

Rifletti

Innovative heat-reflective and self-cleaning siloxane paint.



Developed by studying the *cool material* technology, here is an innovative product that thanks to its nanotechnology reflects the sunrays with consequent considerable savings on air-conditioning. Extremely water repellent, thanks to the lotus effect, it prevents dirt and water deposit on the surface. These two exceptional properties allows for well-preserved exterior walls overtime and improved indoor living quality.



Self-cleaning



Heat-reflective



Extremely water-resistant



Color unchanged over time



Coverage
7,5 - 9 m²/l
For coat



Dilution
1° coat 10-20%
2° coat 0-10%



Exterior

DESCRIPTION

Rifletti is a heat-reflective, self-cleaning exterior paint with very low dirt pick-up. Composed of a special silane resin, it is extremely water repellent and has excellent vapour permeability together with a mould and algae-resistant formula. **Rifletti** has a very **high SRI (Solar Reflectance index)** combined with high thermal emissivity. This allows to reflect most of the UV rays that irradiate the exterior walls and quickly release the small quantity of heat that was absorbed during the day at night. Its **SRI is 100.2** as testified by the Giordano Institute. Therefore, the quantity of heat that is transferred to the inside of the house sensibly decreases with consequent improved living comfort e **significant energy savings in air-conditioning**. The heat-reflective property provides another great advantage: by reducing surface temperature, surface thermal and mechanical stress is also reduced, thus significantly reducing the possibility of hairline cracks and preserving the cleanliness of the façade. **Rifletti** is also formulated with an innovative **self-cleaning technology**, developed by studying the behaviour of the lotus leaf, the so-called **lotus effect**: thanks to a high static contact angle combined with an excellent water repellence, **Rifletti** does not allow any deposit of dirt, dust or any other staining agent on the surface. **Rifletti** also has medium vapour permeability and has successfully undergone the most severe tests in terms of wear-resistance, freeze-thaw cycles and mould resistance, showing excellent resistance to atmospheric and polluting agents, light fastness and resistance to UV-rays. The SRI is affected by the selected colour so we recommend to pick pastel colours in order to get the best result in terms of energy saving.

USES

Due to its exceptional characteristics, **Rifletti** is ideal in Urban Heat Islands, where its use can generate positive externalities, and for all buildings particularly exposed to bad weather or affected by humidity and therefore subject to bacterial attacks. It is also particularly suitable for renovation and protection of old and new thermal insulation systems (EIFS).

PROPERTIES

- Very low dirt pick-up and self-cleaning properties.
- Heat-reflective.
- Balances indoor temperature.
- Excellent water resistance and medium vapour permeability.
- Prevents surface deterioration.

SUITABLE SURFACES

Dehumidifying plasters, cement-lime plasters, lime plaster, cement plasters, skimcoat with INTOCEM RASANTE or INTOCALCE, old mineral paints and coatings, old synthetic paints and coatings provided they are sufficiently absorbent and bonding with the substrate. On EIFS (Exterior Insulation Finishing System).

SURFACE PREPARATION

Surface must be dry and cured, perfectly anchored to the substrate, free from dirt, grease, mould, algae, bacteria, fungi, efflorescence or anything that could compromise adhesion or the successful outcome of the work. Erect scaffolding so as to allow continuous application until architectural interruptions in order to avoid visible joints. On synthetic paints and coatings, make sure the surface is sufficiently absorbent and that they are perfectly anchored to the substrate in order to guarantee good bonding of **Rifletti**.

New plaster: on new and even substrates, remove any trace of dust and dirt, make sure that there is no excessive presence of humidity and that the plaster is perfectly dry and cured. On a sound and dry substrate, apply 1 coat of PROTEXIL® ACQUA PRIMER diluted 1:1 - 1:3 with water, according to the absorption rate and soundness of the plaster. Apply by brush until full saturation of

Colorificio MP srl

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the surface.

Old substrates: on old, deteriorated, chalky and/or irregular substrates, on old mineral paint, carefully brush the surface, scrape and remove any deteriorated part. Perform high pressure washing and treat the surface from algae and fungi by applying MUROSANO RISANANTE diluted 1:5 – 1:10 with water. Apply by brush on the contaminated surface until full saturation. Let it act for at least 24 hours, then proceed with the application of 1 coat of PROTEXIL® PRIMER in order to consolidate the substrate and regulate the absorption. In the case of particularly rough, uneven plaster, touch-ups, hairline cracks, superficial cracks (provided they are not of dynamic-structural origin), apply 1 or more coats of PROTEXIL® STRUCTUR. If the irregularities of the substrate are widespread and extensive, we recommend to make a skimcoat with INTOCEM PLUS with the application of a 150 – 160 g/m² fiberglass mesh. Make sure the substrate is perfectly cured before applying the subsequent coat. Effloresces must be neutralized in advance by brushing the surface and applying PROTEXIL® IMPERMEABILIZZANTE at full saturation of the surface. Rising damp should be properly treated with ARCADIA® RISANANTE.

