

TECHNICAL DETAILS

PORCELAINS AND TECHNICAL PORCELAINS

THEME	BEN STANDARDS	TS EN 14411 Annex G		TEST METHOD
LENGTH AND WIDTH	± 0,5 %	± 0,6 %	± 2,0 mm	TS EN ISO 10545 - 2
THICKNESS	± 5 %	± 5 %	± 0,5 mm	TS EN ISO 10545 - 2
STRAIGHTNESS OF SIDES	± 0,3 %	± 0,5 %	± 1,5 mm	TS EN ISO 10545 - 2
RECTANGULARITY	± 0,5 %	± 0,5 %	± 2,0 mm	TS EN ISO 10545 - 2
CENTER CURVATURE	± 0,3 %	± 0,5 %	± 2,0 mm	TS EN ISO 10545 - 2
EDGE CURVATURE	± 0,3 %	± 0,5 %	± 2,0 mm	TS EN ISO 10545 - 2
WARRPAGE	± 0,3 %	± 0,5 %	± 2,0 mm	TS EN ISO 10545 - 2
SURFACE QUALITY	% 5 defective	% 5 defective		TS EN ISO 10545 - 2
WATER ABSORPTION	Max. ≤ 0,5 %	Max ≤ 0,5 %		TS EN ISO 10545 - 3
BREAKING STRENGTH (≥25 mm)	Min. 1300 N	Min. 1300 N		TS EN ISO 10545 - 4
BREAKING STRENGTH (<25 mm)	Min. 700 N	Min. 700 N		TS EN ISO 10545 - 4
MODULUS OF RUPTURE	Min. 35 N/mm ²	Min. 35 N/mm ²		TS EN ISO 10545 - 4
IMPACT RESISTANCE	Resistant	Required		TS EN ISO 10545 - 5
THERMAL SHOCK RESISTANCE	Resistant	Required		TS EN ISO 10545 - 9
CRACKING RESISTANCE	Resistant	Required		TS EN ISO 10545 - 11
FROST RESISTANCE	Resistant	Required		TS EN ISO 10545 - 12
RESISTANCE TO STAINING	Min. Class 3	Min. Class 3		TS EN ISO 10545 - 14
RESISTANCE TO ACIDS/ALKALIS	Min. Class GLB - GHB	As declared		TS EN ISO 10545 - 13
RESISTANCE TO HOUSEHOLD CHEM.	Min. Class GB	Min. Class GB		TS EN ISO 10545 - 13
ABRASION CLASS	Min. II	As declared		TS EN ISO 10545 - 7

TECHNICAL DETAILS

FLOOR TILES

THEME	BEN STANDARDS	TS EN 14411 Annex H		TEST METHOD
LENGTH AND WIDTH	± 0,5 %	± 0,6 %	± 2,0 mm	TS EN ISO 10545 - 2
THICKNESS	± 5 %	± 5 %	± 0,5 mm	TS EN ISO 10545 - 2
STRAIGHTNESS OF SIDES	± 0,3 %	± 0,5 %	± 1,5 mm	TS EN ISO 10545 - 2
RECTANGULARITY	± 0,5 %	± 0,5 %	± 2,0 mm	TS EN ISO 10545 - 2
CENTER CURVATURE	± 0,3 %	± 0,5 %	± 2,0 mm	TS EN ISO 10545 - 2
EDGE CURVATURE	± 0,3 %	± 0,5 %	± 2,0 mm	TS EN ISO 10545 - 2
WARRPAGE	± 0,3 %	± 0,5 %	± 2,0 mm	TS EN ISO 10545 - 2
SURFACE QUALITY	% 5 defective	% 5 defective		TS EN ISO 10545 - 2
WATER ABSORPTION	Max 3,0 %	Max 3,0 %		TS EN ISO 10545 - 3
BREAKING STRENGTH (≥25 mm)	Min. 1100 N	Min. 1100 N		TS EN ISO 10545 - 4
BREAKING STRENGTH (<25 mm)	Min. 700 N	Min. 700 N		TS EN ISO 10545 - 4
MODULUS OF RUPTURE	Min. 30 N/mm ²	Min. 30 N/mm ²		TS EN ISO 10545 - 4
IMPACT RESISTANCE	Resistant	Required		TS EN ISO 10545 - 5
ABRASION CLASS	Min. II	Required		TS EN ISO 10545 - 7
THERMAL SHOCK RESISTANCE	Resistant	Required		TS EN ISO 10545 - 9
CRACKING RESISTANCE	Resistant	Required		TS EN ISO 10545 - 11
FROST RESISTANCE	Resistant	Required		TS EN ISO 10545 - 12
RESISTANCE TO ACIDS/ALKALIS	Class GLB-GHB	As declared		TS EN ISO 10545 - 13
RESISTANCE TO HOUSEHOLD CHEM.	Min. Class GB	Min. Class GB		TS EN ISO 10545 - 13
RESISTANCE TO STAINING	Min. Class 3	Min. Class 3		TS EN ISO 10545 - 14

