CERAMICA SANITARIA

"Ceramic means each object, artificially made by man, constructed with inorganic, non metallic raw materials, moulded at room temperature and subject to warm consolidation."

[M. Korach]

This is a definition of ceramic that basically characterizes it. From a technical point of view it is clay, feldspar, quartz sand, iron oxides and alumina. With this composition, the ceramic is formed by fine crystals and flattened hydrous aluminosilicates; furthermore, the forms of the crystals, confer to the clay used for the production of ceramics a certain plasticity, which facilitates the production process. Such materials allow during firing the sintering of the ceramic body and the matt vitrification of the coating.
In sanitary ceramics two kinds of materials are used: Vitreous China and Fine Fireclay, the production processes (gluing, drying, glazing and firing) and the glazing used are the same for both materials, what changes are the features of the ceramic support: Vitreous China has an inferior absorption to 0,5% and an important pyroclastic deformation during the firing process at 1250°C, while Fine Fireclay has an inferior absorption to 9% and less pyroclastic deformation. These features define the use of the two materials: objects with specific functional peculiarities (Wc, bidet and washbasins) and large objects (washbasins, console and shower plates).
The technical features of the products are in compliance with the regulations UNI 4543 concerning the resistance of the ceramic material and the glaze to chemical attacks and mechanical solicitations. The tests simulate chemical and physical mechanical actions realized on the samples withdrawn from a finished sanitary unit or when required on specially prepared samples.
As far as functional testing is concerned, the regulations are: le UNI EN 997, 14688, 14528, 14527, 13407 and 14296 respectively for wc, washbasins, bidet, shower plates, urinal and wash troughs.

CERAMIC | Cleaning and maintenance

As a rule, always use a microfiber cloth to dry the surfaces so as to prevent hard water spots from forming. Always comply with the action times specified on the packaging of the detergents and do not use different products at the same time. It is advisable not to use any type of *abrasive detergent*, *alcohol-based detergent* or *strong acidic/alkaline detergents* (e.g., detergents containing *hydrofluoric acid* or *basic solutions* such as *caustic soda*), *nitrous solvents* and *acetone*.
To make sure that ceramic retains its properties unaltered over time, wash it on a regular basis with water and a non-abrasive bleach-based detergent (gel, cream or spray), using a soft sponge to remove soap residues and prevent the formation of limescale. While cleaning the interior of the toilet bowl, always leave the seat and cover raised to prevent the fumes from damaging the surface of these parts. Limescale deposits may be removed with white vinegar or other vinegar based products.
For **White**, **Coloured**, **Matte** and **Glossy** ceramic ware, cleaning procedures and products are the same.

Colors available only for:

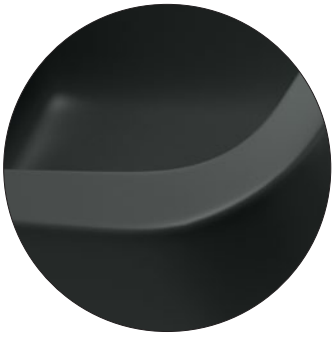
ACQUAGRANDE, **BOLL**, **BONOLA** basins, **DIP**, **DOPPIO ZERO**, **FONTE**, **MINIWASH**, **MONOROLL**, **MONOWASH**, **NUDA**, **PASS**, **ROLL**, **SALTODACQUA**, **TWIN**, **WATER DROP** shwer trays and **BRICK** shelf



