

# SILANCOLOR TONACHINO PLUS

Siloxane plaster for the hygiene of walls, in internal  
and external applications

WATER-REPELLENT AND TRANSPIRANT  
MOULD AND ALGAE RESISTANT



## WHERE TO USE

Silicon resin-based coating product in paste form with good filling capacity for a rustic finish on internal and external surfaces, available in various grain sizes, recommended for finishing off internal and external walls where particular environmental conditions favour the growth of algae, mould and fungi, and to give an attractive finish, excellent water-repellence and good transpiration to the substrate.

### Some application examples

- Decorating façades deteriorated by algae and mould, including façades with old paintwork (check suitability beforehand).
- Decorating north-facing façades.
- Decorating all types of cementitious and lime-based render.
- Decorating **Mape-Antique** and **PoroMap**-based renders and de-humidifying renders in general.
- Finishing coatings for cladding systems such as **Mapetherm**.

## TECHNICAL CHARACTERISTICS

**Silancolor Tonachino Plus** has been formulated specifically for the protection against algae, mould and fungi. It may be used for decorating buildings located in areas where the damp climate favours the growth of such micro-organisms. A typical example is the painting of north-facing façades which are particularly sensitive to the growth of algae due to the walls of the building being colder and damper. Apart from the actions described above, **Silancolor Tonachino Plus** is a fibre-reinforced silicon resin-based coating material available in various grain sizes which combines the advantages of mineral coating materials (high transpiration) with those of synthetic coating materials (even colour, good bond to old paintwork in good condition and availability in a wide range of colors). Thanks to its special formulation, substrates have good permeability to water vapour and are highly water-repellent. Unlike conventional synthetic coating products, it forms a porous layer rather than a film which is impermeable to water vapour, while the special silicon resins contained in the product form an excellent barrier against the penetration of water, so that render always remains dry.

Thanks to the double synergic action carried out by the components contained in **Silancolor Tonachino Plus**, therefore, it eliminates the causes which create the conditions favourable to the growth of microorganisms and offers excellent protection for the façade. **Silancolor Tonachino Plus** contains a specific agent for mould and algae growth control.

When **Silancolor Tonachino Plus** is used in combination with **Silancolor Primer Plus** or **Silancolor Base Coat Plus** and, where necessary, with **Silancolor Cleaner Plus**, it forms an efficient, long-lasting protection system.

**Silancolor Tonachino Plus** contains synthetic fibres for good crack resistance.

**Silancolor Tonachino Plus** bonds perfectly to all types of conventional and dehumidifying renders and to old, well-bonded paintwork. With its water-repelling capacity, it protects substrates against chemical attack, attracts very little dirt and is highly resistant to UV rays and ageing, characteristics which remain stable for a very long time.

Apart from protecting surfaces, **Silancolor Tonachino Plus** gives the substrate an attractive rustic finish. It is available in the colors from the MAPEI color charts and in a wide range of colours obtained using the **ColorMap®** automatic colouring system.

**Silancolor Tonachino Plus** complies with the requirements of EN 15824 ("*Specifications for external renders and internal plasters based on organic binders*") for internal and external use.

## RECOMMENDATIONS

- Do not apply **Silancolor Tonachino Plus** directly on surfaces where algae, mould or fungi are present. Such micro-organisms must be removed beforehand with **Silancolor Cleaner Plus** followed by treatment with **Silancolor Primer Plus** or **Silancolor Base Coat Plus**.
- Do not apply **Silancolor Tonachino Plus** on damp substrates or on substrates which are not well cured.
- Do not apply **Silancolor Tonachino Plus** if the temperature is lower than +5°C or higher than +35°C.
- Do not apply **Silancolor Tonachino Plus** if the level of humidity is higher than 85%.
- Do not apply **Silancolor Tonachino Plus** if it is about to rain, in windy weather or if there is direct sunlight.
- Refer to the "Safety instructions for preparation and application" section for application guidelines.

## APPLICATION PROCEDURE

### Preparation of the substrate

New surfaces to be treated or any renovation with repair mortars must be cured, perfectly clean, well bonded and dry.

Completely remove any traces of oils or grease from the surfaces and any loose particles.

Remove all traces of algae, mould and fungi, if present. They must be removed while the surface is still damp after a thorough cleaning with **Silancolor Cleaner Plus**.

Apply **Silancolor Cleaner Plus** over the entire surface of the substrate with a low-pressure manual sprayer or by brush, making sure it penetrates deep down into the substrate. After applying the product, leave it to react for a few minutes and then remove the algae, mould and fungi with a stiff brush.

Apply **Silancolor Cleaner Plus** several times to help it penetrate into the substrate.

Seal all cracks and repair areas which are deteriorated.

Seal porosity and even out the surface of the substrate with a mortar and skimming compound from the MAPEI Building products range.

Apply the most suitable treatment on the dry and completely cured substrate, according to specific requirements. Use **Silancolor Primer Plus** or **Silancolor Base Coat Plus** for a reinforced protection from algae and fungi; in other cases, use **Silancolor Primer** or **Silancolor Base Coat**.

### Preparation of the product

**Silancolor Tonachino Plus** is supplied ready to use and just needs to be well mixed with a low-speed drill. If the product is too viscous, add 1-2% of water.

