

Technical details for 600x600mm and 600x900mm Heavy Duty Tiles



Following the EN 14411 (ISO 13006) norms and test cases UNI ISO 10545 appendix G for ceramic tiles dry pressed with low water absorption E<0.5% Bla

Sr. No.	TEST CONDUCTED	TEST RESULTS	TEST REQUIREMENTS AS PER IS 15622 : 2006	REMARKS
1	Water absorption (% by mass)	Average: 0.17		Based on the results of Water absorption the tested tiles conformed to Gr. B Ib (0.08% 3%) of IS 15622-2006 Further test results were delivered as per requirements of Gr. B Ib
2	Modulus Of Rupture (MOR) N/mm ² Span Length = 580 mm Average thickness of the tiles measured = 19.81 mm	Average: 39.0 N/MM ²		Passed the test
3	Breaking Strength (N) Span Length = 580 mm Average thickness of the tiles measured = 19.81 mm	Average: 8090.0 N	(Gr. B Ib) For thickness > 7.5 mm 1200 N minimum	Passed the test
4	Scratch Hardness Surface (Mohr' scale)	No. 7	(Gr. B Ib) For commercial application 6 minimum, Home application 5 minimum	Passed the test
5	Thermal Shock Resistance	None of the tiles as tested showed any defects on surface at the end of the 10th cycle.	(Gr. B Ib) Tiles specimens should not show any visible defect when subjected to thermal shock resistance test as per test method IS 13630 : 2006 (Part 5) with immersion	Passed the test
6	Bulk Density (gm/cc)	Average: 2.302	IS 13630 (Part 2) : 2006	
7	Co-efficient of Thermal Expansion from ambient Temperature to 100oC	l = 4.4956 (10 K1) B = 4.6883 (10 K1)	-	Passed the test
8	Straightness of Sides (facial sides) The maximum deviation from straightness in percent related to the corresponding work sizes	+ 0.05% (Max) '- 0.08% (Max)	(Gr. B Ib) S > 410 cm ² (+) (-) 0.1%	Passed the test
9	Rectangularity The maximum deviation from straightness in percent related to the corresponding work sizes	+ 0.10% (Max) '- 0.10% (Max)	± 0.1%	Passed the test
10	Surface Flatness The maximum deviation from flatness in percent (a) Centre of curvature related to diagonal calculated from work size. (b) Edge of curvature related to the corresponding work size. (c) Warpage related to the diagonal calculated from the work size.	'+ 0.17% (Max) '- 0.10% (Max) '+ 0.10% (Max) '- 0.10% (Max) '+ 0.10% (Max)	± 0.2% ± 0.2% ± 0.2%	Passed the test Passed the test Passed the test
11	Chemical resistance five test specimens were treated with following soins. (a) Centre of curvature related to diagonal calculated from work size. (b) Edge of curvature related to the corresponding work size. (c) Warpage related to the diagonal calculated from the work size. Five test specimens were treated with following soins 1. Household Chemicals a) Ammonium chloride soin. (100 gm/l) b) Standard cleaning Agent soin, (as per procedure) 2. Swimming pool salts a) Sodium Hypochlorite Soin, (20 mg/l) b) Copper Sulphate Soin. (20 mg/l) 3. Acids a) Hydrochloric acid Soin	'+ 0.17% (Max) '- 0.10% (Max) '+ 0.14% (Max) '- 0.09% (Max) '+ 0.06% (Max) No visual changes observed after immersion for 6 hs., pencil lines removed with soft dry cloth. No visual changes observed after immersion	± 0.2% ± 0.2% ± 0.2% "Class - AA" min. "Class - AA" min.	Passed the test Passed the test Passed the test Conformed to "Class-AA" Conformed to "Class-AA" Conformed to

12	<p>Skid Resistance / Surface Slip Resistance</p> <p>(a) Condition of Test Surface: Tile Surface was cleaned thoroughly be wet cloth followed by dry cloth and ensured that the surface is completely clean and dry the time of testing.</p> <p>(b) Direction of Test</p> <p>(1) Parallel to sides (4 Measurements)</p> <p>(2) Diagonal to sides (4 Measurements)</p>	<p>Coefficient of friction</p> <p>1) 0.83 2) 0.78 3) 0.77 4) 0.79</p> <p>5) 0.76 6) 0.75 7) 0.76 8) 0.76</p>	<p>As per ISO 10545 Part - 17</p>	-
13	<p>Moisture expansion in (mm / mtr.)</p>	0	Passed the test	-
14	<p>Skid Resistance / Surface Slip Resistance</p> <p>BS EN Standard specification EN:14411 : 2016 (Group Bla)</p>	-	R-11	R-11