

Independent Test to TopCer Unglazed Porcelain Tiles				
Norms EN 14411/ISO 13006 - Annex G - 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	.	.	Values	.
	ISO 10545-3	Boiling Method	0,10%	C180199 (ITC)
		Boiling Method	0,10%	C181458 (ITC)
		Boiling Method	0,10%	C181452 (ITC)
		Boiling Method	0,06%	1.5.2299/08 (CTCV)
		Vacuum Method	0,04%	1.5.2300/08 (CTCV)
		Vacuum Method	0,05%	73A/2017 (CTCV)
	ASTM C 373	Boiling Method	0,02%	1.5.2301/08 (CTCV)
.	.	.	Values	.
			N	N/mm2
Breaking Strenght	ISO 10545-4	10x10 - 8mm	2278	62,9 2954/17 (CTCV)
Modulus of rupture		10x10 - 8mm	2078	56,3 1911/09 (CTCV)
		10x10 - 8mm	1808	52 CO40871 (ITC)
		10x10 - 8mm	1967	51,5 2533/08 (CTCV)
		10x10 - 8mm	1959	51,2 4983/10 (CTCV)
		15x15 - 8mm	1922	53,5 2955/17 (CTCV)
		15x15 - 8mm	1955	52 3056/09 (CTCV)
		15x15 - 8mm	1941	52,6 2534/08 (CTCV)
		15x15 - 8mm	2228	60,8 5225/10 (CTCV)
		15x15 - 12mm	4456	56,2 2535/08 (CTCV)
		7,5x15 - 8mm	2199	54,5 2958/17 (CTCV)
		7,5x15 - 8mm	2093	60 3055/09 (CTCV)
		7,5x15 - 8mm	2178	58,4 2536/08 (CTCV)
		7,5x15 - 8mm	2160	56,8 5224/10 (CTCV)
		10x30 - 8mm	2212	58,5 2957/17 (CTCV)
		10x30 - 8,5mm	2194	55,3 3057/09 (CTCV)
		30x30 - 8,5mm	2170	52,3 2956/17 (CTCV)
		30x30 - 8,5mm	2003	51,3 2110/09 (CTCV)
		30x30 - 8,5mm	2219	56,5 2537/08 (CTCV)
		30x30 - 8,5mm	2254	55,7 4986/10 (CTCV)
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)
		10x10 Smooth Texture		2954/17 (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)
		10x10 Smooth Texture		2954/17 (CTCV)
Chemical resistance	ISO10545-13	10x10 Smooth Texture		C181457 (ITC) C181451 (ITC) C180201 (ITC) C180487 (ITC) 1891/12 (CTCV)

