application can be cleaned with water before **Elastocolor Waterproof** dries.

CONSUMPTION

- 0.3-0.5 kg/m² (referred to two coats of product) **for structures not immersed in water**;
- 0.6-0.8 kg/m² (referred to two/three coats of product) **for structures immersed in water**.

Important note: for water tanks or swimming pools, regardless of the number of coats applied, it is necessary to comply with the indicated consumption (0.6-0.8 kg/m²) of **Elastocolor Waterproof** in order to ensure adequate product thickness to guarantee long-lasting protection.

PACKAGING

Elastocolor Waterproof is supplied in 20 kg recycled plastic buckets.

STORAGE

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

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the SDS available from our website www.mapei.com.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

Product certified according to standard EN 1504-2 ("surface protection systems for concrete") Principles: PI - MC - IR (coating for protection against the risk of penetration, moisture control and increase in resistivity). VVCP systems: 2+ and 3 (for fire reaction).

PRODUCT IDENTITY

Consistency:	thick liquid
Colour:	white, Mapei colour chart or colours obtainable with ColorMap® tinting system
Density (EN ISO 2811-1) (g/cm³):	approx. 1.18
Dry solids content (EN ISO 3251) (%):	approx. 59

APPLICATION DATA

Dilution rate:	5-10% of water
Waiting time between coats:	minimum 24 hours under normal humidity and temperature conditions, and in all cases, only when the previous layer is completely dry
Application temperature:	from +5°C to +35°C
Consumption (kg/m²):	0.3-0.5 (two coats) for structures not immersed in water 0.6-0.8 (two/three coats) for structures immersed in water

FINAL PERFORMANCE

VOC content of ready-mixed product (white) (European Directive 2004/42/EC) (g/l):	≤ 65
VOC content of ready-mixed product (coloured) (European Directive 2004/42/EC) (g/l):	≤ 90
Change in colour after 1,000 hours of exposure to a Weather-Ometer (according to ASTM G 155 cycle 1), white:	ΔE < 1

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

STANDARD	TEST	RESULTS AND COMPLIANCE WITH REQUIREMENTS	
EN ISO 2409	oblique cut	result/class:	GT1, compliant (≤ GT2)
EN 1062-6	permeability to CO ₂	μ:	852,042
		s _D (m):	213
		dry thickness according to s _D (m):	0.00025
		result/class:	complies (s _D > 50 m)

EN ISO 7783-1.2	permeability to water vapour	μ : s_D (m): dry thickness according to s_D (m): result/class:	3432 0.9 0.00025 I ($s_D < 5$ m)
EN 1062-3	assorbimento capillare e permeabilità all'acqua	w [kg/(m ² h ^{0.5})]: result/class:	0.01 compliant (w < 0.1)
EN 1062-11 4.1	thermal compatibility: ageing 7 days at +70°C	result/class:	compliant (adherence $\geq$ 0.8 N/mm ²)
EN 13687-1	thermal compatibility: freeze-thaw cycling with de-icing salt immersion	result/class:	compliant (adherence $\geq$ 0.8 N/mm ²)
EN 13687-2	thermal compatibility: thunder-shower cycling	result/class:	compliant (adherence $\geq$ 0.8 N/mm ²)
EN 13687-3	thermal compatibility: thermal cycles without immersion in de-icing salts	result/class:	compliant (adherence $\geq$ 0.8 N/mm ²)
EN 1062-7 (static)	resistance to cracking	crack bridging ability (μ m): result/class:	1467 A4 (> 1.25 mm)
EN 1062-7 (dynamic)	resistance to cracking	result/class:	B2
EN 1542 (*)	bond strength by pull-off	result/class:	compliant (adherence $\geq$ 0.8 N/mm ²)
EN 13501-1	reaction to fire	euroclass	B s1 d0
EN 13036-4	Skid resistance	result/class:	II (dry interior surfaces) (> 40 dry units)
EN 1062-11:2002 4.2	exposure to artificial atmospheric agents	result/class:	compliant
EN 1081 (*)	antistatic behaviour	result/class:	I (electrical resistance > 10 ⁶ and < 10 ⁸ Ω)
	hazardous substances	result/class:	compliant

ADDITIONAL PERFORMANCE CHARACTERISTICS ACCORDING TO EN 1504-2 TO THE REQUIREMENTS FOR CLASS ZA.1d + ZA.1

STANDARD	TEST	RESULTS AND COMPLIANCE WITH REQUIREMENTS	
EN ISO 5470-1	Abrasion resistance	result/class:	compliant (D weight < 3000 mg)
EN ISO 6272-1	Impact resistance	result/class:	class I ($\geq$ 4 Nm)
EN 7928	Ion chloride diffusion	penetration (mm):	0.0
EN ISO 2812-1 - NH ₄ ⁺	Chemical resistance	result/class:	compliant

EN 13529 - H ₂ SO ₄ 20%	Resistance to severe chemical attack	result/class:	II (shore D < 50% at 28 days without pressure)
EN 13529 - NaOH 20%	Resistance to severe chemical attack	result/class:	II (shore D < 50% at 28 days without pressure)
EN 13529 - NaCl 20%	Resistance to severe chemical attack	result/class:	II (shore D < 50% at 28 days without pressure)
EN 13529 - tensioatt.org	Resistance to severe chemical attack	result/class:	II (shore D < 50% at 28 days without pressure)

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. The values declared in the TECHNICAL DATA table (typical values) were obtained in compliance with test methods and curing cycles defined in the technical standards referenced therein. Therefore, please note that the use of test procedures or methods other than those indicated in the table could lead to different values and that, in such cases, any liability of our company is excluded.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

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The most up-to-date TDS can be downloaded from our website www.mapei.com.

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