

TECHNICAL DATA

“PERLAGE” Series-White Body Wall Tiles

1. Technical Features

UNI EN 14411 - Annex L –Dry-pressed ceramic tiles - GROUP BIII GL

	Technical features	Norms	Required standards	Average
REGULARITY AND QUALITY SURFACE CHARACTERISTICS	LENGTH AND WIDTH (The deviation, in percent, of the average size for each tile (2 or 4 sides) from the PERLAGE size (W))	UNI EN ISO 10545-2	± 0,6 %	IN ACCORDANCE
	THICKNESS		± 5 %	IN ACCORDANCE
	STRAIGHTNESS OF SIDES		± 0,3 %	IN ACCORDANCE
	RECTANGULARITY		± 0,5 %	IN ACCORDANCE
	SURFACE FLATNESS		+ 0,5 % , -0,3% (Curvatura centro e spigolo) ± 0,5 % (svergolamento)	IN ACCORDANCE
	SURFACE QUALITY		A minimum of 95% of tiles shall be free from visible defects that would impair the appearance of a major area of tiles	IN ACCORDANCE
PHISICAL CHARACTERISTICS	WATER ABSORPTION	UNI EN ISO 10545-3	10 % < Eb (<20 %)	IN ACCORDANCE
	BREAKING STRENGTH (S) – MODULUS OF RUPTURE (R)	UNI EN ISO 10545-4	S > 600 N R > 15 N/mm ²	IN ACCORDANCE
	CRAZING RESISTANCE	UNI EN ISO 10545-11	REQUIRED	IN ACCORDANCE
CHEMICAL CHARACTERISTICS	RESISTANCE TO HOUSEHOLD CHEMICALS AND SWIMMING POOL SALTS	UNI EN ISO 10545-13	Class GB min.	RESISTANT
	RESISTANCE TO LOW CONCENTRATIONS OF ACIDS AND ALKALIS		Manufacturer to state classification	RESISTANT
	RESISTANCE TO STAINING	UNI EN ISO 10545-14	Minimum Class 3	IN ACCORDANCE

2. Sizes, Finishings:

2.1 Sizes: 25X45

2.2 Colours: 6 (Perlage Bianco, Perlage Avorio, Perlage Lilla, Perlage Mela, Perlage Ciliegia, Perlage Nero)

2.2 Finishings: Natural

3. Process features

The PERLAGE series is realized in porcelain stoneware by dry pressing of a mix of spray-dried bodies obtained from precious natural raw materials. The obtained substrate is later silk-screen printed (decorated) and fired at over 1100°C, temperature needed to reach the sintering necessary to make the product frost-proof, non-absorbing and₁

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GRUPPO FIRE - Fire S.R.L. Sede in Bologna Piazza Calderini N.5

resistant to chemical attacks.

4. In accordance with standards



PERLAGE is a UNI/Keymark certified material, ensuring compliance, as far as the first choice is concerned, with the requirements specified in the international standards UNI EN 14411 appendix G and ISO 13006, for the surface chemical and physical features; the compliance is extended to all commercial choices for the safety features connected with the CE marking. PERLAGE is also CCC certified.

The Quality management system - implemented by the company and certified according to the standard UNI EN ISO 9001:2008 - ensures a steady compliance.



5. Environmental Certification

5.1 LEED Rating System



PERLAGE guarantees the following LEED credits:

Credit SS 7.1/7.2 - Heat Island Effect: PERLAGE does not increase the temperature of city areas compared to country areas (No heat island effect), as the solar reflectance index SRI is ≥ 29 . PERLAGE is thus particularly suitable for outdoor roofed and non-roofed installations.

Credit EA 1 - Optimize energy performance: heat conductivity λ of PERLAGE ranges between 1 and 1.3 Watt/(m·K). Therefore PERLAGE is provided of very good insulating performance.

Credit EQ 4.2 - VOC content: PERLAGE does not emit VOC (Volatile Organic Compounds), as certified by qualified external laboratories.

Credit MR 1.2 - Building re-use: PERLAGE can contribute to this credit by coating existing floors and walls, renovating surfaces and structures avoiding their demolition and rebuilding.

Credit MR 2.1-2.2 - Management of building wastes: PERLAGE can contribute to this credit, as all ceramic tiles can be totally considered as recovered materials to be used as aggregates for different filling operations (substrates, embankments, etc.).

Credit MR 5.1-5.2 – Regional materials: 65% of the materials used to produce PERLAGE comes from quarries located within 500 miles from its production headquarters.

TECHNICAL DATA

“PERLAGE” Series – Porcelain Floors

1. Technical Features

UNI EN 14411 - Annex G –Dry-pressed ceramic tiles with low water absorption - GROUP B1aGL

	Technical features	Norms	Required standards	Average
REGULARITY AND QUALITY SURFACE CHARACTERISTICS	LENGTH AND WIDTH (The deviation, in percent, of the average size for each tile (2 or 4 sides) from the PERLAGE size (W))	UNI EN ISO 10545-2	± 0,6 %	IN ACCORDANCE
	THICKNESS		± 5 %	IN ACCORDANCE
	STRAIGHTNESS OF SIDES		± 0,5 %	IN ACCORDANCE
	RECTANGULARITY		± 0,6 %	IN ACCORDANCE
	SURFACE FLATNESS		± 0,5 %	IN ACCORDANCE
	SURFACE QUALITY		A minimum of 95% of tiles shall be free from visible defects that would impair the appearance of a major area of tiles	IN ACCORDANCE
PHISICAL CHARACTERISTICS	WATER ABSORPTION	UNI EN ISO 10545-3	Eb ≤ 0,5 %	IN ACCORDANCE
	BREAKING STRENGTH (S) – MODULUS OF RUPTURE (R)	UNI EN ISO 10545-4	S > 1300 N R > 35 N/mm ²	IN ACCORDANCE
	CRAZING RESISTANCE	UNI EN ISO 10545-11	REQUIRED	IN ACCORDANCE
	RESISTANCE TO FROST	UNI EN ISO 10545-12	REQUIRED	IN ACCORDANCE
CHEMICAL CHARACTERISTICS	RESISTANCE TO HOUSEHOLD CHEMICALS AND SWIMMING POOL SALTS	UNI EN ISO 10545-13	Class GB min.	RESISTANT
	RESISTANCE TO LOW CONCENTRATIONS OF ACIDS AND ALKALIS		Manufacturer to state classification	RESISTANT
	RESISTANCE TO STAINING	UNI EN ISO 10545-14	Minimum Class 3	IN ACCORDANCE

2. Sizes, Finishings:

2.1 Sizes: 33.3X33.3

2.2 Colours: 6 (Nero, Lilla, Mela, Ciliegia, Avorio, Bianco)

2.2 Finishings: Natural

3. Process features

The PERLAGE series is realized in porcelain stoneware by dry pressing of a mix of spray-dried bodies obtained from precious natural raw materials. The obtained substrate is later silk-screen printed (decorated) and fired at 3

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GRUPPO FIRE - Fire S.R.L. Sede in Bologna Piazza Calderini N.5

over 1200°C, temperature needed to reach the sintering necessary to make the product frost-proof, non-absorbing and resistant to chemical attacks.

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