

Art.0136 Diamante Lucido rev 3.0

Art.0137 Diamante Satinato rev 3.0

Art.0138 Diamante Opaco rev 3.0



High-quality pure acrylic paint for indoor and outdoor use Mod. 51 Rev 64

available with gloss, satin and matt finish.

Last update 02/04/2020

HACCP-certified according to UNI EN 11021:2002 standard

With silver ions – antibacterial protection of the film

CHARACTERISTICS:

Premium wall paint composed of acrylic resins in water emulsion, titanium dioxide and/or light-fast pigments, special additives to guarantee stability and easy application, perfect adherence to surface. Excellent spreading rate and high opacity, producing a compact, gloss, satin or matt finish, with lasting resistance when dry to washing with common detergents in water and the action of atmospheric agents. **DIAMANTE** is non-flammable, odourless, water-repellent, and is free from ammonia, formaldehyde and all toxic solvents, making it ideal for use in spaces where ill persons and allergy sufferers live. **DIAMANTE** is available **LUCIDO (Glossy)**, **SATINATO (Satin)** and **OPACO (Matt)**.

The low environmental impact of the product in all phases of its life cycle is proven by its **Environmental Statement** which shows the LCA (Life Cycle Assessment) study. Formaldehyde and formaldehyde donors were not intentionally added to the formulation of this product.

USE:

The characteristics of **DIAMANTE** make it particularly suitable for use in rooms where extreme hygiene is necessary, such as canteens, kitchens, hospitals, surgeries, etc. It is widely used for the decoration and protection of exterior walls with high exposure to rain and other weather conditions, and on interior walls where high resistance to washing and wear is required. After suitable preparation of the surface, **DIAMANTE** can be applied on plasterwork, reinforced concrete, precast concrete (without shuttering oil), plaster and similar materials, old paint (washables, oil-based, lime-based), wood, hardboard, fibreboard, terracotta, paper, cardboard, etc.

SURFACE PREPARATION AND APPLICATION:

Scrape, brush and remove any loose old paint or plasterwork. Ensure that the surface is sound, dry and clean. Infiltrations of damp must be sealed.

Exterior: on already painted exterior walls apply a first coat of **RESINPOL** to seal and consolidate the substrate. In case of particularly fragile surfaces repeat application after a few hours. On new exterior walls apply a 1st coat of **PRIMER A**.

Interior: On interior walls apply a 1st coat of **PRIMER A** or **FISSATIVO ACRILICO** diluted as per TDS, until full saturation of the surface or **SMARTCOAT 0.1 mm** diluted 10% before use. Fill and smooth any holes or cracks.

Apply **DIAMANTE** by brush, roller or airless spray, in two coats and wait 8–12 hours between coats. Dilute first coat 10-15% with water in volume, second coat 0-10%.

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IMPORTANT NOTES:

- Before application, ensure that the surface to be painted is perfectly dry and hardened, and that it has good adherence to the supporting ground. It must be clean and free from oil, grease, mould, fungus, bacteria, efflorescence or any other defect that could impair adherence or successful results.
- Do not allow product to freeze (minimum 5°C).
- Store product in a cool, dry place and do not expose to direct sunlight.
- Use product at a temperature of the work environment and treated surface between 8°C and 35°C. Relative humidity must not exceed 75%
- Do not allow drying to take place with temperature of the work environment and treated surface below 5°C.
- Do not apply product if rain is likely or in the presence of strong sunlight, strong winds or persistent fog.
- Protect treated surfaces from rain for the time required to allow product to fully harden.
- Scaffolding should be erected in a way that allows work to be continued uninterrupted until a natural boundary of the building is reached, to avoid seams, overlaps and differences in shade.
- When coloured product is to be used, ensure that a sufficient quantity of the same batch of paint is available to complete the entire job, or at least to complete whole sections that will not reveal differences in shade.
- Wash all equipment with water immediately after use.

