

# The Westminster Series

## TECHNICAL SPECIFICATIONS

PHYSICAL PROPERTIES	NORMS ISO	VALUES BY NORMS	TOPCER VALUES
Water absorption	10545-3	≤0.5%	0.08%
Breaking strength in N	10545-4	>1300 N	2081 N - 8 mm thick 4539 N - 12 mm thick
Modulus of rupture (N/mm <sup>2</sup> )	10545-4	Minimum 35 N/mm <sup>2</sup>	65,4 N/mm <sup>2</sup>
Resistance to deep abrasion	10545-6	Maximum 175 mm <sup>3</sup>	128 mm <sup>3</sup>
Frost resistance	10545-12	No visible alteration to surface	Frost Proof
Resistance to chemicals	10545-13	No visible signs of attack	Unaffected
Dry pressed ceramic tiles with a low water absorption (E ≤ 0.5%) -- Group B1a – ISO 13006			
Average Coefficient of Friction (Tortus Test)	B.C.R.A. British Ceramic Research	≤0.40 Plain Surface Tile	Dry 0.9 - 0.89 Wet 0.76 - 0.76
BARE-FOOT TRAFFIC IN WET AREAS eg SWIMMING POOLS			
Slip resistance as tested on an inclined wet ramp  A = 12° B = 18° C = 24°	DIN 51097	96 x 96 x 8 mm Plain Tile 146 x 71 x 8 Plain Tile 146 x 146 x 8 mm Plain Tile Octagon + Dot	Groups A + B
		96 x 96 x 8 mm Profile Tile 146 x 146 x 8 mm Profile Tile	Groups A + B + C
ASSESSMENT GROUPS, BARE-FOOT TRAFFIC IN WET AREAS (DIN 51097)			
GROUP	MIN ANGLE OF INCLINE	APPLICATIONS	
A	≥12° <18°	Changing and circulation areas (mainly dry) Pool floors if water exceeds 800 mm depth	
B	≥18° <24°	Pool surrounds (tradition overflow channel type) Rising floors. Pool floors (learner pools) Pool floors, wave pools if water exceeds 800 mm depth	
C	≥24°	Pool surrounds (level deck systems) Beach pool areas. Shallow fun/paddling pools inclined areas Pool floors in wave pool areas, communal showers Water entry points eg stairs, ramps and foot baths	
DD SL/RT RC/SS PLAIN		Slip resistance as tested by BIA (Berufsgenossenschaftliches Institut für Arbeitssicherheit) R12 R12 R11 R9/R10	

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Slip resistance test results Report R 18020 by **Transfire Services Ltd. Pendulum Test**

Transfire Sample Ref:	H E Smith/Hennessy Sample Ref:	Test Condition	Slip Resistance Values (SRV)	Mean SRV	Overall Mean SRV
TSL 0208	Westminster (16) Series Anti-Slip 300x300x8mm	DRY	65,66,66,65,65	65	
		WET	46,46,46,46,46	46	
		DRY	64,65,65,66,66	66	66
		WET	46,45,45,46,45	45	46

Classification

24 and below	dangerous or very poor
25 to 34	marginal or poor
34 to 64	satisfactory
65 and above	excellent or very good

<b>SLIP RESISTANCE</b> Areas with footwear	UNI EN ISO 10545-17 DIN 51130	(*) R9 FROM 3° to 10° R10 over 10° to 19° R11 over 19° to 27° R12 over 27° to 35°	Plain finish – Solid colours Plain finish – Granite colours Square studs & Round studs Riven & Diamond studs
Areas with bare feet	DIN 51097	(*) <b>A</b> over 12° to 18° <b>B</b> over 18° to 24° <b>C</b> over 24°	Plain finish 15x15cm Riven & square studs 10x10cm Diamond & Round studs
Water drainage	DIN 51130	V4 5 cm <sup>3</sup> /dm <sup>2</sup> V8 8 cm <sup>3</sup> /dm <sup>2</sup> V8 9 cm <sup>3</sup> /dm <sup>2</sup>	Square stud Round studs Diamond studs
Skid resistance	ASTM C 1028-89		Dry 0.89 Wet 0.76 Plain finish