

MAPEI WALL COATINGS

The Beautiful Protection

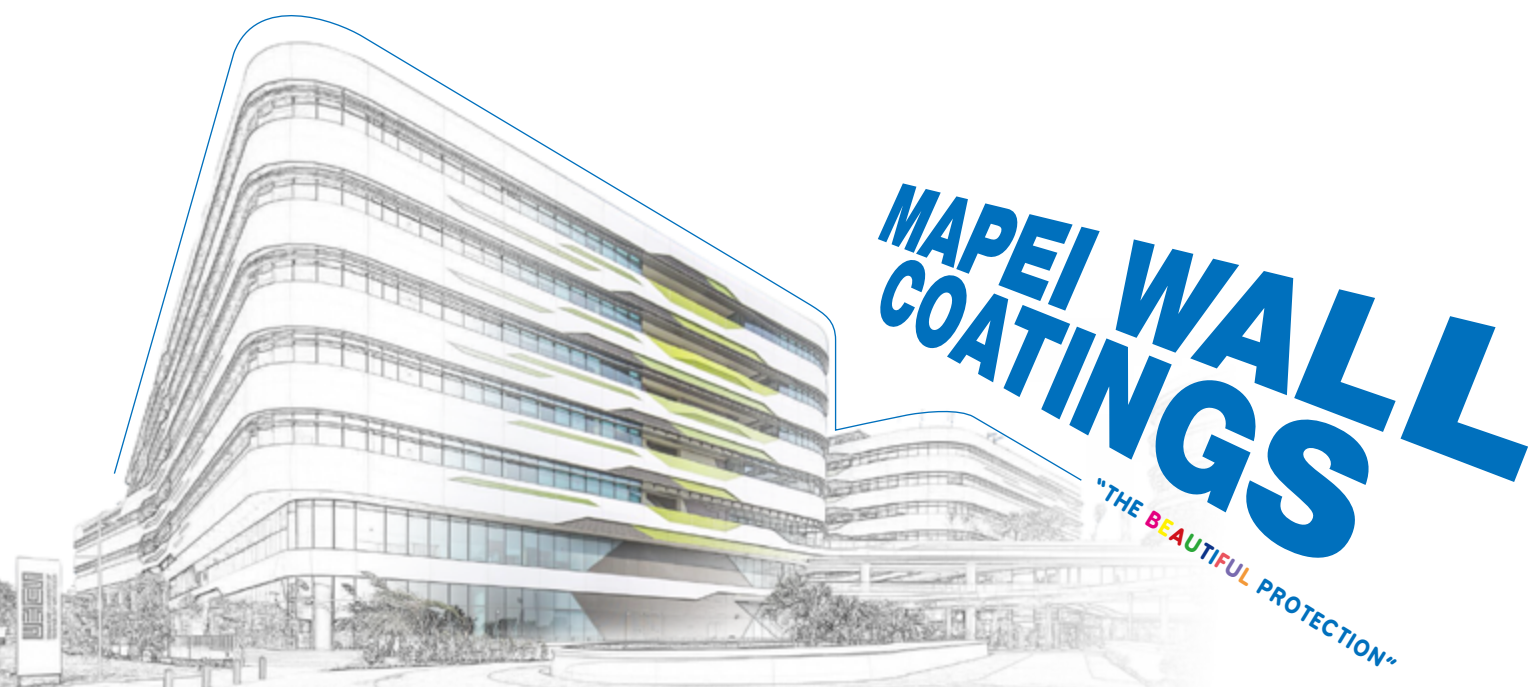


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MAPEI

ADHESIVES • SEALANTS • CHEMICAL PRODUCTS FOR BUILDING





Introduction

The elements and environmental influences have exacted much toll and damage to many otherwise beautiful facades of buildings created through the painstaking creations of designers and architects so much so the fabric of the building is reduced to deterioration and unsightliness, let alone waste and money. Often paints that are used to coat buildings have not been properly selected to suit the different climatic conditions that prevail in each region, also not considering the substrate on which they must be applied. Paints can be attacked by physical, chemical and biological agents.

Environmental awareness has prompted much eagerness to know more about such issues and to appreciate the advantages and disadvantages that can be derived from the use of different paints.

Since the 1940s, Mapei offers a wide range of dedicated mortars, renders, smoothing compounds and finishing products which make up an Integrated Application System. In the field of Wall Coatings, Mapei has acquired an extensive experience with more than 50 million m² worldwide of external surfaces painted.

Technological know-how and the availability of a wide range of products in mortar, skim-coats and coating range ensure to obtain the best results when choosing the most suitable façade repair system integrated with specific coating products.