TECHNICAL DATA:

Drying time at 20°C	Dust dry 30' - 1 hours, In depth 8-12 hours
Dilution	1st coat : 10-15% with water 2nd coat: 0-10% with water
Consumption rate	0.055 –0.085 l/m ² per coat
Volume solids at 105°C	Lucido (Glossy) 39% Satinato (Satin) 44.5% Opaco (Matt) 52%
Density (UNI EN ISO 2811-1:2003)	1.19± 0.05 kg/l Lucido (Glossy) 1.29± 0.05 kg/l Satinato (Satin) 1.38± 0.05 kg/l Opaco (Matt)
Gloss Index	Lucido (Glossy) 52 ± 3 G a 60° Satinato (Satin) 52 ± 3 G a 85° Opaco (Matt) 3 ± 1 G a 85°
Grain size (UNI EN ISO 1062-1:2005)	Fine

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Wet-scrub resistance (UNI EN ISO 11998:2006)	Ldft=3,38 micron Class 1
pH	8.5 ± 1
Colours	White, NCS – Index, I Colori del Colore, Armonie d'interni.
Packages	14 l (on demand) – 10 l – 5 l – 1 l
Resistance to washing (UNI 10560)	>5000 Gardner cycles

TEST RESULTS* ACCORDING TO UNI EN 11021:2002

N°	Description	Method	Measure	Limit Value	Result
Essential Requirements					
7.1	Dirt pick up	UNI 10792	$\Delta L = 1,71$	$\Delta L \leq 3,0$	PASS
7.2	Smell	Appendix A	0	$\Delta L \leq 1,0$	PASS
Specific Requirements					
8.1	Washability	UNI 10560	> 5000	≥ 5000	PASS
8.3	Resistance to mould	Appendix C	1,0	$\leq 1,0$	PASS
8.4	Resistance to washing agents	UNI EN ISO 2812-1	No Alteration	After 24h of contact No Alteration	PASS
8.5	Resistance to disinfecting agents	UNI EN ISO 2812-1	No Alteration	After 24h of contact No Alteration	PASS
8.6	Resistance to thermal shock	Appendix D	No Alteration	No Alteration	PASS

*TEST REPORT 307/L date 17/10/2014 by GFC Chimica – Applied research & Technical development

Emission limits of Volatile Organic Compounds (VOC) according to directive 2004/42/CE:

Classification: i) one-pack performance coatings.

Limit Phase II (from 01/01/ 2010): 140 g/l

VOC: 30 g/l (max)

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.

Please refer to the relevant Safety Data Sheet.

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Environmental Statement_0136_Diamante Lucido

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Acrylic emulsion paint, specific for application on plasterboard, extra-high hiding power and opacity, permeable to water vapour, waterproof, excellent flow.

“The future depends on what we do in the present” -Gandhi-

At Colorificio MP we believe this is not only a quote, but an awareness that leads us in every action we take. The care for the Human-Being and the Environment has been our top priority from the start, at it has led us to constant research of innovative and sustainable solutions to improve the living comfort. Among the firsts to focus on the manufacturing of water-based paints, today we manufacture a wide range of eco-friendly paints and plasters, air-purifying systems, low-VOC products. Customer care, respect for the Environment and high quality 100% Made in Italy have always been our cornerstones and driver for innovation.

With this in mind, Colorificio MP has completed a LCA (Life Cycle Assessment) study to verify, evaluate and improve the environmental impact of our products. Through this study we were able to determine new sustainability goals and gain greater awareness regarding the processes that take place within the product life cycle and identify possible areas for improvement. The following environmental sheet contains information about LCA and LEED. The low environmental impact of the product in all phases of its life cycle is proven by its **Environmental Statement** which shows the LCA (Life Cycle Assessment) study. Formaldehyde and formaldehyde donors were not intentionally added to the formulation of this product.

Life Cycle Assessment (LCA)

LCA (Life Cycle Assessment) is a study aimed to analysing the environmental impact of a product, process or service during all the stages of its life cycle.

Through the LCA analysed according to UNI ISO 14040-44 (ISO 2006; ISO 2018) standard it is possible to quantify the potential environmental impact associated with a product or service.

The method is standardized and involves the use of indicators for the analysis of cause-effect relationships between the inventory of direct and indirect inputs and outputs of material and energy associated with the system, taking in consideration their impact on human health and on the Environment.

The analysis takes place in four phases:

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1. Goal and Scope

The main purpose of the LCA study is to identify the environmental performance of DIAMANTE and take, where possible, improvement actions.

The analysis takes into account direct and indirect inputs and outputs of material and energy for 1 kg of product (functional unit), consumption rate of DIAMANTE is 0.12 kg/m².

