



# CHEMICAL BONDING

### WHERE TO USE

Painting of porous vertical interior or exterior surfaces where protection against atmospheric agents is required (rain, frost) along with high vapour permeability.

# Some application examples

- Painting of Mape-Antique renders.
- Painting of cement- or lime-based renders.
- Painting of de-humidifying renders.

## **TECHNICAL CHARACTERISTICS**

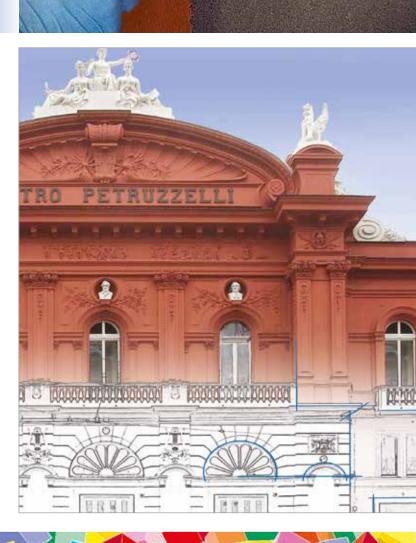
**Silexcolor Paint** is a one-component modified potassium-silicate-based paint with selected fillers and pigments resistant to natural light for internal and external vertical surfaces.

After the silicatisation reaction, **Silexcolor Paint** forms a single body with the substrate and fixes the elements which make up the paint with no risk of peeling.

Once it has completely dried, **Silexcolor Paint** forms a dressing coat without forming a surface skin and which is permeable to vapour.

**Silexcolor Paint** has excellent resistance to ageing, freezing weather conditions and de-icing salts and surfaces treated with this product have a very low capacity of attracting dirt.

Surfaces to be painted with **Silexcolor Paint** must first be treated with **Silexcolor Primer**.





TECHNICAL DATA (typical values) Conformity with:	– DIN 18363, paragraph 2.4.1
PRODUCT IDENTITY	
Consistency:	dense liquid
Colour:	white, in colours from the MAPEI colour chart range or in various colours obtained using the <b>ColorMap®</b> automatic colouring system
Density (EN ISO 2811-1) (g/cm³):	approx. 1.46
Dry solids content (EN ISO 3251) (%):	approx. 55
Brookfield viscosity (mPa·s):	approx. 14,000 (rotor 6 - rpm 10)
APPLICATION DATA	
Dilution ratio:	Silexcolor Primer 20%
Waiting time betweeen two coats:	at least 24 hours under normal humidity and temperature conditions, and in all cases, when the previous layer is completely dry
Application temperature range:	+8°C to +35°C
Consumption (kg/m²):	0.35 to 0.45 (two coats)
FINAL PERFORMANCE DATA	
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):	≤ 28
Resistance to chemical aggression:	excellent
Colour variation after 200 hours exposure to a Weather-Ometer (ASTM G 155 cycle 1):	ΔE<1
Vapour diffusion resistance coefficient μ (EN ISO 7783):	214
Resistance to passage of vapour relative to a 0.1 mm-thick dry coat $S_D$ (EN ISO 7783) (m):	0.02
Capillary action water absorption coefficient W (EN 1062-3) [kg/(m²·h⁰.5)]:	0.120
S <sub>D</sub> x W = 0.02 x 0.120:	0.002 kg/(m <sup>2</sup> ·h <sup>0.5</sup> ) The $S_D \times W$ value is lower than 0.1 therefore, as $S_D \le 2$ and $W \le 0.5$ , <b>Silexcolor Paint</b> follows the Kuenzle theory (DIN 18550)
CLASSIFICATION ACCORDING TO EN 13300	
Hiding power at spreading rate of 10 m <sup>2</sup> /I EN ISO 6504-3:	> 98% class 2
Wet scrub resistance 200 cycles EN ISO 11998:	9 micron class 2
Specular gloss 85° EN ISO 2813:	2.2 dead matt
Fineness of grind EN 21524:	< 100 micron fine

If colours with a poor covering capacity are used, use **Silexcolor Base Coat** instead of **Silexcolor Primer**.

Silexcolor Primer and Silexcolor Paint form a complete modified silicate-based paint system for interior and exterior vertical surfaces.

Thanks to its special silicate-based formulation, **Silexcolor Paint** may be used to create fine, delicate shades that give surfaces a natural-looking finish.

**Silexcolor Paint** is available in a wide range of colours which can be obtained through the **ColorMap**® automatic colouring system.

#### **RECOMMENDATIONS**

- Do not apply **Silexcolor Paint** on damp or insufficiently cured substrates.
- Do not apply Silexcolor Paint on nonabsorbent substrates.
- Do not apply Silexcolor Paint on painted substrates.
- Do not apply Silexcolor Paint when rain is likely or when humidity is higher than 85%.
- Do not apply Silexcolor Paint on substrates exposed to direct sunlight or strong winds.
- Do not apply the Silexcolor Paint at temperatures below +8°C or above +35°C.
- Do not apply Silexcolor Paint on the same façade in different times.
- Do not dilute **Silexcolor Primer** with solvents or water.
- While applying protect eyes with protective goggles and hands with suitable gloves.
- While applying cover nearby areas that are not to be coated (windows, doors, tiles, etc.).
- Do not use uncoated metal or glass containers when transferring the product from one container to another.

# **APPLICATION PROCEDURE Preparation of the substrate**

Substrates must be sufficiently cured and dry and treated with Silexcolor Primer or Silexcolor Base Coat. The surface to be applied must be thoroughly clean and sound. Completely remove all dirt, dust, grease, oil, and saline efflorescence by sanding, sandblasting or with a high-pressure water cleaner.

**Very important:** substrates must be totally free from old paint residues. Wait until the surface is completely dry.

Cover adjacent areas that are not to be coated (windows, doors, tiles, etc.).

Apply a coat of **Silexcolor Primer** or **Silexcolor Base Coat** and once dry (after 12 to 24 hours) apply **Silexcolor Paint**.

### **Preparation of the product**

Dilute **Silexcolor Paint** with 20% **Silexcolor Primer** and mix with a drill at low speed until completely homogenised.

To prepare partial quantities **Silexcolor Paint** should be first mixed as described above rather than removing a partial amount from the original container.

## **Application of the product**

Silexcolor Paint can be applied by conventional techniques: brush, roller or spray over dry Silexcolor Primer or Silexcolor Base Coat.

At least two coats are necessary for thorough coverage, one applied 24 hours after the other at normal temperatures and humidity, and in all cases when the underlying layer is completely dry.

#### Cleaning

Brushes and rollers can be cleaned with water before the product dries.

# **CONSUMPTION**

Consumption is heavily influenced by the absorption and roughness of the substrate, by the colour of the paint applied and according to the application technique used. Under normal conditions, consumption is generally 0.35-0.45 kg/m² (for two coats of the product).

#### **PACKAGING**

**Silexcolor Paint** is supplied in 20 kg plastic drums.

#### **STORAGE**

**Silexcolor Paint** can be stored for 12 months, in a dry place at a temperature between +5°C and +30°C. Protect from frost.

# SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Silexcolor Paint is not considered as dangerous according to the current regulations concerning the classification of mixtures. It is however recommended to use gloves, eyes protection and to take the usual precautions for the handling of chemicals. If the product is applied in closed environments, make sure the area is well ventilated.





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



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

