



**technical characteristics**

technical characteristics	reference standard	required values	TIVOLI producer's value
water absorption (E)	ISO 10545-3	≤ 0,5%	according to
breaking strength (S)	ISO 10545-4	thickness ≥ 7,5 mm ≥ 1300 N thickness < 7,5 mm ≥ 700 N	according to
bending strength (S)	ISO 10545-4	≥ 35 N/mm <sup>2</sup>	according to
resistance to abrasion PEI	ISO 10545-7	according to producer's	peI <b>IV</b>
thermal shock resistance	ISO 10545-9	no sample must show visible defects	according to
frost resistance	ISO 10545-12	resistant	resistant
dynamic coefficient of friction	ANSI 137.1.2012 (DCOF)		> 0,42
size characteristics	ISO 10545-2	length and width thickness wedging flatness	± 0,6% ± 5,0% ± 0,6% ± 0,5%
linear thermal expansion coefficient	ISO 10545-8	test method available	≤ 7 x 10 <sup>-6</sup> °C <sup>-1</sup>
resistance to chemicals	ISO 10545-13	according to producer's	<b>GHA</b>
stain resistance	ISO 10545-14	Classe ≥ 3	<b>Classe 5</b>

Following the EN 14411 (ex ISO 13006) norm and test cases UNI ISO 10545 appendix G for ceramic tiles dry pressed with low water absorption E ≤ 0,5% group B1a.

**1/2 BROKEN JOINT NOT RECOMMENDED.  
MANUFACTURER RECOMMENDS 1/3 OR LESS STAGGERED SPACING.**

**IMPORTANT**

Please note that fixing in a 50% staggered configuration is not recommended. We suggest the following fixing configurations for these ceramic materials:

**NO 50%**

**YES 15%**

**HAPPY FLOORS**

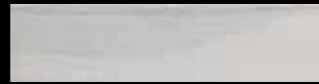
www.happy-floors.com



TIVOLI

PORCELAIN





BIANCO 8"x32"



BIANCO 12"x24"



2"x2" MOSAIC (12"x12" SHEET)



1.25"x4" MOSAIC (12"x12" SHEET)



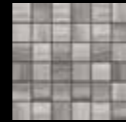
BULLNOSE 3"x12"



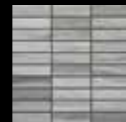
GRIGIO 8"x32"



GRIGIO 12"x24"



2"x2" MOSAIC (12"x12" SHEET)



1.25"x4" MOSAIC (12"x12" SHEET)



BULLNOSE 3"x12"



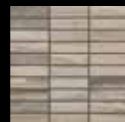
DORATO 8"x32"



DORATO 12"x24"



2"x2" MOSAIC (12"x12" SHEET)



1.25"x4" MOSAIC (12"x12" SHEET)



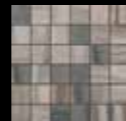
BULLNOSE 3"x12"



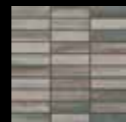
FORESTA 8"x32"



FORESTA 12"x24"



2"x2" MOSAIC (12"x12" SHEET)



1.25"x4" MOSAIC (12"x12" SHEET)



BULLNOSE 3"x12"