Renovation of EIFS: perform high pressure washing, then treat the full area with MUROSANO RISANANTE diluted 1:5 – 1:10 with water. Apply by brush on the contaminated surface until full saturation and let it act for at least 8 hours. When the surface is completely dry, perform cleaning by high-pressure washer. On a sound, compact and dry substrate apply a coat of PROTEXIL® ACQUA PRIMER diluted 1:1 – 1:3 with water according to the degree of absorption and the solidity of the substrate. Apply by brush until the surface is fully saturated.

APPLICATION Rifletti is applied by brush or roller in 2 coats. Dilute the 1st coat max 20% with water and 2nd coat max 10% with water. Wait at least 6 hours in-between coats.

TECHNICAL DATA

CONSUMPTION	0.11 – 0.13 l/m ² per coat
DRYING AT 20°C	Touch-dry 1 h ca., in depth 8-12 h.
DENSITY	1.32±0.05 kg/l
(UNI EN ISO 2811-1:2008)	
VISCOSITY	19000 cPs ± 4000 cPs
(UNI EN ISO 2555:2002)	
VOLUME SOLIDS AT 105°C	61.77% ±1%
GRAIN SIZE	Fine
(UNI EN ISO 1062-1:2005)	
OPACITY AT 7 m²/l (UNI EN ISO 6504-3:2007)	Class 2
WATER VAPOUR PERMEABILITY (UNI EN ISO 7783- 2:2001)	Class V2 (medium permeability) Sd = 0.397 m with thickness 196 µm
LIQUID WATER PERMEABILITY (UNI EN 1062-3:2008)	Class W3 (low permeability) w = 0.032 kg/(m ^{2h0.5})
CRACK BRIDGING PROPERTIES (CBA) UNI EN 1062-7	Class A2
RESISTANCE TO FUNGI UNI EN 15457	Test passed
UV AGING RESISTANCE 1000 HOURS UNI 1062-11	Test passed ΔE = 0.29
FREEZE-THAWE RESISTANCE UNI 10686	Test passed.
STATIC CONTACT ANGLE (SCA) ML080_2	106°
DIRT PICK-UP UNI 10792	Very low ΔL = 0.44
SOLAR REFLECTANCE ASTM E903 and ASTM G 173	0.80
THERMAL EMITTANCE	0.906

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ASTM C1371**SOLAR REFLECTANCE INDEX** 100.2**ASTM E1980****BASES** A - B - C**PH (UNI 8311:1981):** 8.5 ± 1.0**STORAGE** Minimum 1 year in perfectly sealed original package. Store at temperature > +5°C.**COLOURS** White, "I Colori del Colore", "NCS -Index".**PACKAGES** 10 l - 5 l**Emission limits of Volatile Organic Compounds (VOC) according to directive 2004/42/CE:**

c) coatings for exterior walls of mineral substrate

Limit value Phase II (since 01.01.2010) = 40 g/l

Max VOC value in the product: 25 g/l.

IMPORTANT NOTES

- Surface must be perfectly dry and cured and well-adherent to the substrate, free from dirt, grease, mould, bacteria, fungi, efflorescence or anything that could compromise adhesion or the successful outcome of the work.
- Store away from frost (minimum + 5°C).
- Store in a cool, dry place away from sunlight.
- Use the product at room and substrate temperature between + 8°C and + 35°C and with relative humidity < 75%
- Avoid drying when room and substrate temperature is below +5°C.
- Do not apply when rain is imminent, in full sunlight, when it is very windy or with persistent fogs.
- Protect surfaces against driving rain until the product is fully cured.
- Position scaffolding for continuous application as far as architectural interruptions so as to prevent the creation of joints, overlaps and colour differences.
- Purchase the colour in a single batch in a sufficient quantity to complete the job or at least a sufficient portion of the job in order to avoid visible colour differences.
- Wash the tools with water immediately after use.
- Due to its high alkaline nature of the product, it could irritate the skin and eyes. Avoid contact.
- For any issue not covered by TDS, please refer to the relevant safety sheet and/or contact our Technical Office.

The above information has been obtained from scrupulously controlled tests, and represents our best and most recent knowledge. This information is provided for reference purposes only. It is not binding upon the manufacturer, and neither may it constitute grounds for any kind of complaint whatsoever associated with the use of the products described, also considering that the conditions of use are beyond our control.