White
pantone White C - RAL 9016



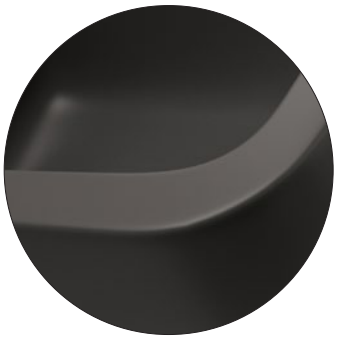
Black
pantone Black C - RAL 9017



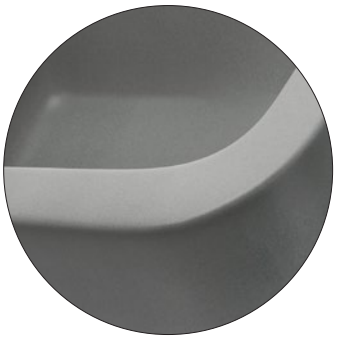
Antracite matt
pantone 433 M - RAL 7016



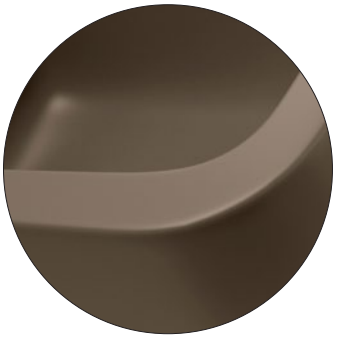
Milky White matt
pantone White M AL 9003



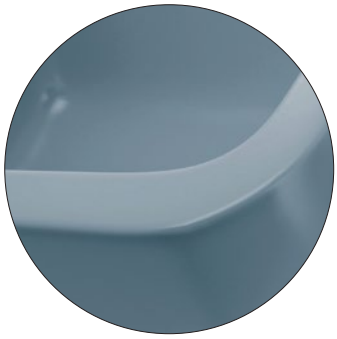
Graphite matt
pantone Black M - RAL 9004



Lava Grey matt
pantone 424 M - RAL 7037



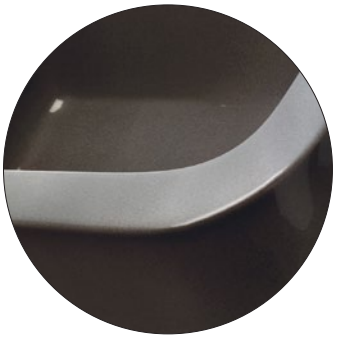
Fango matt
pantone 7531 M - RAL 7006



Nuvola matt
pantone 5415 M - RAL 3014



Bronzo iridescent
pantone 411 M - RAL 8011



Ghisa iridescent
pantone 4005 M - RAL 8019

The colours are for guidance only. Colours may vary when applied to different materials and be subject to variations through time. The Pantone and RAL codes refer to the colours and not their real effect on materials. Ceramica Flaminia reserves the right to modify the tones and to widen therange of the colours illustrated without any prior notice.

It is a compound of hydrated alumina, titanium dioxide and polyester resin, covered by a thick layer of resin ISo-NPG which grants shine, resistance, impermeability and anti-scale features.
Pietraluce® is resistant to acids, solvents and to liquid cleaning products; it has anti-bacterial properties, it is non-flammable and self-extinguishing. Scratches or stains of cigarette can be removed by a normal polishing paste. Small repairs of chippings or deep cuts can be don e by using our maintenance kit. Pietraluce® can be cut and drilled with normal steel tools.

TECHNICAL SHEET MATERIAL PIETRALUCE®

The laboratory test results.
Pietraluce® is a compound of hydrated alumina, titanium dioxide and polyester resin .
Density: 1,8 g/cm 3 approx.
Water absorption: 0,17% Gel-Coat, ASTM D 570, manufactured article less than 0,75%.
Thermal shock resistance: unchanged after 25 cycles from -20°C to +80°C.
Results from tests performed by the Plastics Testings Laborator y "Giulio Natta" Institute of Industrial Chemistry - Polytechnic - Milan
Certificate N° 48/80 of 18.12.1980 - Prof. Dante Pagani
1) Abrasion resistance (NeMA LD 3-1975): is above 2000 cycles.
2) High temperature resistance (NeMA LD 3-1975): the container, containing molten wax at 180°C, causes slight colour variations on the surface.
3) Staining resistance (ANSI Z 124.1-1974): after 14 hrs. following spots are easily removed: black shoe po lish, blue washable ink, lipstick, tomato sauce, coffee. Black hair dye and 1% iodine alcoholic solution are removed after 20 minutes.
4) Chemical resistance (ANSI Z 124.1-1974): after a lapse of 14 hrs. the following chemicals do not leave a ny visible sign: ethyl alcohol, 10% citric acid, 6,6% urea, 3% hydrog en peroxide, hypochlorite and acetone.
The high octane gasoline leaves a visible trace unless it is re moved within 20 minutes.
5) Resistance to washing (ASTM D 2486): 20000 cycles with a nylon brush and a 5% commercial solution of a liquid cleansing agent leave slight traces.
6) Resistance to accelerated ageing: after 200 hrs. exposure to a 300W uV lamp there are no surface alterations.
7) Scratch resistance: the charge requested for scratching with "Taber" with diamond point is 190 g.
Certificate N° 252/1982 of 6.7.1982 - Prof. Dante Pagani
1) Inflammability resistance (ASTM D 635): samples are self-extinguishing. The flame is extinguished before the first reference mark.

