



COLORACTIV

WATER-BASED SILOXANE PAINT WITH PHOTOCATALYTIC ACTION AND HIGH SOLAR REFLECTANCE FOR CONCRETE SURFACES AND SLATE-COATED BITUMEN LAYERS

COLORACTIV PRIMER

WHITE, WATER-BASED FIXATIVE PRIMER WITH HIGH SOLAR REFLECTANCE

GRANTS *LEED* CREDITS

CHARACTERISTICS	ENVIRONMENTAL	METHOD OF USE			PRECAUTIONS	
WATER BASED	ECO GREEN	MIX MECHANICALLY	SPRAY APPLICATION	APPLY BY BRUSH	APPLY BY ROLLER	STORAGE: KEEP AWAY FROM FROST

PROBLEM

REDUCE AIRBORNE POLLUTION, KEEP EXPOSED SURFACES CLEAN AND PREVENT EXTERNAL WALLS OVERHEATING



Atmospheric pollution in urban and other areas is one of the biggest problems of the present day and for future generations, due to its consequences both on the environment and human health.

In the air that we breathe there are pollutants produced by cars, heating, air conditioning and factories.

SOLUTION

COLORACTIV is a siloxane paint, with special additives and pigments with photocatalytic action. It can substantially reduce the pollutants present in the atmosphere and promote the self-cleaning of surfaces to which it is applied.

What is more, its high solar reflectance prevents external walls overheating.



Photocatalysis is defined as the acceleration of the oxidation process of organic substances, in the presence of sunlight. A special variety of titanium dioxide is an excellent catalyst for this reaction, which acts on many

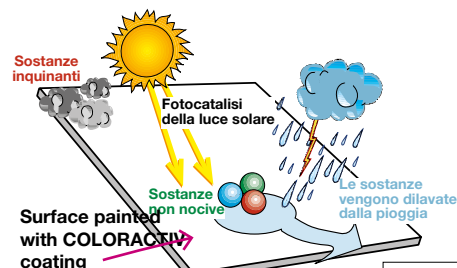


pollutants present in the atmosphere, transforming them into harmless substances. These substances are then washed away by the rain, hence preventing the accumulation of dirt and smog on the surfaces themselves. Just as important is the fact that the catalyst is not consumed, hence the surface is kept clean over time. In addition to the photocatalytic action there are the extra advantages of siloxane paints, such as their water-repellence and high water vapour permeability. Furthermore, the white finish and special additives give the product high solar reflectance (0.84) and infrared emissivity (>0.9) levels, with a consequent substantial decrease in temperature and consistent energy saving on air conditioning in buildings. **COLORACTIV PRIMER** is a special primer made with special resins in a water emulsion and selected additives, white and solvent free.

APPLICATION FIELDS

COLORACTIV and **COLORACTIV PRIMER** are used as photocatalytic protective coatings for outer stone and concrete walls and for bare slated bituminous coverings. In such coatings, the photocatalytic function only acts at the surface, to a depth of a few microns. It is therefore important to use a primer which promotes adhesion of the coating to the surface.

COLORACTIV PRIMER is used as a bonding primer to promote adhesion of the **COLORACTIV** photocatalytic finish coat.



Photocatalytic action of COLORACTIV coating



NITROGEN OXIDE REDUCTION (NO_x)

NO_x = 26%

SOLAR REFLECTANCE INDEX

Solar Reflectance Index ≥ 105

TEST REPORTS

- Solar reflectance index (SRI)
- Department of Mechanical and Civil Engineering
- University of Modena and Reggio Emilia
- Reduction of nitrogen oxide (NO_x) pursuant to ISO 22197-1
- Department of chemistry, physics and electrochemistry
- University of Milan

