

IR WALL PLUS

HEAT-REFLECTIVE EXTERIOR
FINISH PAINT



**Thermal-ceramic coating,
for any exterior wall surfaces**



10 L

COMPOSITION

Synthetic polymers and acrylsiloxanes, micro-reflectors, hollow ceramic and glass microspheres, fillers, TiO₂ and silicon nanoparticles

MAIN CHARACTERISTICS

Water repellent, Breathable, Excellent thermal regulator, highly reflective



Heat reflective

RESISTANT OVER TIME

Thanks to its perfect adhesion to the surface and to its elasticity, it maintains its performances over time.

HEAT INSULATING PARTICLES

Heat-insulating and heat-reflecting particles reduce heat transfer by reflecting thermal radiation and, at the same time, creating a barrier against humidity. This translates into significant energy savings. It is suitable for applications on walls surface exposed to unfavourable climatic conditions and for the protection of surfaces with micro-cracks issues.

PROPERTIES AND BENEFIT

It is a thermoceramic nanotechnology coating composed of microreflectors, hollow ceramic and glass microspheres, fillers and ultra-reflective TiO₂ and silicon nanoparticles. **Thanks to its nanotechnological characteristics, it keeps the painted surface waterproof but highly breathable, with excellent thermal regulator abilities.**

It has excellent filling power for surfaces with micro-cracks issues, even at very low temperatures (-20 °C) and/or in case of temperature variations, without flaking. It is breathable and water-absorption resistant.

In addition, thanks to the application of nanoparticles and their cross-linking mechanism, it can also achieve a significant

reduction in collecting dust and environmental pollutants. Available in white, it can be coloured with traditional or IR reflective pigments.

It offers all the great advantages of a high-quality painting: perfect coverage, excellent matte texture, high elasticity and surface adhesion, excellent filling power and high UV and alkali resistance.

Thanks to its ability to reflect thermal radiation, it mitigates Urban Heat Island Effect, improving building energy performance, with tangible and certified results. IR WALL Plus, thanks to the high quality and technology of the materials used, **is a paint with a high solar reflectance index (SRI = 108) for energy saving.**

APPLICATION

IR WALL Plus can be applied directly to external surfaces (masonry, concrete, plasterboard, drywall, skim coats) and wherever water-based paints can be applied. New concrete or masonry should dry more than 3-4 weeks before applying primer. Complete the NS67 RASOTHERM NATURAL LIME cycle. Final performance of the material can be adversely affected by unfavourable climatic conditions occurring during or immediately after application. **APPLICATION NOTE Ready to use.** Mix well before use. If necessary, applying the product thinned with up to a max of 5% water by volume. Application temperature must be between 8-35 °C. Two coats are required, with a good quality brush or roller. Do not apply excess paint. Make sure to provide adequate covering to all edges and corners. Wait min. 4-6 hours before proceeding with the subsequent layers. Mix well during application.

SURFACE PREPARATION

Before applying, the application surface should be dry and clean. Carefully clean the surfaces and remove any residues. Avoid any cracks or fissures on the substrate. It is recommended to fix them previously. Very dirty surfaces (humidity, mold) must be pre-treated. Apply NS67 Muffa to the entire surface. Perform surface washing. Then apply NS67 CMIX Primer consolidante, following instructions. To fill microcracks, consider applying NS67 FONDO ACRYLSIL® leveling primer. For larger cracks, use a suitable filler.

CONSUMPTION AND DRYING TIME

Yield: **5 m²/L** for 2 coats (50 m² / pack, for the two coats application). Drying time: **25 minutes**, depending on the thickness of the coating. Dry film: 8 hours. Low temperatures and high humidity can affect drying times.

APPLICATION UTENSILS AND STORAGE

After use, all tools and equipment must be cleaned immediately with water. Store in a cool, dry and well-ventilated place away from heat and direct sunlight. Containers which have been partially used should be kept carefully closed. Protect from frost. Always transport in closed containers that are up-right and secure. Stored in its original airtight containers, the product has 18 months' shelf life, undiluted.