TECHNICAL DETAILS

WALL TILES

THEME	BEN STANDARDS	TS EN 14411 Annex K		TEST METHOD
LENGTH AND WIDTH	± 0,4 %	± 0,5 %	± 2,0 mm	TS EN ISO 10545 - 2
THICKNESS	± 10 %	± 10 %	± 0,5 mm	TS EN ISO 10545 - 2
STRAIGHTNESS OF SIDES	± 0,2 %	± 0,3 %	± 1,5 mm	TS EN ISO 10545 - 2
RECTANGULARITY	± 0,5 %	± 0,5 %	± 2,0 mm	TS EN ISO 10545 - 2
CENTER CURVATURE	+ 0,4 % - 0,2 %	+ 0,5 % - 0,3 %	+ 2,0 % - 1,5 %	TS EN ISO 10545 - 2
EDGE CURVATURE	+ 0,4 % - 0,2 %	+ 0,5 % - 0,3 %	+ 2,0 % - 1,5 %	TS EN ISO 10545 - 2
WARRPAGE	± 0,4 %	± 0,5 %	± 2,0 mm	TS EN ISO 10545 - 2
SURFACE QUALITY	% 5 defective	% 5 defective		TS EN ISO 10545 - 2
WATER ABSORPTION	% 10 - 20	% 10 - 20		TS EN ISO 10545 - 3
BREAKING STRENGTH (≥25 mm)	Min. 600 N	Min. 600 N		TS EN ISO 10545 - 4
BREAKING STRENGTH (<25 mm)	Min. 200 N	Min. 200 N		TS EN ISO 10545 - 4
MODULUS OF RUPTURE	Min. 15 N/mm ²	Min. 15 N/mm ²		TS EN ISO 10545 - 4
THERMAL SHOCK RESISTANCE	Resistant	Required		TS EN ISO 10545 - 9
CRACKING RESISTANCE	Resistant	Required		TS EN ISO 10545 - 11
RESISTANCE TO ACIDS/ALKALIS	Min. Class GLB - GHB	As declared		TS EN ISO 10545 - 13
RESISTANCE TO HOUSEHOLD CHEM.	Min. Class GB	Min. Class GB		TS EN ISO 10545 - 13
RESISTANCE TO STAINING	Min. Class 3	Min. Class 3		TS EN ISO 10545 - 14

NET SIZE INFORMATION OF LAPPATO'S PRODUCTION

BEAT SIZE	SIZE OF FULL LAPPATO & RECTIFIE PRODUCTION	SIZE OF NON-FULL LAPPATO & RECTIFIE PRODUCTION	SIZE OF SEMI-LAPPATO & RECTIFIE PRODUCTION
120x180 Rec.	1195x1785 mm	1195x1785 mm	1195x1785 mm
100x100 Rec.	100x100 mm	100x100 mm	100x100 mm
60x120 Rec.	596x1196 mm	600x1200 mm	600x1200 mm
60x60 Rec.	597x597 mm	597x597 mm	597x597 mm
30x60 Rec.	297x597 mm	297x597 mm	297x597 mm