The system boundaries comply with the requirements of an EPD "from cradle to gate with options" and include the extraction of raw materials (upstream A1), transport to the production site (upstream A2), the manufacturing processes of the product at the Colorificio MP plant (core process A3), and the distribution to customers (downstream A4), which is optional.

2. LCI – Life Cycle Inventory

The required data to perform this analysis were gathered by the company for the inputs and outputs of material and energy from the manufacturing site and from the suppliers for all information concerning the life cycle of the raw material purchased.

When primary data were not available, the inventory was completed with bibliographic searches, not only in scientific journals, but also on the documentation produced for EPD certified products and the use of the Ecoinvent 3 database (Wernet et al., 2016) to support LCA analysis.

Where this was not possible, some approximations were necessary, supported by the technical data sheets to identify a product similar in chemical composition and technical properties to that used in the production process and available in the literature.

3. LCIA – Life cycle Impact Assessment

The evaluation of the environmental impacts connected to paints has been performed by applying the EPD (2013) method as recommended by the Swedish Environmental Management Council (SEMC) for the creation of the Environmental Product Declarations.

The categories of environmental impact analysed include global warming potential, photochemical oxidation, abiotic depletion, acidification and eutrophication.

		Unit	A1	A2	A3	A4	Totale
IMPACT CATEGORIES	Global Warming Potential	kg CO ₂ eq	1,95	0,03	0,03	0,15	2,16
	Photochemical oxidation	mg C ₂ H ₄ eq	1437,51	5,60	7,51	25,54	1476,16
	Abiotic depletion	mg Sb eq	4895,77	0,05	0,36	0,81	4896,99
	Acidification	g SO ₂ eq	12,88	0,20	-0,07	0,51	13,52
	Eutrophication	g PO ₄ eq	4,76	0,04	-0,02	0,12	4,90

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4. Life Cycle Interpretation

Overall, the most significant contribution in all impact categories is the module associated with the extraction of raw materials (A1). The A3 module associated with the manufacturing of products at the Colorificio MP production site, benefits from the consumption of electricity generated by green sources and the surplus produced by acidification.

LEED e GBC

LEED (Leadership in Energy and Environmental Design) is a voluntary certification program developed by U.S. Green Building Council (USGBC). Its main goal is to promote the development of high-performance sustainable buildings, through the use of a credit system. LEED promotes a sustainability-oriented approach, awarding building performance under valuable aspects such as, materials and sources used, the reduction of CO2 emissions, the improvement of indoor air quality, energy and water savings, design and site selection. GBC protocols were instead developed taking inspiration from the respective LEED rating systems, but they take into consideration the Italian and European construction and regulatory reality.

Diamante contributes with the following credits to LEED rating system:

LEED BD+C V4.1	GBC HOME	COMPLIANCE	POINTS
MR CREDIT - <i>Building Life-Cycle Impact Reduction</i>		LCA study	1-6 points
MR CREDIT - <i>Building product disclosure and optimization – environmental product declarations</i>	MR CREDIT 4 – <i>Products environmental optimization</i>	LCA study	1-2 points
MR CREDIT - <i>Building product disclosure and optimization – material ingredients</i>		<ul style="list-style-type: none">• Material ingredients report → List of chemical substances• Ingredients optimization → No dangerous substance	1-2 points
MR CREDIT - <i>PBT source reduction – Lead, Cadmium, and Copper</i>		Cadmium and Lead free	2 points
MR CREDIT - <i>Construction and demolition waste management</i>	MR CREDIT 2 – <i>Construction and demolition waste management</i>	The MP products are delivered on site through the use of recyclable or reusable materials, such as PP recyclable PP packaging and reusable wooden pallets.	1-2 points
EQ CREDIT - <i>Low emitting materials</i>	QI CREDIT 3 – <i>Low emitting materials</i>	<ul style="list-style-type: none">• Emission → N.A.• Content → N.A.	1-3 points
	MR CREDIT 5 – <i>Materials</i>	Credit compliance depends on the	1-2 points

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	<i>extracted, processed and produced at a limited distance</i>	location of the project site	
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Table 2 – Potential LEED and GBC HOME credits.

*Colorificio MP cannot guarantee that the above-mentioned credits will be obtained for all projects that are applying for LEED and GBC HOME certification. For each specific project it will be responsibility of the project manager and/or head engineer to evaluate.