Mapei has available a complete range of coatings for professional use suitable for various usages:

- Mineral paints
- Film-forming paints

Mineral paints

A range of highly breathable products based on inorganic mineral binder, perfectly compatible with all kinds of "cementitious" substrates. Mineral coatings are formulated with mineral-based binders. The most important families are silicates and silicones.

SILICATE-BASED SILEXCOLOR SYSTEM

Create a single body with the masonry substrate.

Modified potassium silicate-based system in water dispersion, for protecting and decorating renders.

The characteristic of modified potassium silicate binder is of not being film-forming but to react chemically with calcium hydroxide and atmospheric carbon dioxide : through silicatisation process, it becomes a single body with the substrate.

Real silicate mineral coatings contains <5% organic content, according to DIN 18363. It is durable, environmental friendly and contains low VOC. The high vapour permeability of the mineral silicate coating is essential in combination with de-humidifying mortars.

SILEXCOLOR PITTURA (PAINT)

Description:

One-component modified potassium-silicate-based paint for internal and external application.

Suitable for:

- Painting of cement or lime-based renders.
- Painting of de-humidifying renders.
- Painting of porous vertical interior or exterior surfaces which require high transpiration and protection against atmospheric agents (rain, frost).

Characteristics:

- Chemical bonding: **Silexcolor Pittura (Paint)** forms a single body with the substrate and fixes the elements which make up the paint with no risk of peeling.
- Permeable to vapour.
- Resistant to aggressive environments: excellent resistance to ageing, freezing weather conditions and de-icing salts.
- Low dirt pick up.
- Aesthetic function: create fine, delicate shades that give surfaces a natural-looking finish.

Certification:

Silexcolor Pittura (Paint) is certified by SGBC (SGBP 2017-913) and in compliance with German Standard DIN 18363.

Packaging: Available in 20kg drums.

Colours: Colour options are available from the "Wall Protective and Decorative Coatings colour chart" or obtained using the ColorMap automatic colouring system.



SGBP 2017-913



SILEXCOLOR BASE COAT

Description:

Transpirant, coloured silicate undercoat with a smooth finish and good filling properties for internal and external surfaces.

Suitable for:

- Applying as a base layer on old organic paint, including paintwork which is slightly flaky, to help the bonding of coloured finishing products from the **Silexcolor** range.
- Applying as a base filling layer, with quartz granules, for de-humidifying render.
- Applying as a base levelling and filling layer for old render (that is not excessively deteriorated or crumbly).
- Creating an even finish and covering small imperfections.

Characteristics:

- Improves bonding of potassium silicate-based finishing products, when applied on old, organic resin-based finishing materials.
- Uniform rough finish, which makes it easier to apply layered finishing materials.
- Permeable to vapour.
- Evens out substrates with different surface finishes and fills defects.

Certification:

Silexcolor Base Coat is in compliance with German Standard DIN 18363.

Packaging: Available in 20kg drums.

Colours:

Colour options can be obtained using the ColorMap automatic colouring system.



SILICONE-BASED SILANCOLOR SYSTEM

Water repellent

Highly water-repellent, silicon resin-based system in water dispersion, for protecting and decorating the surface of all type of masonry. All the products from the **Silancolor** range are formulated using silicon derived binders. The base molecule is quartz crystal. This component is modified through specific chemical reactions, so that the original inorganic part "fuses" with organic components. At the end of this reaction, a molecule is formed with new, improved characteristics those of quartz: solidity, hardness, impregnability and inalterability; with those of the organic part: water-repellence and compatibility with the mineral components of the substrate.

SILANCOLOR PITTURA (PAINT)

Description:

Silicone resin based paint for internal and external application.

Suitable for:

- Painting surfaces where an attractive finish, high water repellence and excellent transpiration are required for the substrate.
- Decorating all cement or lime-based renders.
- Decorating de-humidifying renders.
- Applications in interiors on gypsum or old paints as long as they are well bonded to the substrate, do not chalk and must be primed with **Silancolor Primer**.

Characteristics:

- Water-repellent and transpirant: unlike conventional synthetic paint, it forms a porous layer rather than a film which is impermeable to water vapour, and the special silicon resins contained in the product form an excellent barrier against the penetration of water, so that render always remain dry.
- Good adhesion to substrates: it forms a chemical bond and adheres directly to all types of traditional renders, dehumidifying renders (**Mape-Antique Line**) and well bonded old paints.
- Resistant to aggressive environments: its water repellent properties protect the substrate from chemical aggression, such as UV rays, alkalis, cleaning operations and general weathering without altering its properties.
- Low dirt pick-up.
- Smooth and attractive finish that is durable.

Certification:

Silancolor Pittura (Paint) is certified by SGBC (SGBP 2017-914) and in compliance with Singapore Standards 345 (SS345).

Packaging: Available in 5kg, 20kg drums.

