

Independent Test to TopCer Unglazed Porcelain Tiles									
Norms EN 14411/ISO 13006 Group Bla									
Dimensions surface quality	ISO 10545-2	10 X 10 Smooth Texture			CO40868(ITC)				
Surface quality	ISO 10545-2	10x10 Smooth Texture			CO40869(ITC)				
Water absorption	ISO 10545-3	Boiling Method Boiling Method Vacuum Method	Values		CO40870 (ITC) 1.5.2299/08 (CTCV) 1.5.2300/08 (CTCV)				
			0,1 % 0,06% 0,04%						
	ASTM C 373	Boiling Method	0,02%		1.5.2301/08 (CTCV)				
Breaking Strenght Modulus of rupture	ISO 10545-4	10X10 - 8 mm 10X10 - 8 mm 10X10 - 8 mm 10X10 - 8 mm 15X15 - 8mm 15X15 - 8mm 15X15 - 8mm 15X15 - 8mm 15X15 - 12mm 7,5X15 - 8 mm 7,5X15 - 8 mm 7,5X15 - 8mm 10X30 - 8,5 mm 30X30 - 8,5 mm 30X30 - 8,5 mm 30X30 - 8,5 mm	Values		1911/09 (CTCV) CO40871 (ITC) 2533/08 (CTCV) 4983/10 (CTCV) 3056/09 (CTCV) 2534/08 (CTCV) 5225/10 (CTCV) 2535/08 (CTCV) 3055/09 (CTCV) 2536/08 (CTCV) 5224/10 (CTCV) 3057/09 (CTCV) 2110/09 (CTCV) 2537/08 (CTCV) 4986/10 (CTCV)				
			2078 1808 1967 1959 1955 1941 2228 4456 2093 2178 2160 2194 2003 2219 2254	56,3 52,0 51,5 51,2 52,0 52,6 60,8 56,2 60,0 58,4 56,8 55,3 51,3 56,5 55,7					
			Impact resistance	ISO 10545-5		10x10 Smooth Texture			CO40872(ITC)
			Resistance to deep abrasion	ISO 10545-6		10x10 Smooth Texture			CO40873(ITC)
			Détermination de la Tenue au Choc Lourd	UPEC ANNEXE 6		6601 - 12mm			1.5.1442/2010 (CTCV)
			Resistance au Roulage	UPEC ANNEXE 5		6601 - 12 mm			1.5.1443/2010 (CTCV)
			Scratch hardness of surface according to MOHS	EN101/176		10x10 Smooth Texture			1826/97 (DAR)
			Coefficient of linear thermal expansion	ISO 10545-8		10x10 Smooth Texture			CO40874 (ITC)
			Thermal shock resistance	ISO 10545-9		10x10 Smooth Texture			CO40875 (ITC)
						10x10 Smooth Texture			3054/09 (CTCV)
						10x10 Smooth Texture			2533/08 (CTCV)
						10x10 Smooth Texture			4983/10 (CTCV)
			Moisture expansion	ISO 10545-10		10x10 Smooth Texture			CO40876(ITC)
			Frost resistance	ISO 10545-12		10x10 Smooth Texture			CO40877(ITC)
						10x10 Smooth Texture			3054/09 (CTCV)
						10x10 Smooth Texture			2533/08 (CTCV)
						10x10 Smooth Texture			4983/10 (CTCV)
Chemical resistance	ISO10545-13	10x10 Smooth Texture			CO40878 (ITC) 1221/02 (CTCV) 1224/02 (CTCV) 1437/00 (CTCV)				
Stain Resistance	ISO 10545-14	10x10 Smooth Texture			CO40879(ITC) 1437/00 (CTCV)				
	(Ramp) DIN 51 097 by German Institutes			Values					
				Angle	Category				
		10x10 Smooth Texture		19°	B		72529901-001 (Säure-flisner)		
		15x15 Smooth Texture		14,5°	A		KP17 - 2/08 (FH - Koblenz)		
		15x15 Rubber dies		19°	B		72529906-001 (Säure-flisner)		
		30X30 Smooth		12,8°	A		KP 38 - 4/08 (FH - Koblenz)		
		30X30 Smooth		14,0°	A		KP 38 - 3/08 (FH - Koblenz)		
		30X30 Smooth R		21,5°	B		KP 107 - 3/10 (FH - Koblenz)		
10x10 Round Studs (RC)		26°	C	5432/2/92 ((Säure-flisner)					