### Application of the product

Apply **Silancolor Tonachino Plus** with a stainless steel or plastic trowel over the dry primer. The product can also be applied by spray with suitable equipment. The protection cycle requires the application of one coat of **Silancolor Tonachino Plus**. Spread the product in a uniform layer levelling the product with a plastic trowel to create an even finish or using a damp sponge float to obtain the desired final effect. According to the

Tonachino's grain size and the roughness of the substrate, the application can be carried out in two layers, to reach a perfectly homogeneous finish.

**Silancolor Tonachino Plus** dries thanks to the physical process of water evaporation; in normal environmental conditions the product reaches complete drying in about 10 days. In the event of rain or high humidity, normal drying times increases; it is recommended to provide adequate protective measures (e.g. scaffold sheeting) to avoid imperfections on the façade.

## CLEANING

The equipment used for application can be cleaned with water before **Silancolor Tonachino Plus** dries.

## CONSUMPTION ACCORDING TO GRAIN SIZE

- **Silancolor Tonachino Plus** 0.7 mm: 1.7-2.0 kg/m<sup>2</sup> for a complete cycle;
- **Silancolor Tonachino Plus** 1.2 mm: 1.9-2.3 kg/m<sup>2</sup> for a complete cycle;
- **Silancolor Tonachino Plus** 1.5 mm: 2.2-2.6 kg/m<sup>2</sup> for a complete cycle.

For all versions, consumption is indicative and heavily influenced by the roughness of the substrate and the type of application.

## PACKAGING

**Silancolor Tonachino Plus** is available in 25 kg plastic drums.

## STORAGE

24 months if stored in a dry place away from sources of heat at a temperature of 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 Safety Data Sheet, available from our website [www.mapei.com](http://www.mapei.com).

PRODUCT FOR PROFESSIONAL USE.

## TECHNICAL DATA (typical values)

Complies with the following standards:

- product certified according to EN 15824 (Specifications for external renders and internal plasters based on organic binders), system 3 (also for applications subject to reaction to fire regulations);
- type according to EN 15824: water-based product for internal and external use

### PRODUCT IDENTITY

Consistency:

paste

Color:

white, from the MAPEI color chart range or in various colors obtained using the **ColorMap**<sup>®</sup> automatic colouring system

Density (EN ISO 2811-1):

1.65-1.95 g/cm<sup>3</sup> (according to grain size)

Dry solids content by weight (EN ISO 3251):

approx. 80%

Grain size:

0.7 mm; 1.2 mm; 1.5 mm

## APPLICATION DATA

Dilution rate:	ready to use
Recoat-time:	12-24 hours in function of humidity and temperature conditions and, in any case, only when the previous layer is completely dry
Application temperature range:	from +5°C to +35°C
Consumption:	1.7-2.6 kg/m <sup>2</sup> (according to grain size)

## FINAL PERFORMANCE

VOC content of ready-mixed product (white) (European Directive 2004/42/EC):	≤ 20 g/l
VOC content of ready-mixed product (colored) (European Directive 2004/42/EC):	≤ 30 g/l

## RESISTANCE TO BIOLOGICAL ATTACK (P.R.A. test report)

Applicable standard	Test	Results
EN 15457	resistance to mould and fungi	no growth
EN 15458	resistance to algae	no growth

## PERFORMANCE CHARACTERISTICS FOR CE CERTIFICATION ACCORDING TO EN 15824 TEXTURED COATINGS FOR INTERNAL AND EXTERNAL USE BASED ON ORGANIC BINDERS

Standard	Test	RESULTS AND COMPLIANCE WITH THE REQUIREMENTS			
		Grain sizes	0.7 mm	1.2 mm	1.5 mm
EN ISO 7783	water vapour permeability	$S_D$	0.11 m	0.09 m	0.09 m
		consumption related to $S_D$	2.0 kg/m <sup>2</sup>	2.3 kg/m <sup>2</sup>	2.5 kg/m <sup>2</sup>
		result/class	V1 ( $S_D < 0.14$ m)		
EN 1062-3	water absorption	w	0.04 kg/(m <sup>2</sup> ·h <sup>0.5</sup> )	0.04 kg/(m <sup>2</sup> ·h <sup>0.5</sup> )	0.03 kg/(m <sup>2</sup> ·h <sup>0.5</sup> )
		result/class	W3 ( $w \leq 0.1$ kg/(m <sup>2</sup> ·h <sup>0.5</sup> ))		
		adhesion	0.95 N/mm <sup>2</sup>	1.07 N/mm <sup>2</sup>	1.16 N/mm <sup>2</sup>
EN 1542	adhesion	type of breaking	A/B	A/B	A/B
		result/class	complying ( $\geq 0.3$ MPa)		
		EN 13687-3	durability	number of cycles	20
final adhesion	2.16 N/mm <sup>2</sup>			2.06 N/mm <sup>2</sup>	1.11 N/mm <sup>2</sup>

		type of breaking alterations	A/B no	A/B no	A/B no
		result/class	complying ( $\geq 0.3$ MPa)		
EN 1745	thermal conductivity	result/class	0.89 W/mK (tab value, P = 90%, related to the reference dry density of 1800 kg/m <sup>3</sup> )	1.21 W/mK (tab value, P = 90%, related to the reference dry density of 2000 kg/m <sup>3</sup> )	
EN 13501-1	reaction to fire	result/class	A2-s1,d0		

Silancolor Tonachino Plus follows the Künzel theory (DIN 18550) being  $S_D \times W < 0.1$ ,  $S_D \leq 2$  and  $W \leq 0.5$



## 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)

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The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation.

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