

MAPECOAT ACT 021 MAPECOAT ACT 196

ADVANCED COATING TECHNOLOGY
WALL COATINGS WITH SUPERIOR PERFORMANCE



WALL COATINGS WITH SUPERIOR PERFORMANCE

Mapecoat **ACT**

A D V A N C E D
C O A T I N G
T E C H N O L O G Y



With more than 80 years' experience in the development of protective and decorative wall coatings, Mapei introduces new systems with advanced technology in durability and hygiene



Research & Development



Highly qualified team



Always ahead of compliance

Certified enamel wall paints for a healthier environment

Sometimes it is necessary to have a hygienic environment at home and in the workplace. These products have been specifically developed to ensure that certain environments, such as kitchens and hospitals are kept clean and hygienic, so the spread of germs is greatly reduced.

Areas that are used for the preparation of food and beverages (restaurants, cafes, schools, kitchens, breweries, food production plants, etc.) and **health sector facilities** (hospitals, surgeries, pharmaceutical environments, sports complexes, etc.), are subject to specific standards for paint systems to be applied.

Mapecoat Act enamel wall paints meet all legal requirements and are available in more than 1,000 shades from the **Mapei Master Collection**.



Mapecoat ACT 021

Hard-wearing hygienic enamel paint, specifically developed for the food and beverage industry. It is resistant to mould and complies with HACCP requirements.



Mapecoat ACT 196

Hard-wearing hygienic enamel paint, ideal for use in interior health sector environments. It is resistant to bacteria and complies with ISO 22196 standards.





Mapecoat ACT 021

DESCRIPTION

Semi-gloss enamel paint for interior walls, suitable for use in food and beverage environments. Excellent cleanability and mould resistance.

Ideal for food and beverage industries, including grocery stores, supermarkets, bars, restaurants, cafes, canteens, breweries and kitchen areas. It is the ideal enamel paint to protect and decorate areas where food and beverages are handled and processed and require long-term resistance to cleaning. Complies with the requirements of the HACCP protocol.



CHARACTERISTICS



Excellent cleanability



Low dirt pick-up



Resistant to mould



Certified



ColorMap®

BASED ON

Acrylic resin in water dispersion

AREAS OF USE

Walls and ceilings in areas where food and beverage are handled and processed

COLOURS

- White
- 1,002 shades from Mapei Master Collection
- Customised shades using the ColorMap® automatic tinting system

FINISH

Semi-gloss

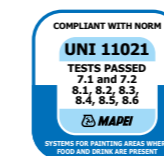
CERTIFIED AREAS OF USE

The product is suitable for use on walls and ceilings

PACKAGING

4 kg 16 kg

CERTIFICATIONS



MAPEI TECHNOLOGIES





Food and beverage areas

Regulatory framework and legal obligations synopsis

When considering surface coatings for food and beverage environments, **HACCP** requirements are often specified. HACCP (the acronym for Hazard-Analysis and Control of Critical Points) is a **protocol** (i.e. a set of procedures) aimed at preventing the possible contamination of food. It was introduced in Europe in the 1990's with Directive 43/93/CEE and, since 01/01/2006, with **Reg. CE 852/2004**, and it obliges **all those operating in the food and beverage sector** to apply the HACCP protocol.

HACCP and UNI Standards

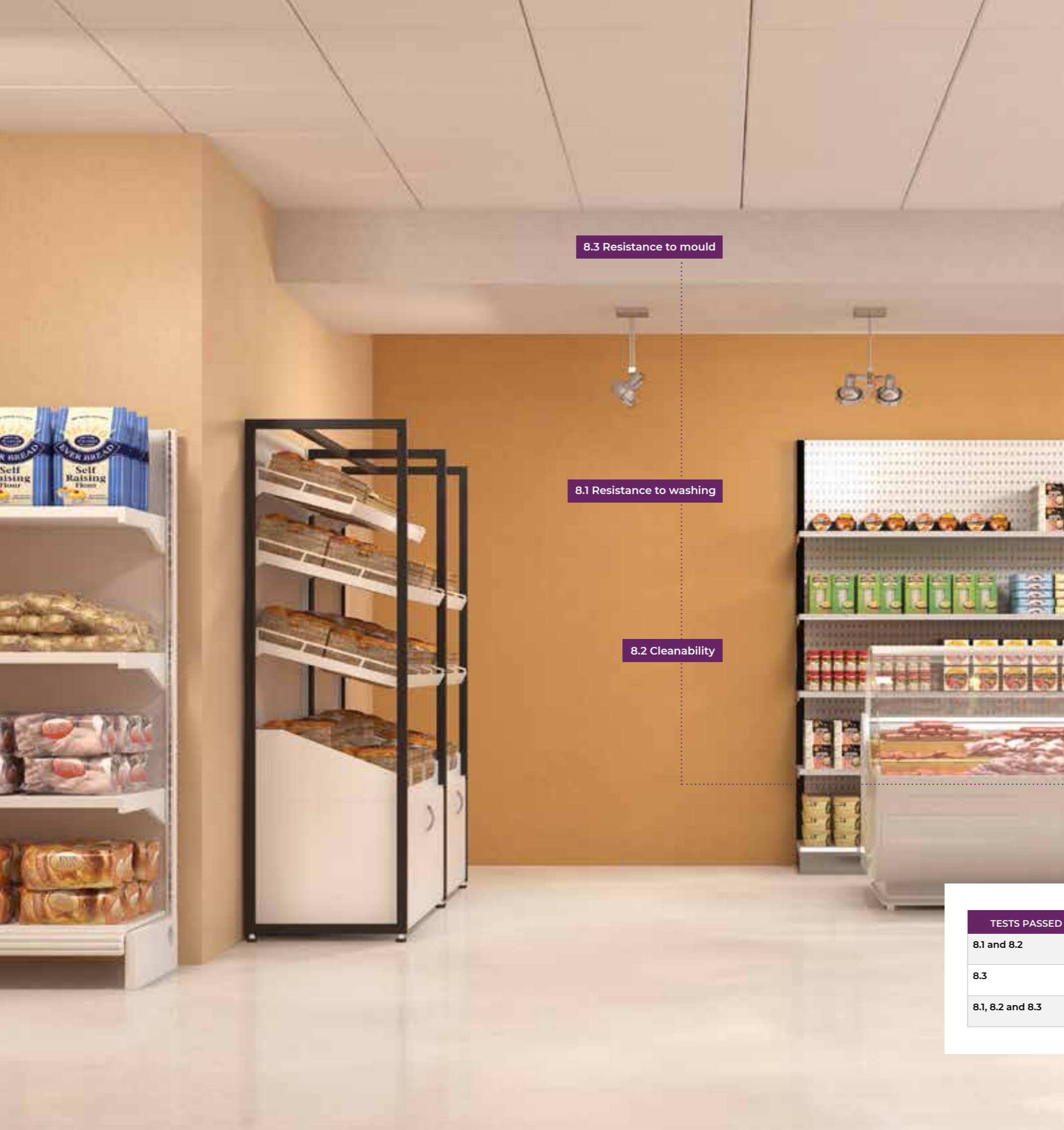
In the areas where HACCP regulations are applied, the **UNI 11021** standard specifies the requirements and relative test procedures for **paints and varnishes used on walls and ceilings in areas where food and beverage are handled and processed**. **Mapecoat ACT 021** fully complies with this standard.

UNI STANDARD	
TECHNICAL NORM	UNI 11021
TITLE	Paints and varnishes – Products and systems for painting areas where food and beverage are present – Requirements and test procedures
SUMMARY	The standard specifies the requirements and relative test procedures for paints and varnishes used on walls and ceilings in areas used to handle and process food



HACCP Origin

The **HACCP system** was created in the 1960's in the United States, with the aim to ensure that food supplied to astronauts in the NASA space programme, had no negative effects on their health or put missions at risk.



8.3 Resistance to mould

8.1 Resistance to washing

8.2 Cleanability

Walls and ceilings: fully compliant

To be certified as suitable for use in areas where food and beverage are handled or processed, a paint system is subject to required tests, such as dirt pick-up and odour emission. There are also specific tests dependent on whether a paint is used on walls or ceilings.

Cleanability and washing resistance test

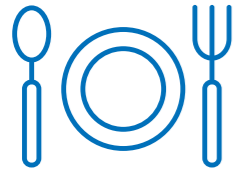
This test verifies the suitability of paint when applied on exposed walls subjected to frequent cleaning. Mould resistance is not required.

Mould resistance test

This test verifies the suitability of paint when applied on ceilings and high reach areas difficult to clean. Cleaning resistance is not required.

Mapecoat ACT 021 passes all tests,
for walls and ceilings.
One enamel paint for both surfaces!

TESTS PASSED	SUITABILITY DESCRIPTION
8.1 and 8.2	Suitable for walls and surfaces where resistance to mould is not required
8.3	Suitable for ceilings and surfaces where resistance to washing cycles is not required
8.1, 8.2 and 8.3	Suitable for walls, ceilings and surfaces where both resistance to washing cycles and resistance to mould are required



A fully compliant system

Mapecoat ACT 021 is formulated with a high polymer content. This enables the product to provide **long-lasting protection and resistance to cleaning cycles**.

Mapecoat ACT 021 meets all the specific requirements for food and beverage areas as specified by **UNI 11021 standards**.

CLASSIFICATION TABLE ACCORDING TO UNI 11021

Coating material and systems for environments with food and beverage. Suitable for areas where food and beverage are present:

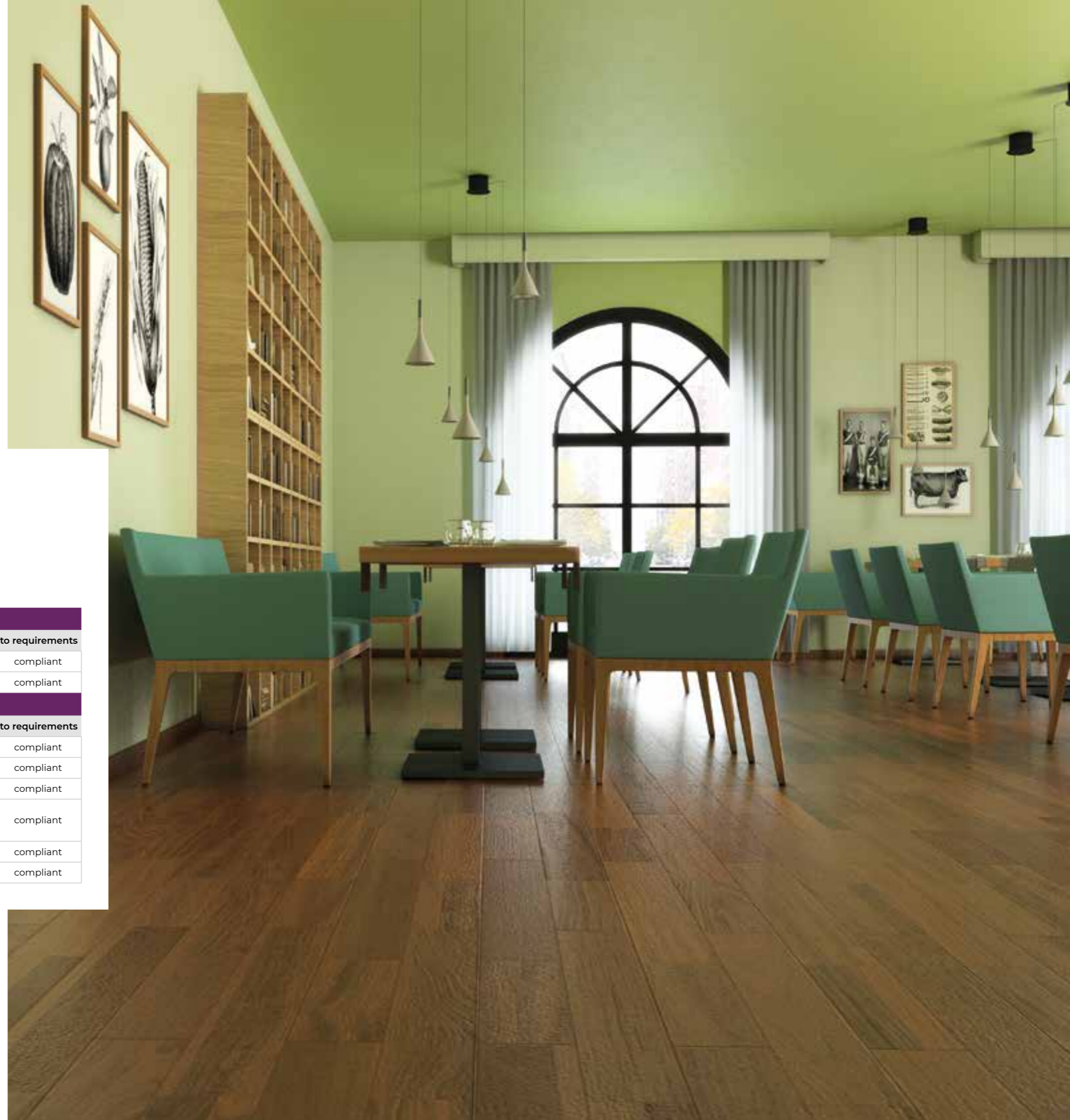
- walls and surfaces where resistance to mould is not required
- walls and surfaces where washing resistance is not required
- walls, ceilings and surfaces where washing and mould resistance is required
- may be cleaned with active-chlorine products, alkaline degreasing products and acid-based de-scalers
- suitable for surfaces that need to be disinfected
- for refrigeration units

BASIC REQUIREMENTS			
Type of test	Measurement method	Results and conformity to requirements	
Dirt pick-up	UNI 10792	$\Delta L \leq 3.0$	compliant
Smell	UNI 11021 Appendice A	≤ 1.0	compliant
SPECIAL REQUIREMENTS			
Type of test	Measurement method	Results and conformity to requirements	
Washability	EN ISO 11998	< 5 micron	compliant
Cleanability	UNI 11021 Appendix B	$\Delta E \leq 3.0$	compliant
Mould resistance	UNI 11021 Appendix C	≤ 1.0	compliant
Resistance to washing agents (active-chlorine products, alkaline degreasers, acid-based de-scalers)	UNI EN ISO 2812-1	no alteration	compliant
Resistance to disinfection agents	UNI EN ISO 2812-1	no alteration	compliant
Resistance to thermal shock	UNI 11021 Appendix D	no alteration	compliant

UNI 11021 cleanability test

In terms of product formulation, the toughest challenge is the cleanability requirements specified by UNI 11021.

Mapecoat ACT 021 is fully compliant ensuring it is suitable for all areas of the food and beverage sector.





Mapecoat ACT 021

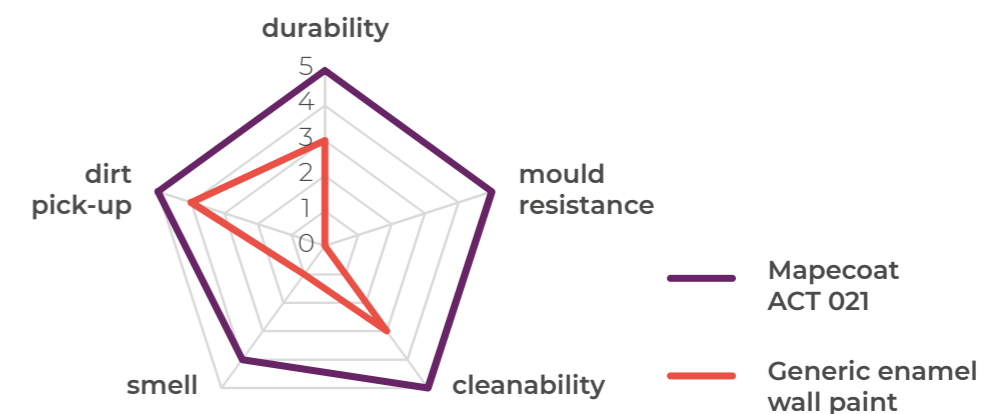
The big difference

Owing to **Advanced Coating Technology**, Mapecoat **ACT 021** compared to a generic enamel wall paint gives superior results.

Mapecoat ACT 021 exceeded in all performance parameters.

Mapecoat ACT 021

vs generic enamel wall paint



	MAPECOAT ACT 021	GENERIC ENAMEL WALL PAINT
Durability	5	3
Mould resistance	5	0
Cleanability	5	3
Smell	4	1
Dirt pick-up	5	4



Mapecoat ACT 196

DESCRIPTION

Semi-gloss enamel paint for interior walls, suitable for use in healthcare facilities. Highly washable and resistant to bacterial attack.

The ultimate enamel paint for protecting and decorating surfaces in the health sector, schools and recreational facilities that require a high level of hygiene. It complies with all standards for use in hospitals, clinics, medical centres, schools, nurseries, and leisure centres.

This product has been tested according to ISO 22196 standards.



CHARACTERISTICS



Resistance to special washing agents



Easy to clean and maintain



Highly durable



Certified



ColorMap®

BASED ON

Acrylic resin in water dispersion

AREAS OF USE

Walls and ceilings in the health sector, schools and recreational facilities

COLOURS

- White
- 1,002 shades from Mapei Master Collection
- Customised shades using the ColorMap® automatic tinting system

FINISH

Semi-gloss

CERTIFIED AREAS OF USE

The product is suitable for use on walls and ceilings

PACKAGING

4 kg 16 kg

CERTIFICATIONS



MAPEI TECHNOLOGIES





Health facilities

Cleaning: the best form of prevention

Cleaning and sanitising, if carried out correctly, eliminate most micro-organisms, whose cells and spores find favourable conditions for their survival and spreading in dirt and organic residuals.

Mapecoat ACT 196 has excellent resistance to cleaning in tests with washing agents and disinfectants, as specified by **UNI 11021** standards.

Keeping facilities clean

Basic rules of hygiene, such as washing hands thoroughly and **keeping facilities and furniture clean**, are usually sufficient to prevent bacteria from being deposited and growing on surfaces.

In general walls and ceilings account for more than 70% of the contact surfaces in a room but, they are also the most neglected areas.



Surface area of walls + ceiling: approx. 60 m²

Surface area of furniture: approx. 6 m²

Surface area of floors: approx. 20 m²



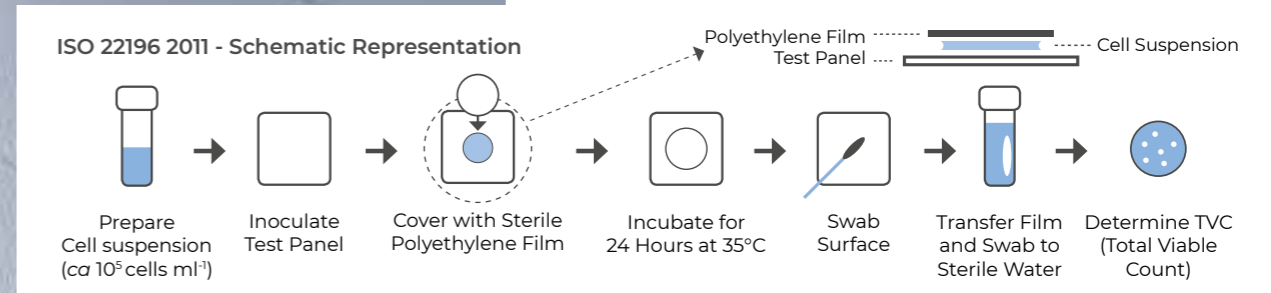
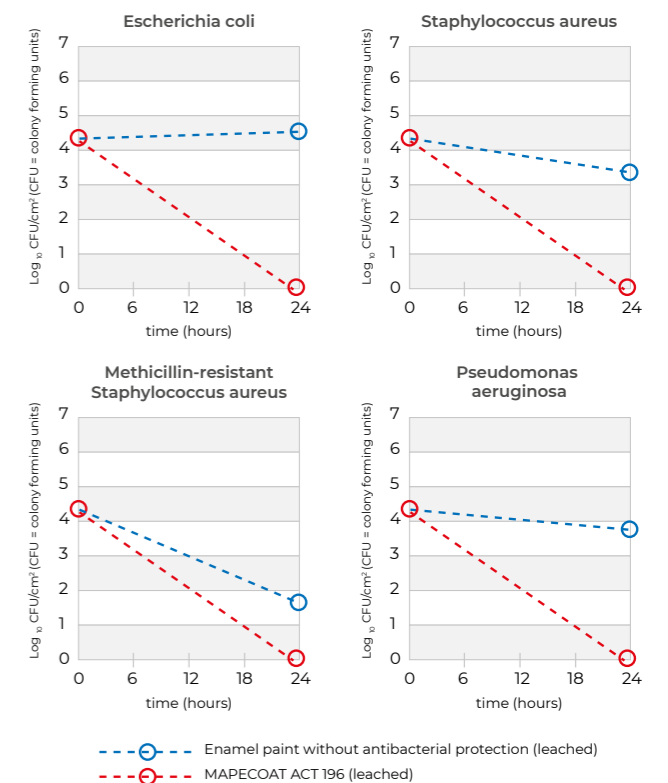
Certified protection against the most common bacteria

Mapei has always collaborated with **independent laboratories** to support the analysis and tests carried out in its own Research and Development centres to confirm results.

In addition to the data for EN 13300 classification, **Mapecoat ACT 196** also has Test Reports according to ISO 22196 standards carried out by IMSL (Industrial Microbiological Services Ltd) to *Determine the level of anti-bacterial activity of surface coatings.*

The graphics show how, in respect to a generic enamel wall paint without antibacterial protection, Mapecoat ACT 196 destroys quickly the bacterial colonies also when submitted to prior leaching for 24 hours in water.

Results of bacterial colonies abatement





The attraction of protected surfaces: hygienic and easy to clean

Mapecoat ACT 196 is an acrylic-based semi-gloss enamel paint for interior walls, containing **special protective wide spectrum biological agents** that prevent the deposit and spread of bacteria on surfaces, **also when they are washed or disinfected frequently**. An effective solution in a countless variety of shades!

RESISTANCE TO BACTERIAL ATTACK (IMSL TEST REPORT)				
STRAIN OF BACTERIA	Measurement method	Standard test	After 24 hours leaching	Result
Staphylococcus aureus:	ISO 22196	≥ 99.9%	≥ 99.9%	compliant
Escherichia coli:	ISO 22196	≥ 99.9%	≥ 99.9%	compliant
Methicillin resistant Staphylococcus aureus (MRSA):	ISO 22196	≥ 99.9%	≥ 99.9%	compliant
Pseudomonas aeruginosa:	ISO 22196	≥ 99.9%	≥ 99.9%	compliant

TECHNICAL DATA table (typical values)

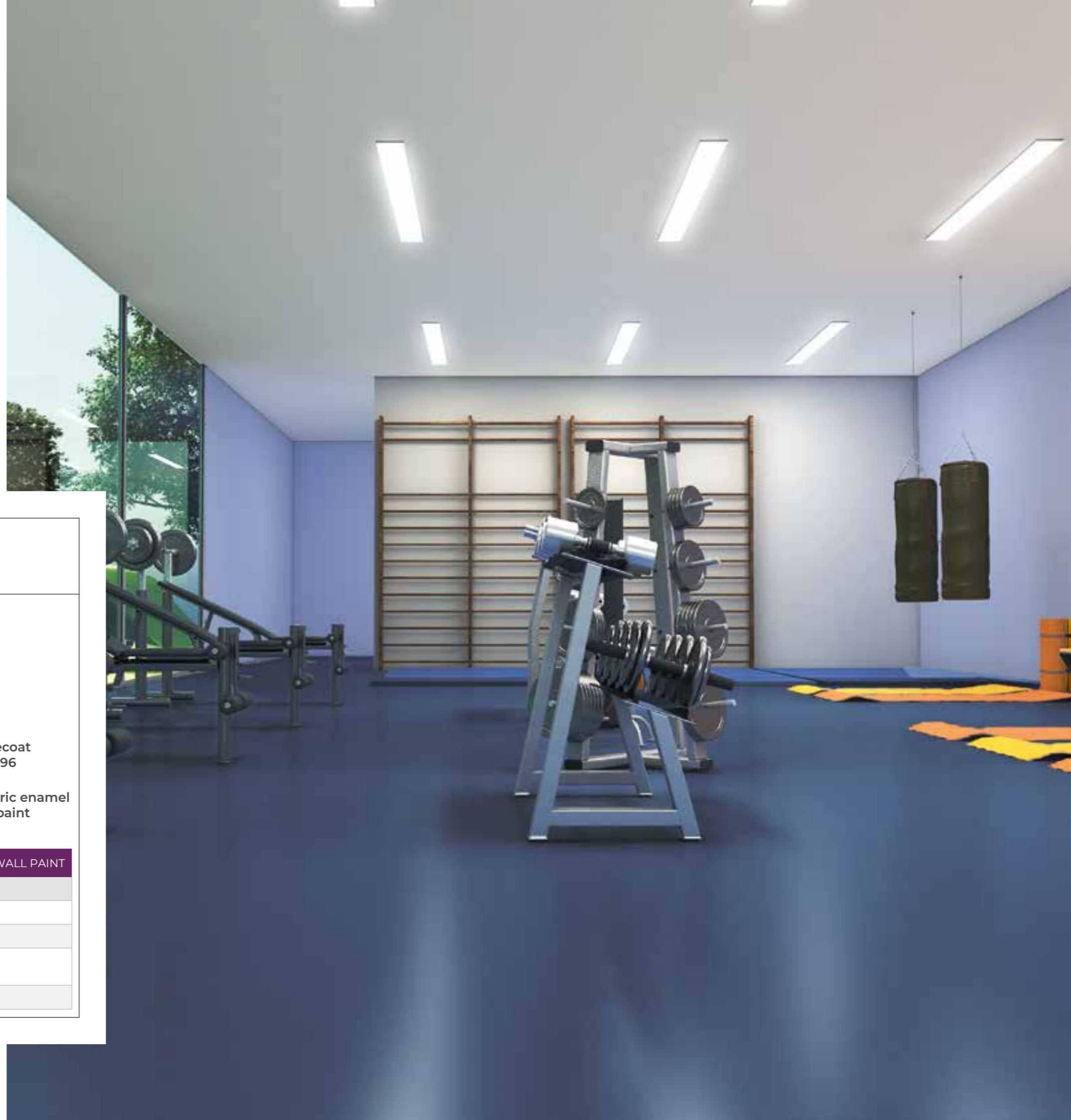
• Product tested according to ISO 22196 *Determination of antibacterial activity on a painted surface*

FINAL PERFORMANCE	
VOC evaluation after 28 days in emission chambers (white) (ISO 16000) (mg/cm ³):	< 2
VOC content of ready-mixed product (white) (European Directive 2004/42/CE) (g/l):	≤ 10
VOC content of ready-mixed product (coloured) (European Directive 2004/42/CE) (g/l):	≤ 50
Resistance to mould and fungi (EN 15457):	no growth
Dirt pick-up (UNI 10792):	ΔL ≤ 3.0
Smell (UNI 11021, Appendix A):	≤ 1.0
Cleanability (UNI 11021, Appendix B):	ΔE ≤ 3.0
Resistance to washing agents (active-chlorine products, alkaline degreasers, acid-based de-scalers) (EN 2812-1):	no alteration
Resistance to disinfection agents (EN 2812-1):	no alteration
Resistance to thermal shock (UNI 11021, Appendix D):	no alteration

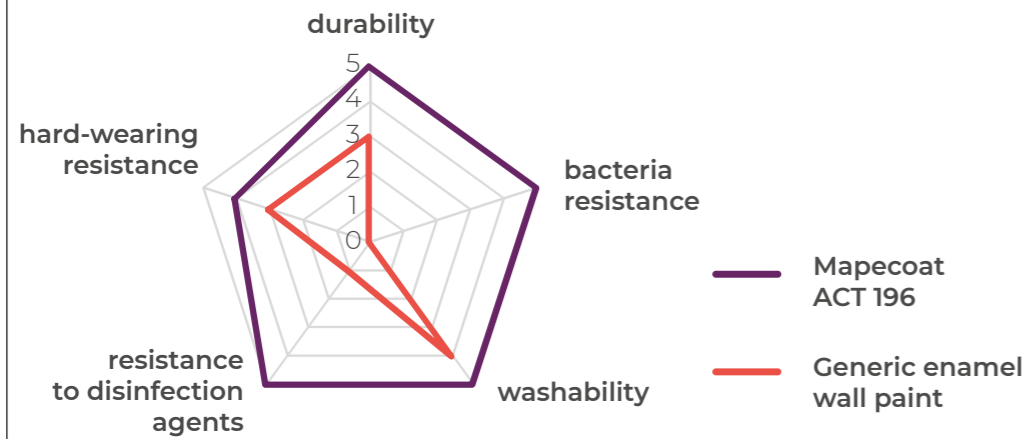


Mapecoat ACT 196 superior performances

Based on the **Advanced Coating Technology** of Mapei, **Mapecoat ACT 196** is superior compared to generic enamel wall paint for specific characteristics and also for common properties such as durability and resistance to wear.



Mapecoat ACT 196 vs generic enamel wall paint



	MAPECOAT ACT 196	GENERIC ENAMEL WALL PAINT
Durability	5	3
Bacteria resistance	5	0
Washability	5	4
Resistance to disinfection agents	5	1
Hard-wearing resistance	4	3

Mapei and Sustainability

Mapei is committed to safeguarding the environment by using energy and resources in the most sustainable way possible, reducing the level of waste and developing products which are safe for both users and installers.

Mapei's fundamental commitment is to offer the best and most innovative solutions to help design and construct in a sustainable way, backed up by clear, **transparent information and communication**.

Mapei technology

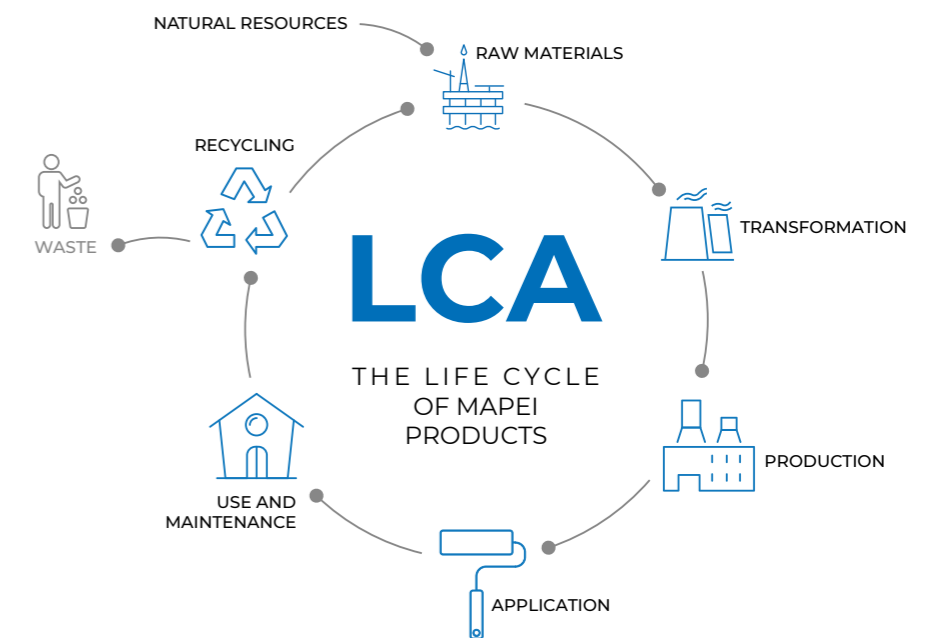
Mapei developed the concept of **Green Innovation** and has applied it to all those products which have other characteristics to improve comfort in the areas where they are applied and safeguard the health of users. Real technological objectives you will only find in Mapei products.



Certified sustainable products

EPD's (Environmental Product Declarations) are reports written according to international standards (ISO 14025 and EN 15804) which document the effect a product has on the environment during its entire life cycle, measuring the effects using standardised LCA (Life Cycle Assessment) methods.

An **analysis of the life cycle of a product**, therefore, is an **evaluation of the environmental impact** of the product **during all the various phases of its life**: from extraction of the raw materials that make up the formula, to their transport to the production plant, to the production cycle, to its packaging, to waste materials, to transporting the finished product to the distributor and its final disposal.



Mapecoat ACT 021 & Mapecoat ACT 196 have EPD certification and comply with **ISO 14025** and **EN 15804** international standards

Since 2016 Mapei has been publishing EPD's for their products through EPD International. EPD's help architects, design engineers and other buyers have a better understanding of a product's **sustainability** characteristics and its **impact on the environment**. The most widely used certification protocols for sustainable buildings, such as **LEED** and **BREEAM**, have set out specific requirements for constructions and construction products according to LCA methods. Also, since **GPP** (Green Public Procurement) is now mandatory for public tenders in various EU countries, including Italy, architects and "green" public buyers are requiring **products that comply with international standards on sustainability**.



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