

PRODUCT CERTIFICATE

Finished Product Laboratory

ISO 13006-10545

Equivalent to the Brazilian Norm NBR 15463/NBR 13818

Dry-pressed ceramic tiles with low water absorption $E_b \leq 0,5\%$

PRODUCT: NORD RIS HEXA 20X20 Mate
Bold

PRODUCT: PORCELAIN TILE

SIZE: 20X20

SIZE: 27117E

LINE: NORD



Characteristics	Test as per	Results
Physical		
Water Absorption (%E)	ISO 10545-3 NBR 13818 - annex: B (E ≤ 0,5%)	0,5
Modulus of Breaking Strength (MPa)	ISO 10545-4 NBR 13818 - annex: C (NBR 15463 Average: ≥ 37)	37
Breaking Load (N)	ISO 10545-4 NBR 13818 - annex: C (NBR 15463 Average: ≥ 1500)	1500
Moisture Expansion (mm/m)	ISO 10545- 10 NBR 13818 - annex: J	0,1
Resistance to Deep Abrasion (mm3)	NA	NA
Crazing Resistance	ISO 10545-11 NBR 13818 - annex: F	Resist
Frost Resistance	ISO 10545-12 NBR 13818 - annex: M	NA
Resistance to Thermal Shock	ISO 10545-9 NBR 13818 - annex: L	Resist
Chemical		
Resistance to Stains		
Green staining agent in light oil	ISO 10545-14 NBR 13818 - annex: G (Minimum: 3)	5
Red staining agent in light oil		4
Iodine		5
Olive Oil		5
Chemical Resistance		
Hydrochloric Acid 3% (v/v)	ISO 10545-13 NBR 13818 - annex: H (Minimum: B)	A
Potassium Hydroxide 30g/L		B
Citric Acid 100g/L		A
Lactic Acid 5% (v/v)		A
Hydrochloric Acid 18% (v/v)		A
Potassium Hydroxide 100g/L		B
Ammonium Chloride 100g/L		A
Sodium Hypochloride 20mg/L		A

Coefficient of Friction		
Dry Surface	NBR 13818 - annex: N Method: TORTUS III (Value $\geq$ 0,4)	0,5
Wet Surface		0,4
Wet Surface	ANSI A137. Section 9.6 (Minimum Average Value 0,42)	0,6
Local of Use		
Cl - Commercial Light RE - Residential FA - Facade		
Recommendation for Application		

For information on application recommendations, refer to the virtual specifier: <http://especificadorvirtual.portobello.com.br>
Tijucas, 24/10/2018

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