TEST E PERFORMANCE

☑ Test	📄 Standard	🏷 IR WALL PLUS
Determination of wet-scrub resistance and cleanability of coatings	UN1 EN ISO 11998	(Ldft) = 7,99 micron Class R2
Cross-cut test	UNI EN ISO 2409	Class 1
Pull-off test for adhesion	UNI EN ISO 4624	2,0 MPa - Breaking 100% A/B
Determination of through-dry state and through-dry time	UNI EN ISO 29117	25 minutes
Determination of liquid water permeability	UNI EN 1062-3	W = 0,072 kg/(m ² h ^{0.5}) Class W3
Determination and classification of water-vapour transmission rate (permeability)	UNI EN ISO 7783	Sd = 0,0070 m Thickness= 185 µm µ = 38 Class V1
Determination of dry film thickness	UNI EN ISO 2808 - Method 4A	135 micron (consumption 125 gr/m ²)
Determination of wet film thickness	UNI EN ISO 2808 - Method 1A	147 micron
Determination of crack bridging properties	UNI EN 1062-7	Class >A1
Determination of volatile organic compounds (VOC) and/or semi volatile organic compounds (SVOC) content	ISO 11890-2 (rif. 2004/42/CE)	19,57 gr/lit
SRI	ASTM E 903-12 - ASTM C 1371-15 ASTM G 173-12 - ASTM E 1980-11	108
Thermal Resistance Test	UNI EN ISO 1934:2000	R = 0,38 m ² K/W
Packaging: 10 L Consumption : 5 m ² /L Tyntometric System: Yes		

The correct application of the product is the sole responsibility of the user. Any visits or site inspections by Nanosilv staff are intended to provide technical application recommendations, but in no case to inspect the construction site or perform quality checks on behalf of Nanosilv srl.

PRECAUTIONARY STATEMENTS - CLP Article 45: UFI CODE 23S4-10CR-E00V-RUEU

Keep out of reach of children. Do not reuse container. Avoid contact with skin and eyes. In case of skin contact, wash off with soap and plenty of water. Never use solvents or thinners. In case of eye contact, rinse thoroughly with plenty of water, seek medical assistance. If swallowed, seek immediate medical assistance and show container or label to the doctor in attendance. Do not let product enter drains. Dispose of containers contaminated by the product in accordance with local or national legal provisions. Before use, read and understand the Safety Data Sheet.

LIMITED WARRANTY INFORMATION - Please read carefully.

The information contained herein is true and correct to the best of Nanosilv's knowledge. Final determination of the suitability of the material, in relation to the specific use of the product, is the sole responsibility of the user. Nothing herein should be interpreted as a warranty. Since conditions and methods of use of our products are beyond our control, observing applicable law or regulation is the sole responsibility of the user. Nanosilv disclaims liability for any incidental or consequential damages. This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

ITEM SPECIFICATIONS

Exterior painting finish with application of a nano-structured, water-based, thermo-ceramic, heat-reflecting micro coating, composed of micro-reflectors, hollow ceramic and glass microspheres, fillers and ultra-reflective TiO₂ (titanium dioxide), which reflect thermal radiation and silicon nanoparticles. To be applied, after priming, in 2 coats with a brush or roller, approximately 4 hours apart.

Characteristics:

Finish paint with thermal resistance = 0.38 m²K/W.

Water vapour permeability UNI EN 7783 Class V1; Liquid water permeability UNI EN 1062-3 Class W3; Cross-cut test UNI EN ISO 2409 Class 1; Pull-off test UNI EN ISO 4624 2 MPa, cleanability of coatings Class 2, SRI 108.

The product must protect:

- from heat dispersion through opaque surfaces and thermal bridges;
- from overheating due to thermal radiation;
- from atmospheric agents. Material certified according to UNI EN 1934:2000.

Part of the CAM certified cycle.

NANOSILV PAINT APPLICATION CYCLE

CLEANING and WALL PREPARATION:

1- Spray anti-mold type NS67 MUFFA and leave to act for 24 hours and then rinse (yield 8/10 m²/L)

2- Spray primer type NS67 CMIX diluted 1:6 as a primer and leave to dry for 4 hours (yield diluted 8/10 m²/L)

FINISH:

3- Spread uniforming primer type NS67 FONDO UNIFORMANTE, consumption 0.35-0.40 Kg/m² (yield 32 m²/per jar) and leave to dry for 8 hours (recommended for exteriors on plaster)

4- Spread two coats of paint type IR WALLPLUS (for exteriors) at least 4 hours apart, yield 5 m²/L with 2 coats (yield 50 m²/per jar).

N.B.

For interiors it is essential to check that the **pre-existing paint is coherent with the support** (see tear test with a cutter and duct tape), **otherwise it must be removed hot or with other useful tools.**