Stain resistance	ISO 10545-14	10x10 Smooth Texture	C181450(ITC) C181456(ITC) C180486(ITC) C180488(ITC) C180491(ITC) 1437/00 (CTCV)	
Dynamic Coefficient of Friction (DCOF)			Values	
SLIP RESISTANCE	ASTM - ANSI A137.1-2012 AS 4586:2013 Apendix B	10x10 Smooth Texture	0.62	101733656COQ-001
		10x10 Riven Texture (RT)	0.65	101733656COQ-001A
		10x10 Smooth Texture	0.65	16/9779.2
	Wet Pendulum Slip Resistance			
	AS 4586:2013 Apendix A	10x10 Smooth Texture	47	16/9779.1
	DIN 51130 (values explanation) BRG181 (Drainage) Areas with footwear			
		10x10 Plain Finish (smooth)	10° < R10 ≤ 19°	R10 EE.HS-KOBLENZ 2013 KP100-9 4401 244 DIN51130 EE.HS-KOBLENZ 2013 KP100-10 4416 293 DIN51130
		10x10 Octagon with dot	10° < R10 ≤ 19°	R10 KP 38 3 4416OCT14 M7400 DI N51130
		10x10 Hexagon	10° < R10 ≤ 19°	R10 KP 38 1 L4401HEX 295 DIN51130
		10x10 Round Studs (RC)	19° < R11 ≤ 27°	R11 (V8) EE.HS-KOBLENZ 2013 KP33-9 4401RC 210 DIN51130
		10x10 Square Studs (SS1 mm)	19° < R11 ≤ 27°	R11 (V6) EE.HS-KOBLENZ 2013 KP33-10 4401SS 238 DIN51130
		10x10 Diamond Studs (DD)	27° < R12 ≤ 35°	R12 EE.HS-KOBLENZ 2013 KP33-8 4401DD 223 DIN51130
		10x10 Riven (RT)	27° < R12 ≤ 35°	R12 EE.HS-KOBLENZ 2013 KP100-13 4401RT 244 DIN51130
		10x30 Plain Finish (smooth)	10° < R10 ≤ 19°	KP 38 2 1301 283 DIN51130
		15x15 Plain Finish (smooth)	10° < R10 ≤ 19°	R10 EE.HS-KOBLENZ 2013 KP100-11 6601 244 DIN51130 EE.HS-KOBLENZ 2013 KP100-12 6616 294 DIN51130
		15x15 Round Studs (RC)	19° < R11 ≤ 27°	R11 (V6) EE.HS-KOBLENZ 2008 KP256-2 6601RC 146 DIN51130
		15x15 Square Studs (SS1 mm)	19° < R11 ≤ 27°	R11 KP 107 - 4/10 (FH - Koblenz)
		15x15 Diamond Studs (DD)	27° < R12 ≤ 35°	R12 (V7) EE.HS-KOBLENZ 2008 KP256-4 6601DD 175 DIN51130
		15x15 Riven (RT)	27° < R12 ≤ 35°	R12 (V5) EE.HS-KOBLENZ 2013 KP100-14 6601RT 244 DIN51130
		30x30 Plain Finish (smooth)	6° ≤ R9 ≤ 10°	R9 EE.HS-KOBLENZ 2013 KP100-16 3001 244 DIN51130
		30x30 Smooth R	19° < R11 ≤ 27°	R11 KP 107 - 6/10 (FH - Koblenz)
		30x30 Riven (RT)	19° < R11 ≤ 27°	R11 EE.HS-KOBLENZ 2013 KP100-15 3001RT 244 DIN51130
	DIN 51 097 By German Institutes (values explanation) Bare-footed Areas			
			Angle	Category
		10x10 Smooth Texture	18° ≤ B < 24°	B EE.HS-KOBLENZ 2013 KP33-1 4401 238 DIN51097 EE.HS-KOBLENZ 2013 KP100-1 4401 244 DIN51097
		10x10 Octagon with dot	18° ≤ B < 24°	B KP 38 6 4416OCT14 M7400 DI N51097