PIETRALUCE | Cleaning and maintenance

To maintain the gloss of the material over time, avoid the use of abrasive or scratching products and detergents. Soft cloths and liquid detergents should be used to clean this materials. Pietraluce® is an antibacterial, anti-scale material, however, if any hard water spot is formed, it can always be removed with normal limescale removers. If any stains are formed or the surface loses its gloss over time, it can be treated with a car polish and, depending on its conditions, also with paint brightening products.
Special stains, such as cigarette stains, can be removed with extra fine sandpaper (1000 grit as a minimum) and the portion that turns dull can be revived with a normal polish. To speed up the job, a polishing machine may be used, running at low speed (2000 rpm as a max.), with a disk covered with lambskin.
If the need arises, you can purchase a maintenance/repair kit (art. **KIT84**) to repair chips or deep scores in the surface of wooden products.

PIETRALUCE | Colours and Finishes

FLAMINIA.

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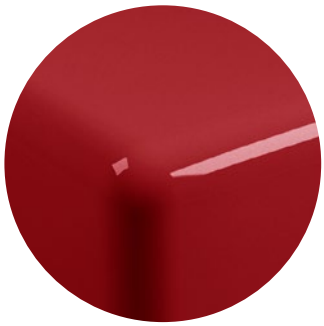
White
pantone White C - RAL 9016



Black
pantone black C - RAL 9017



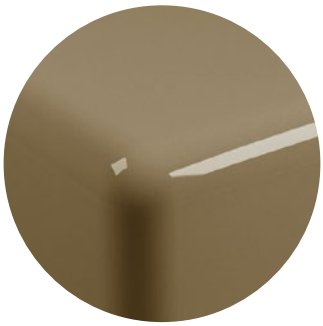
Marin Blue
pantone 2955 C - RAL 5003



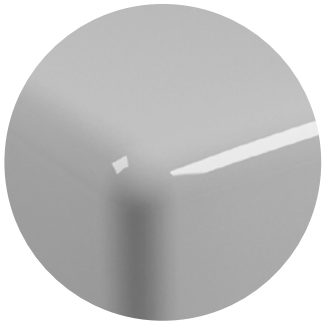
Red
pantone 7427 C - RAL 3011



Beige
pantone 7500 C - RAL 1015



Sand
pantone 7503 C - RAL 1019



Grey
pantone cool gray 2 C - RAL 7047



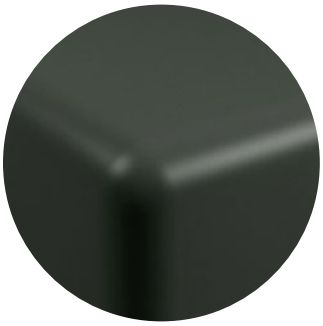
Light Blue
pantone 290 C - RAL 5024



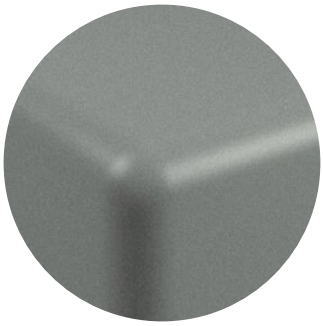
Pink
pantone 503 C - RAL 3015



Milky White matt
R pantone White M AL 9003



Graphite matt
pantone black M - RAL 9004



Lava Grey matt
pantone 424 M - RAL 7037