TECHNICAL CHARACTERISTICS

	Standard	COLORACTIV	COLORACTIV PRIMER
Appearance		Liquid	Liquid
Colour		colour "LONG LIFE COLOURS" - INDEX (1)	White
Density	EN 2811-1	1.60 ± 0.10 kg/L	1.60 ± 0.10 kg/L
Dry residue	UNI EN ISO 3251	56 ± 3%	69 ± 3%
Storage in original packaging in a dry place, away from frost		12 months	12 months
Workability characteristics			
Application thickness		0.1-0.2 mm	0.2-0.3 mm
Waiting time - till tack-free drying (2)		90 ÷ 120 minutes	90 ÷ 120 minutes
Waiting time - for applying each coat over the previous one (2)		12 hours	12 hours
Application temperature		+5°C to +35°C	+5°C to +35°C
Application		manual or spray	manual or spray
Performance characteristics			
	Standard	Product performance	Product performance
Class and type	EN 1504-2	I PI	
Permeability to water vapour	EN 7783-1	Sd <5 m - class I	-
Adhesion test	EN 1542	≥1.0 MPa	-
Water absorption through capillarity	EN 1062-3	w < 0.07 kg/m ² ·h ^{0.5}	-
Reduction of Nitrogen Oxide (NOx)	ISO 22197-1	26% (3)	-
Solar reflectance	ASTM E-903	0.84 (4)	0.7 ÷ 0.8
Emissivity in the infrared	ASTM C-1371	> 0.90 (4)	-
SRI (Solar Reflectance Index)	ASTM E-1380	≥ 105 (4)	-
Thermal resistance - Working temperature		-30°C to +90°C	-30°C to +90°C
Hazardous substances	EN 1504-2	According note in ZA.1	-

Test conditions: temperature 23±2°C, 50±5% R.H. and air velocity in test area <0.2 m/s. **These parameters may vary based on the specific conditions of the worksite: temperature, humidity, ventilation, porosity of the substrate.** (1) Available in the colours coded "P1" (pastel colours). (2) The stated times may be longer or shorter as the temperature decreases or increases. (3) Test report of the Department of chemistry, physics and electrochemistry - University of Milan. (4) Test report of the Department of civil and mechanical engineering - University of Modena and Reggio Emilia.

METHOD OF USE

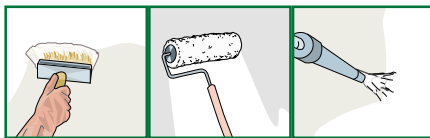
• SURFACE PREPARATION

The surfaces must be clean, dry and free from crumbling or loose parts. Any loose parts should be removed before use. Holes, cracks and cavities must be filled.

• APPLICATION

The recommended application cycle consists of a first coat of **COLORACTIV PRIMER** high solar reflectance primer, followed by a coat of **COLORACTIV** finish coating. The photocatalytic action is provided only at the surface of the coating; it is thus important that it be applied to a suitable surface.

COLORACTIV PRIMER is ready for use; we do not recommend diluting with water. If necessary, dilute no more than 10%. Mix the product well before use. Apply with a brush, roller or spray. Coverage depends on the surface and its porosity and the thickness of the coating.



Once the coat of **COLORACTIV PRIMER** is dry (at least 12 hours after application), apply **COLORACTIV** finish coat with a brush or roller. The product is ready for use; do not dilute more than 10% with water.

• CONSUMPTION

On moderately absorbent surfaces, the consumption of **COLORACTIV PRIMER** is around 0.2 liters/m² per coat; this increases to 0.3 liters/m² per coat on slated bituminous coverings. The consumption of **COLORACTIV** finish coat is 0.2-0.3 liters/m² per coat.

• PRECAUTIONS

Apply only to surfaces with proper run-off, do not use on surfaces on which water collects and stagnates.

- Do not apply on wet or damp surfaces.
- Do not use for tanks, cellars or drains subject to high water counterthrust or to water under pressure.
- Do not use the product for surfaces or containers in contact with liquids for human consumption, drinking water or which may come into contact with solvents or mineral oils.
- Mix the product well before applying.
- Keep the containers sealed before use.

- Apply at temperatures between +5°C and +35°C. Extreme conditions of heat and cold must be avoided during application. Do not apply if the temperature is likely to drop below +5°C while the paint film is drying. Do not apply on very hot substrates because the paint filming process would be unduly accelerated with negative consequences on the cohesion and adhesion of the product to the substrate.

- Do not apply in very humid conditions or if it threatens to rain while the film is still drying.
- The product cannot be walked on except for routine maintenance.
- In applications with bituminous coverings, apply to slated coverings only. Neither product is suited to use on smooth coverings.
- After use, clean tools with water and, if the product has already dried, we advise you to use white spirit or hot water to remove it.
- The product is subject to freezing; store at temperatures >+5°C.

PACKAGING

COLORACTIV
14-Liters Bucket

COLORACTIV PRIMER
14-Liters Bucket

• FOR ANY FURTHER INFORMATION OR ADVICE ON PARTICULAR APPLICATIONS, CONTACT OUR TECHNICAL OFFICE • IN ORDER TO CORRECTLY USE OUR PRODUCTS, REFER TO INDEX TECHNICAL SPECIFICATIONS •

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Construction Systems and Products

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