SLIP RESISTANCE Bare-footed areas	(values explanation)	10x10 Square Studs (SS1 mm)	29,5°	C	KP 107 - 2/10 (FH - Koblenz)	
		15x15 Riven Texture(RT)	22°	B	1323/96 (Alpha Labor)	
		15x15 Square Studs (SS)	18°	B	62410402 001(FEV)	
		15x15 Square Studs (SS1 mm)	35	C	KP 107 - 1/10 (FH - Koblenz)	
	(Ramp) DIN 51 097 By Ceram UK	(values explanation)	.	Angle	Category	
			10x10 Smooth Texture	19.0°	B	(086579)-30001 CERAM - UK
			15x15 Smooth Texture	18.0°	B	(086579)-30000 CERAM - UK
			15x15 Round Stud (RC)	30.0°	C	(086579)-29999 CERAM - UK
			15x15 Square Studs (SS)	30.0°	C	(086579)-29998 CERAM - UK
			15x15 Diamond Studs (DD)	30.0°	C	(086579)-29997 CERAM - UK
			15x15 Riven Texture (RT)	30.0°	C	(086579)-29996 CERAM - UK
	SLIP RESISTANCE Areas with footwear	(Ramp) DIN 51130	10 X 10 Plain Finish (smooth)	10,9°	R10	KP 256 - 5/08 (FH - Koblenz)
10x10 Square Studs (SS1 mm)			21,4°	R11	KP 107 - 5/10 (FH - Koblenz)	
15 X 15 Plain Finish (smooth)			10,8°	R10	KP 17 - 1/08 (FH - Koblenz) KP 31 - 1/08 (FH - Koblenz)	
15x15 Square Studs (SS1 mm)			22,6°	R11	KP 107 - 4/10 (FH - Koblenz)	
30 X 30 Plain Finish (smooth)			8,1°	R9	KP 38 - 1/08 (FH - Koblenz) KP 38 - 2/08 (FH - Koblenz)	
BRG181 (Drainage)		(values explanation)	30X30 Smooth R	22,4°	R11	KP 107 - 6/10 (FH - Koblenz)
			15 X 15 Square Studs (SS)	23,5°	R11 (V5)	KP 256 - 3/08 (FH - Koblenz)
			15 X 15 Round Studs (RC)	24,5°	R11 (V6)	KP 256 - 2/08 (FH - Koblenz)
			15 x 15 Diamond Studs (DD)	31,1°	R12 (V7)	KP 256 - 4/08 (FH - Koblenz)
			15 X 15 Riven (RT)	28,9°	R12 (V5)	KP 256 - 1/08 (FH - Koblenz)
			.	Dry Values	Wet Values	.
SLIP RESISTANCE Areas with footwear	(pendulum) BS 7976 - 2: 2002	10 X 10 Plain Finish (smooth)	60	37	086579 - 30001 CERAM UK	
		15 X 15 Plain Finish (smooth)	60	39	086579 - 30000 CERAM UK	
		15 X 15 Round Studs (RC)	81	70	086579 - 29999 CERAM UK	
		15 X 15 Square Studs (SS)	67	54	086579 - 29998 CERAM UK	
		15 x 15 Diamond Studs (DD)	87	72	086579 - 29997 CERAM UK	
		15 X 15 Riven (RT)	61	53	086579 - 29996 CERAM UK	
Determination of slip resistance of ceramic tiles" by the Pendulum method" Determinación de la Resistencia al deslizamiento de Baldosas Cerámicas "Metodo Del Péndolo"	UNE-ENV - 12633:2003	.	Value	Valor	.	
		30 X 30 Smooth - uni color - English	25		C070363 (ITC)	
		30 X 30 Liso - monocolor - Spanish		25	C070362(ITC)	
		30 X 30 Liso molde caucho - Spanish		48	C092766(ITC)	
		15 X 15 Smooth		24	1.5.2914/09 (CTCV)	
		15 X 15 SS		57	1.5.4979/10 (CTCV)	
		15 X 15 Smooth		33	1.5.4986/10 (CTCV)	
		15 X 15 RC		56	1.5.4981/10 (CTCV)	
		15 X 15 RT		52	1.5.4980/10 (CTCV)	
		15 X 15 DD		63	1.5.4982/10 (CTCV)	
		10 X 10 Smooth uni color - English	26		C070357 (ITC)	
		10 X 10 Liso - monocolor - Spanish		26	C070356 (ITC)	
		10 X 10 Smooth granite - English	33		C070351 (ITC)	
		10 X 10 Liso pigmentada - Spanish		33	C070350 (ITC)	
		10 X 10 Smooth ruber dies - English	43		C070353 (ITC)	
		10 X 10 Liso molde de caucho - Spanish		43	C070352 (ITC)	
		10 X 10 SS Spec 1 mm - Spanish		55	C100453 (ITC)	
10 X 10 SS uni color - English	45		C070355 (ITC)			
10 X 10 SS monocolor - Spanish		45	C070354 (ITC)			
10 X 10 RT uni color - English	46		C070349 (ITC)			
10 X 10 RT monocolor - Spanish		46	C070348 (ITC)			

	10 X 10 DD color - English	49		C070361 (ITC)
	10 X 10 DD monocolor - Spanish		49	C070360 (ITC)
	10 X 10 RC uni color - English	52		C070359 (ITC)
	10 X 10 RC monocolor - Spanish		52	C070358 (ITC)