		10x10 Hexagon Smooth Texture	$18^{\circ} \leq B < 24^{\circ}$	B	KP 38 4 L4401HEX 295 DIN51097
		10x10 Smooth Texture (white)	$C \geq 24^{\circ}$	C	EE.HS-KOBLENZ 2013 KP100-2 4416 293 DIN51097
		10x10 Round Studs (RC)	$C \geq 24^{\circ}$	C	EE.HS-KOBLENZ 2013 KP33-2 4401RC 210 DIN51097
		10x10 Square Studs (SS1 mm)	$C \geq 24^{\circ}$	C	EE.HS-KOBLENZ 2013 KP33-3 4401SS 238 DIN51097
		10x10 Riven Texture(RT)	$C \geq 24^{\circ}$	C	EE.HS-KOBLENZ 2013 KP100-5 4401RT 244 DIN51097
		10x30 Smooth Texture	$18^{\circ} \leq B < 24^{\circ}$	B	KP 38 5 1301 283 DIN51097
		15x15 Smooth Texture	$18^{\circ} \leq B < 24^{\circ}$	B	EE.HS-KOBLENZ 2013 KP100-3 6601 244 DIN51097 EE.HS-KOBLENZ 2013 KP100-4 6616 294 DIN51097
		15x15 Rubber dies (R)	$18^{\circ} \leq B < 24^{\circ}$	B	72529906-001 (Säure-flisner)
		15x15 Square Studs (SS1 mm)	$C \geq 24^{\circ}$	C	KP 107 - 1/10 (FH - Koblenz)
		15x15 Riven Texture(RT)	$C \geq 24^{\circ}$	C	EE.HS-KOBLENZ 2013 KP100-6 6601RT 244 DIN51097
		30X30 Smooth	$12^{\circ} \leq A < 18^{\circ}$	A	EE.HS-KOBLENZ 2013 KP100-8 3001 244 DIN51097
		30X30 Smooth R	$18^{\circ} \leq B < 24^{\circ}$	B	KP 107 - 3/10 (FH - Koblenz)
		30x30 Riven Texture(RT)	$18^{\circ} \leq B < 24^{\circ}$	B	EE.HS-KOBLENZ 2013 KP100-7 3001RT 244 DIN51097
	(Ramp)	.	Angle	Category	
	DIN 51 097	10x10 Smooth Texture	$18^{\circ} \leq B < 24^{\circ}$	B	(086579)-30001 CERAM - UK
	By Ceram UK (values explanation)	15x15 Smooth Texture	$18^{\circ} \leq B < 24^{\circ}$	B	(086579)-30000 CERAM - UK
		15x15 Round Stud (RC)	$C \geq 24^{\circ}$	C	(086579)-29999 CERAM - UK
		15x15 Square Studs (SS)	$C \geq 24^{\circ}$	C	(086579)-29998 CERAM - UK
		15x15 Diamond Studs (DD)	$C \geq 24^{\circ}$	C	(086579)-29997 CERAM - UK
		15x15 Riven Texture (RT)	$C \geq 24^{\circ}$	C	(086579)-29996 CERAM - UK
SLIP RESISTANCE	(pendulum) 2002 (values explanation)	.	Dry Values	Wet Values	.
		10x10 Plain Finish (smooth)	60	37	086579 - 30001 CERAM UK
		15x15 Plain Finish (smooth)	60	39	086579 - 30000 CERAM UK
		15x15 Round Studs (RC)	81	70	086579 - 29999 CERAM UK
		15x15 Square Studs (SS)	67	54	086579 - 29998 CERAM UK
		15x15 Diamond Studs (DD)	87	72	086579 - 29997 CERAM UK
		15x15 Riven (RT)	61	53	086579 - 29996 CERAM UK
	UNE-ENV - 12633:2003 (values explanation)	.	Value	Valor	.
		30x30 Smooth- uni color - English	25	25	C070363 (ITC)
		30x30 Liso - monocolor - Spanish			C070362(ITC)
		30x30 Liso molde caucho- Spanish		48	CO92766(ITC)
		15x15 Smooth		24 26	1.5.2914/09 (CTCV) C 123267 (ITC)
		15x15 SS		57 48	1.5.4979/10 (CTCV) C 123270 (ITC)
		15x15 Smooth		33	1.5.4986/10 (CTCV)
		15x15 Smooth rubber dies		42	C 123266 (ITC)
		15x15 RC		56 56	1.5.4981/10 (CTCV) C 123268 (ITC)
		15x15 RT		52	1.5.4980/10 (CTCV)

Determination of slip
resistence of ceramic

Determinación de la Resistencia al

10x10 RT		44	C 123271 (ITC)
15x15 DD		63	1.5.4982/10 (CTCV)
		59	C 123269 (ITC)
10x10 Smooth uni color - English	26	26	C070357 (ITC)
10x10 Liso - monocolor - Spanish			C070356 (ITC)
10x10 Smooth granite - English	33	33	C070351 (ITC)
10x10 Liso pigmentada - Spanish			C070350 (ITC)
10x10 Smooth ruber dies - English	43	43	C070353 (ITC)
10x10 Liso molde de caucho - Spanish			C070352 (ITC)
10x10 SS Spec 1 mm - Spanish		55	C100453 (ITC)
10x10 SS uni color - English	45	45	C070355 (ITC)
10x10 SS monocolor - Spanish			C070354 (ITC)
10x10 RT uni color - English	46	46	C070349 (ITC)
10x10 RT monocolor - Spanish			C070348 (ITC)
10x10 DD color - English	49	49	C070361 (ITC)
10x10 DD monocolor - Spanish			C070360 (ITC)
10x10 RC uni color - English	52	52	C070359 (ITC)
10x10 RC monocolor - Spanish			C070358 (ITC)