Colours: Colour options are available from the "Wall Protective and Decorative Coatings colour chart" or obtained using the ColorMap automatic colouring system.



SILANCOLOR PRIMER

Description:

Silicon resin based primer in water dispersion with high penetration properties.

Suitable for:

Applying as primer for wall surfaces before applying **Silancolor Pittura (Paint)** finishing coat.

Characteristics:

- Regulates the absorption of the substrate and promote the bonding of **Silancolor Pittura (Paint)**.
- Helps surface dust consolidation of surfaces that need to be treated.
- Odourless and does not contain solvents and can be applied in closed or not well ventilated areas.

Certification:

Silancolor Primer is certified by SGBC (SGBP 2017-919).

Packaging:

Available in 10kg drums.



FILM-FORMING PAINTS

A range of organic binder-based, film-forming products which form a protective film on the substrate while leaving it sufficiently transpirant. Film-forming finishes are based on binders constituted by water-dispersions of synthetic resins. The hardening of the product is carried out for film formation: the phenomenon starts with the evaporation of water contained in the product, so that the binder particles come closer and closer until they merge, forming a uniform layer which adheres to the wall in a physical way.

MALECH

Description:

Acrylic water-based primer for wall surfaces, used as regulator of substrate absorption and as adhesion promoter.

Suitable for:

- Well cured new or old renders as long as they are not damaged, before applying a coloured coat of **Elastocolor** or **Quarzolite** range product.
- Over old paint.
- On surfaces that need to be treated in enclosed or poorly ventilated environments.

Characteristics:

- Odourless and solvent free
- Penetrates better than traditional water-based primers.

Certification:

Malech is certified by SGBC (SGBP 2017-922).

Packaging:

Available in 2 kg and 10kg drums.



ELASTOCOLOR PAINT

Description:

Single-component, flexible acrylic resin-based paint in water dispersion for protecting and decorating concrete.

Suitable for:

- Painting micro-cracked facades and concrete structures with deformation problems.
- Protecting concrete surfaces subject to small deformations when under load against carbonation.
- Protecting and decorating render with micro-cracks, including render already painted, with a continuous flexible layer.
- Protecting thin and pre-fabricated structures subject to cracking.

Characteristics:

- Long-lasting flexibility: forms a flexible finishing coat which is impermeable to water and aggressive agents in the atmosphere (CO₂ - SO₂), while remaining permeable to vapour.
- Resistant to aggressive environments: excellent resistance to ageing, freezing weather conditions and de-icing salts.
- Excellent resistance to chemical agents.
- Low dirt retention: the photo-chemical film which forms makes it very difficult for dirt to remain attached to the surface.

Certification:

Elastocolor Paint meets the requirements of EN 1504-9 (Products and systems for protecting and repairing concrete structures) and EN 1504-2 (Protection systems for concrete surfaces).

Packaging: Available in 20kg drums.

Colours:

Colour options can be obtained using the ColorMap automatic colouring system.



SILANCOLOR AC PITTURA (PAINT)

Description:

Acrylic-siloxane wall paint for internal and external application.

Suitable for:

- Painting new and well-cured cementitious or lime-based renders which are cohesive, well-attached and not crumbly.
- Painting over old paint, old plastic or mineral coatings which are well attached to the substrate.
- Indoor application on gypsum or old paintwork, as long as well-bonded and not crumbly.

Characteristics:

- Offers combined advantages of siloxane resin-based mineral paint and synthetic paint.
- Water repellent and Vapour permeable.
- Excellent protection against UV rays.
- Resistant to all types of climatic conditions, aggression from smog, saltwater and sunlight.
- Hard-wearing, protective layer on substrates for long-lasting protection.
- Bonds perfectly to all types of render and to old, well-bonded paint.
- Attractive, even smooth, matt finish.
- Bright and dark colours can be achieved.

Certification:

Silancolor AC Pittura (Paint) is certified by SGBC (SGBP 2017-915).

Packaging: Available in 20kg drums.

Colours:

Colour options are available from the "Wall Protective and Decorative Coatings colour chart" or obtained using the ColorMap automatic colouring system.



QUARZOLITE TONACHINO PLUS

Description:

Mould and algae-resistant acrylic plaster for internal and external applications.

Suitable for:

- Decorating facades where particular environmental conditions favour the growth of mould and algae.
- Decorating facades deteriorated by algae and mould.
- Decorating all types of cementitious and lime-based render.
- Decorating concrete walls.
- Application on internal plaster and on old paintwork (well-bonded and not crumbly).