WALL & FLOOR TILES COLLECTIONS

PRODUCT TYPE	SIZE	EDGE	BOX			PALLET			
			PRICE	QUANTITY (sq.)	WEIGHT (kg)	BOX	QUANTITY (sq.)	WEIGHT (kg)	PALLET SIZE
Wall Tile	40x20 / 6x40"	Rectified	3	1.440	24,00	30	43,20	744	96,00x192,00
Wall Tile	30x30 / 6x6"	Rectified	8	1.620	22,50	45	105,30	1.800	96,00
Wall Tile	30x40 / 6x10"	-	8	1.440	21,00	60	84,00	1.260	96,00
Wall Tile	30x40 / 6x10"	Rectified	6	1.440	21,00	60	84,00	1.260	96,00
Wall Tile	10x20 / 6x12"	-	40	0.800	9,00	75	60,00	750	80x120
Wall Tile	10x30 / 6x12"	-	33	0.990	10,00	60	58,80	745	80x120
Floor Tile	45x45 / 6x6"	Rectified	8	1.818	29,00	44	70,30	1.320	80x120
Floor Tile	40x40 REC / 6x6"	Rectified	10	1.837	27,50	50	76,85	1.400	80x120
Floor Tile	40x40 / 6x6"	-	10	1.800	28,00	50	80,00	1.425	80x120
Floor Tile	33x33 / 6x6"	-	9	0.980	18,00	46	45,08	800	80x120
Floor Tile	30x40 / 6x10"	-	12	1.440	21,00	60	84,00	1.260	80x120
Floor Tile	19,2x19,2 / 6x6" (60x60mm)	-	21	0.814	12,50	81	66,214	1.020	80x120
Floor Tile	19,2x19,2 / 6x6"	-	25	1.000	13,60	72	72,00	1.020	80x120
Floor Tile	14,2x14,2 / 6x6"	-	45	0.247	14,00	72	53,784	1.040	80x120
Gloss Porcelain	15x60 / 6x12"	-	13	1.170	21,9	48	54,36	1.040	80x120

PORCELAIN TILES COLLECTIONS

PRODUCT TYPE	SIZE	EDGE	BOX			PALLET			
			PRICE	QUANTITY (sq.)	WEIGHT (kg)	BOX	QUANTITY (sq.)	WEIGHT (kg)	PALLET SIZE
Technical Porcelain	120x80 / 48x32"	Rectified	9 (Minimum)	2.160	19,34	21	44,730	942	140x200
Technical Porcelain	100x100 / 40x40"	Rectified	2	2.00	37,00	30	60,000	1.140	70x104
Technical Porcelain	45x90x2 / 18x36x8"	Rectified	2	0.830	14,00	26	21,060	392	98x122
Technical Porcelain	60x60x2 / 24x24x8"	Rectified	2	0.720	33,00	32	23,040	376	80x120
Technical Porcelain	60x60 / 24x24"	Rectified	2	1.440	30,00	35	50,400	1.070	87x121
Gloss Porcelain	60x60 / 24x24"	-	4	1.488	29,00	32	47,616	948	80x120
Gloss + Technical	60x60 / 24x24"	Rectified	4	1.440	28,00	32	46,080	935	80x120
Gloss Porcelain	50x50 / 20x20"	-	7	1.750	28,00	48	84,00	1.364	89x120
Gloss Porcelain	30x60 / 6x12"	-	9	1.620	28,32	30	51,840	876	80x120
Gloss + Technical	30x60 / 6x12"	Rectified	9	1.620	28,32	32	53,840	1.044	80x120
Gloss Porcelain	20x20 / 6x6"	-	6	1.440	30,00	36	53,840	1.020	74x121

SYMBOLS

	WALL TILES		FLOOR TILES		PORCELAIN
	GLOSSY		MATTE		ACID SENSITIVE
	RECTIFIED		FULL LAPPATO		SEMI LAPPATO
	TECHNICAL PORCELAIN		Mohs		SCRATCH RESISTANCE

SHADE VARIATION

	UNIFORM APPEARANCE		SLIGHT VARIATION
	MODERATE VARIATION		RANDOM VARIATION

The color shade or shades of all tiles vary to some degree from piece to piece, for each single production. At least several pieces from the same production should be reviewed whenever possible to determine acceptable color shade variations. Any questions or concerns about your tile selection should be clarified prior to installation.

ABRASION RESISTANCE OF FLOOR TILES

	LOW TRAFFIC		MEDIUM TRAFFIC
	HEAVY TRAFFIC		EXTRA TRAFFIC

LOW TRAFFIC: Tiles suited for general residential traffic. For areas that are walked on by soft soled or normal footwear without any scratching dirt. Not suitable for kitchen, entrance halls, stairs and other areas subjected to medium traffic.

MEDIUM TRAFFIC: Tiles suitable for areas subject to frequent foot traffic yet protected from abrasive agents such as sand, gravel and soil. For example corridors, private kitchens, balconies, terraces, hotel rooms.

HEAVY TRAFFIC: Tiles suitable for areas subject to frequent foot traffic and heavy abrasion, for example shops, hotels, restaurants, bars, schools, offices. Particularly suitable for areas in direct contact with outside.

EXTRA TRAFFIC: Suitable for heavy traffic indoor and outdoor environments.

DECOR & MOSAICS

PRODUCT TYPE	SIZE	EDGE	BOX			PALLET			
			PRICE	QUANTITY (sq.)	WEIGHT (kg)	BOX	QUANTITY (sq.)	WEIGHT (kg)	PALLET SIZE
Step	30x20 / 6x40"	Rectified	4	1.440	25,84	-	-	-	-
Decor	40x20 / 6x40"	Rectified	2	0.960	16,16	-	-	-	-
Decor	30x30 / 6x6"	Rectified	4	1.080	18,05	-	-	-	-
Decor	30x60 / 6x12"	-	6	1.440	20,80	-	-	-	-
Mosaic	30,5x30,5 / 6x12"	Rectified	11	1.030	17,43	-	-	-	-
Mosaic	30x48,6 / 6x12"	Rectified	5	0.729	12,62	-	-	-	-
Mosaic	30x68 / 6x12"	Rectified	5	1.030	18,76	-	-	-	-
Mosaic	33x33 / 6x6"	Rectified	6	0.659	10,08	-	-	-	-
Mosaic	32x42 / 6x6"	Rectified	5	0.400	7,00	-	-	-	-

CERTIFICATIONS

TSE TSI CERTIFICATE OF CONFORMITY TO DOUBLE STAR CRITERIA	
EN 14411 TURKISH STANDARD FOR CERAMIC TILES	
ISO 9001 CERTIFICATE OF QUALITY MANAGEMENT SYSTEMS	
ISO 45001 CERTIFICATE OF OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEMS	
ISO 14001 CERTIFICATE OF ENVIRONMENTAL MANAGEMENT SYSTEMS	
ISO 27001 INFORMATION SECURITY MANAGEMENT SYSTEMS	
CE DECLARATION OF PERFORMANCE	
AEO AUTHORISED ECONOMIC OPERATOR CERTIFICATE	
GREENGUARD PRODUCT CERTIFIED FOR LOW CHEMICAL EMISSIONS - GOLD	
SASO ISO 13006/2018	
UPEC	

AWARDS

A'DESIGN AWARD



IDA DESIGN AWARDS



ELLE DECORATION INTERNATIONAL DESIGN AWARDS



RAF ÖDÜLLÜ AWARD



REDDOT DESIGN AWARD



USER'S MANUAL

The information provided below has been prepared in order to guide the user for achieving maximum efficiency in usage of the tiles and ensuring usage for a long time.

SELECTION OF THE TILES

• Selection of ceramic materials has to be done with care in order that they are suitable for the usage conditions and they have a long life. Selection has to be made by taking into account the classification provided below based on the area of usage.

1. Wall Tiles: For indoor walls

2. Floor Tiles: For indoor floors and walls

3. Porcelain Tiles: For indoor floors and walls, outdoor floors, walls and facades

4. Technical Porcelain Tiles: For indoor floors and walls, outdoor floors, walls and facades

• Suitability of the products with the specifications of usage areas increases efficiency. As such, it would be beneficial to select products which are suitable for traffic intensity in areas where pedestrian traffic intensity is high. Information as to relevant traffic intensity is provided with the products.

ISSUES TO BE CONSIDERED IN APPLICATION

• