

C I M E N T O®

**Flooring
Technical Information**

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1. Product description

CIMENTO® flooring panels have a multi-layered base, to which a cement finish is applied.

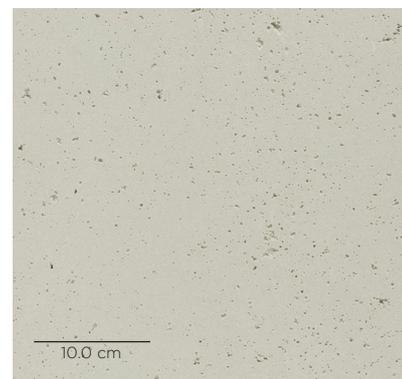
All treaded surfaces of **CIMENTO®** flooring panels are treated with a high-strength polymer compound that:

- Protects the surface from stains
- Facilitates cleaning
- Increases resistance to scratching

Thanks to its unique characteristics such as colour, porosity, roughness, etc., the **CIMENTO®** finish creates the typical visual appearance of exposed concrete (photo 1), while maintaining the ease of processing and typical installation of wooden panels.

Ranked class A+ in terms of volatile organic compounds (VOC) emissions, **CIMENTO®** flooring is compatible with a healthy environment.

CIMENTO® is a unique patented product, designed by our in-house research and development laboratory.



CIMENTO® surface structure
Colour CI02 - Natural

2. Intended use

The flooring panel is intended for use in interior areas exclusively for foot traffic. To preserve **CIMENTO®** flooring's aesthetic and functional conditions as long as possible, we recommend you apply the methods and precautions of use generally followed for wooden flooring.

Any use other than those described here or contrary to the nature of the panel, releases the manufacturer from any civil and criminal liability.

Please see below for technical details for design. For more information or to request catalogues and/or samples, please use the contact page at www.cimento.tech.

3. Characteristics of **CIMENTO®** floor panels

CIMENTO® panels are:

- unique: each panel is unique, so any colour or finish irregularities should be considered intrinsic characteristics of the product, making it even more precious. Because **CIMENTO®** is a natural aggregate, each piece is unique and unrepeatable
- A variety of colours are available, including custom colours
- Ease of machining: **CIMENTO®** floor panels are easy to cut, bore, cut and, more generally, machine using the same techniques and equipment used for machining wood
- Ease of Installation: just use ordinary wooden floor adhesive to lay **CIMENTO®** flooring
- Finish: **CIMENTO®** panels are made in standard or custom sizes, according to the design specifications
- Reduced specific weight

4. CIMENTO®: Composition

CIMENTO® finish has been designed and developed entirely by our technicians, composed of a thin mixture (approximately 2.5 mm), with over 90% natural calcareous aggregate with a selected graded sands, cementitious binder and polymeric additives.

The mixture can be mass-pigmented to create shades and colours different from those typical of semi-finished with Portland cement clinker products.

5. Production method

Manufacturing of the panels involves a workflow based on constant synergy between different professionals and highly technological instrumentation.

To optimise the production process and quality monitoring of the finished product, all phases are done in house, from design through production to final finishing.

To ensure maximum geometric and dimensional precision, processing for wooden panels is always done using electrical tools and CNC machining centres. The cementitious mixtures are prepared and applied on the panels by highly experienced professionals.

After maturation, all the panels are finished according to the design specifications and then are surface treated with the specific flooring protective system.

6. Available bases

CIMENTO® can be applied to different types of base. For floor panels, the following bases are available in stock:

- MULTILAYER, thickness: 11 mm
- MULTILAYER with CIMENTO® finish, thickness: 14 mm
- MULTILAYER, thickness: 16 mm
- MULTILAYER with CIMENTO® finish, thickness: 19 mm

Please contact our sales office if you wish to use bases of different thicknesses or different materials.

7. Available colours

CIMENTO® panels are available in six standard colours:



CIP01 - WHITE



CIP02 - NATURAL



CIP04 - LIGHT GREY



CIP05 - ANTHRACITE



CIP06 - BLACK



CIP010 - COOL GREY

Other colours are available on request; please contact the **CIMENTO®** sales office.

Both standard and custom colours are created using natural oxide pigments, giving them high colour stability to light.

N.B.: Given flooring's natural tendency to get dirty with dust and as a result of walking, light and dark colours can show the dirt or signs of wear more than others.

8. Surface treatments

CIMENTO® flooring panels are surface treated with a protective product that:

- Protects the surface from stains
- Facilitates cleaning
- Increases resistance to scratching

However, the surface treatment does not affect the physical appearance of **CIMENTO®**.

9. Dimensions and weights

CIMENTO® flooring panels are available in different standard sizes or cut to size at the customer's request, according to the design specifications.

11 AND 16 MM CIMENTO® MULTILAYER PANELS - STANDARD DIMENSIONS		
Dimensions (mm)	Panel weight with 11 mm multilayer base (kg)	Panel weight with 16 mm multilayer base (kg)
600x600	3.6	4.3
600x900	5.4	6.5
900x1200	10.8	13.0

Average density of 11 mm / 16 mm thick multilayer panel: between 5 and 7 kg/m²

The average density of the **CIMENTO®** finish, excluding base: 4.5 kg/m²

10. Physical-mechanical treatments

The table below shows the main physical and mechanical characteristics of two available types of standard bases and **CIMENTO®** finish:

ELEMENT	PROPERTIES	TEST METHODS	UNIT OF MEASURE	PANEL 11MM	PANEL 16mm
MULTILAYER BASE (values provided by the manufacturer)	Density	EN 323	Kg/m ³	400-450	400-450
	Resistance to longitudinal bending	EN 310	N/mm ²	28	27
	Elastic modulus to longitudinal bending	EN 310	N/mm ²	3200	2400
	Resistance to transversal traction	EN 310	N/mm ²	24	35
	Elastic modulus to transversal traction	EN 310	N/mm ²	3000	4100
	Moisture content	EN 322	%	10 ± 2	
	Release of formaldehyde	EN 717/2	mg/100g	<3.5 (classe 1)	
	Reaction to fire	EN-13501-1	Class	D-s2,d0	D-s2,d0
MULTILAYER BASE WITH CIMENTO® FINISH (values based on tests by external laboratories)	Density (finish thickness 2:2.5mm)	-	Kg/m ²	10.0	12.0
	Surface resistance to cold liquids	Uni EN 12720:2013	Class CEN/TS 16209	C	
	Scratch resistance	EN 15186:2012	Load (N)	0,9	
			Class CEN/TS 16209	D	
	Resistance to abrasion	EN 15185:2011	Initial point (rpm)	90	
			Class CEN/TS 16209	C	
	Surface hardness (pencil hardness)	UNI 10782:1999	Class	H	
	Brinell hardness	EN 1534:2010	Kg/mm ²	6.1	
Impact resistance (large diameter ball)	EN 438-2:2016	H (mm)	600		
		Imprint diameter (mm)	6.7		

11. CIMENTO® handling and storage

When handling the panels, consider their low elasticity, ensuring they are always supported evenly to prevent cracking of the **CIMENTO®** surface finish.

Protect the edges from impacts to prevent chipping.

Protect the panels from contact with staining substances, blades and sharp objects that might damage the **CIMENTO®** finish.

Store the panels in a dry place, on a horizontal surface with even base along the entire surface.

12. On-site panel machining and precautions

CIMENTO® flooring panels are intended for use indoors solely for pedestrian traffic; since it has a composite structure with a wooden multilayer base, the screed (pre-existing flooring) on which the panels are laid must be dry to avoid affecting its dimensional stability.

As explained in the instructions for laying wooden floors (parquet), if installed on a cement screed or other porous and breathable medium, the moisture content of the material (water content) must be less than 2%.

Additionally, the environment in which the panels are to be installed must have average a sufficiently stable relative humidity of between 35 and 65%.

Installation must be done by personnel specialised in the installation of wood floors, anchoring the panels to the underlying structure (screed or pre-existing flooring) using specific epoxy or polyurethane elastic adhesives, and following the directions in the technical sheets. We do not recommend grouting to avoid compromising the hygrometric balance between the underflooring, panel and environment and to avoid entirely limiting the possibility of expansion of **CIMENTO®** panels.

To preserve **CIMENTO®** flooring's aesthetic and functional conditions as long as possible, we recommend you apply the methods and precautions of use generally followed for wooden flooring. In particular, remember that the surface may be subject to denting and scratching due to knocks and rubbing of objects, concentrated loads on small surfaces such as ladders, metal shelving, small objects such as nails or pebbles on the soles of shoes.

We strongly recommend you apply suitable protections on the feet of furniture, such as rubber or felt pads, depending on movement requirements. As for wooden floors, we recommend you take appropriate precautions during use and cleaning to prevent any water from filtering into the joints.

CIMENTO® panels can be easily machined with tools usually used for wood, though given the presence of the cementitious layer, we recommend using appropriate blades, disks, abrasives etc. (e.g. cemented carbide or diamond blades).

Useful tools:

- Cutting: circular table saw or hand circular saw with track, jigsaw.
- Sanding: fine sandpaper or sanding pad
- Drilling: cemented carbide tips suitable for masonry/wood. The panel to be drilled must be supported around the drilling point on a uniform surface (e.g. a wooden surface)
- Opening: crown saw drill bit or jigsaw

13. Maintenance

The surface of the **CIMENTO®** panel is treated with a protective system that prevents dirt from penetrating in the material, whether dry, wet or greasy, and facilitates cleaning operations. Still, the presence of both smooth and porous areas, a characteristic specific to **CIMENTO®** panel surfaces requires a few simple precautions during ordinary cleaning operations.

For routine maintenance and effective removal of deposits, we recommend the following operations in this order:

- Remove all dry deposits with vacuum cleaner equipped with a soft bristle brush, in order to remove dust is from both smooth and porous surfaces.
- Wipe the surface with a dry or damp microfibre cloth, then dry with another clean and dry microfibre cloth to avoid streaks.
- Should the surface come into contact with staining substances, wipe the area with a cloth dampened with ammonia or similar product (avoiding degreasers that require abundant rinsing), then wipe with a dry cloth. Do not use harsh acidic solvents or abrasive agents.
- 90% ethyl alcohol can be used for stains that cannot be removed with the ammonia solution, but only in small quantities: Dampen a microfibre cloth with alcohol, wipe the stained surface, dry quickly with a clean, dry microfibre cloth.

Should the deposit be too tough to be removed and the methods described above are not sufficient, or if the stain is difficult to treat due to a rough surface, we recommend you use a low-pressure steam cleaner, directing the steam jet on the stained area and scrubbing the surface with a clean microfibre cloth.