Characteristics:

- Resistant to the growth of mould and algae.
- Good filling capacity: able to even out surface imperfections. Available in grain sizes of 1.2mm and 1.5mm.
- Resistant to aggressive environments: resistant in all climates and to the aggressive action of smog, salt-water and direct sunlight.
- Contains synthetic fibres for good crack resistance.
- Bonds perfectly to all types of conventional renders and to old, well-bonded paintwork.
- Good protection with aesthetic appeal: protects substrate and gives a uniform, attractive appearance with a rustic finish.

Certification:

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

Packaging:

Available in 20 kg drums.

Colours:

Colour options can be obtained using the ColorMap automatic colouring system.



QUARZOLITE BASE COAT

Description:

Coloured acrylic undercoat in water dispersion, with micro-granular quartz and selected charges for internal and external surfaces.

Suitable for:

- Base levelling and filling layer for old render (not excessively deteriorated or crumbly).
- Applying as base filling layer, with quartz granules, for new well-cured render.
- Applying as base layer on old paintwork, including paintwork which is slightly flaky.
- Preparing the base layer on cementitious surfaces before applying the final colouring coat, to regulate absorption of the substrate and improve bonding.
- Levelling the surface, by creating an even finish and by covering small imperfections.

Characteristics:

- Even out the absorption of the substrate and promote bonding of successive coats of paint.
- Its uniformly rough finish makes it easier to apply layered finishing materials.

Packaging:

Available in 20kg drums.

Colours:

Colour options can be obtained using the ColorMap automatic colouring system.



DURSILITE BASE COAT

Description:

Coloured smooth acrylic base coat, with a smooth finish and adhesion promoting properties.

Suitable for:

- Applying on all types of internal and external substrates.
- Applying on new, cured cementitious substrates and new lime or gypsum-based surfaces.
- Applying on old cementitious substrates and old lime or gypsum-based skim coats in reasonable condition or which are not crumbling that has never been painted.
- Applying onto old paintwork that is well attached to the substrate.
- Applying onto plasterboard.
- Applying as top coats in bright or subtle colours that do not normally offer sufficient hiding power on internal and external surfaces.

Characteristics:

- Evens out absorbency of the substrate and promotes adhesion before applying a coloured finishing product.
- Good covering: surfaces can be evened out to form a more uniform finish and to cover slight variations in colour.
- Smooth and even with a velvety finish.
- Helps successive coats of paint adhere more firmly, making application easier.

Packaging:

Available in 20 kg drums.

Colours:








Colour options can be obtained using the ColorMap automatic colouring system.



REFERENCES

PROJECT	SYSTEM USED	AREA (m ²)	YEAR OF COMPLETION	IMAGE
Armenian Church	Malech, Silancolor AC Paint, Dursilite Matt	2,000	2016	
Crown Robinson Condominium	Silancolor Base Coat, Quarzolite Tonachino 2 mm	2,000	2016	
Crystal Court Condominium at 456 River Valley Road	Malech, Elastocolor Paint	4,500	2016	
Church of St Peter and Paul	Silexcolor Base Coat, Silexcolor Paint	3,000	2015	
Fuk Tak Chi Museum	Silancolor Primer, Silancolor Paint	600	2015	
Marina View Substation CST 22KV/LV substation	Silexcolor Primer, Silexcolor Paint, Silancolor Primer, Silancolor Paint	2,000	2014	
Masjid Sultan Mosque	Silancolor Primer, Silancolor Paint, Silancolor AC Paint, Malech, Dursilite Matt	20,000	2014	
Nicoll Highway Road Widening (ER403)	Silancolor Base Coat, Silancolor Tonachino 2 mm	2,000	2014	

REFERENCES

PROJECT	SYSTEM USED	AREA (m ²)	YEAR OF COMPLETION	IMAGE
Two Link Bridges (connecting Ng Teng Fong General Hospital to Westgate to Big Box)	Silexcolor Primer, Silexcolor Paint	1,000	2014	
Church of St Anthony	Silancolor Primer, Silancolor Paint, Malech, Colorite Matt	1,000	2013	
Eastern Lagoon 1 Condominium	Silancolor Primer, Silancolor AC Paint	5,000	2013	
Nagore Dargah Indian Muslim Heritage Centre	Silancolor Primer, Silancolor Paint	1,000	2013	
Singapore University of Technology and Design (SUTD)	Silexcolor Primer, Silexcolor Paint, Silancolor Primer, Silancolor Paint, Silancolor AC Paint	30,000	2013	
Yueh Hai Ching Temple	Silexcolor Primer, Silexcolor Paint, Silancolor Primer, Silancolor Paint	5,000	2013	
South Beach Mixed Development (SAF NCO Club)	Silexcolor Primer, Silexcolor Base Coat, Silexcolor Paint	10,000	2012	
Thian Hock Keng Temple	Silexcolor Primer, Silexcolor Paint, Silancolor Primer, Silancolor Paint	1,000	2011	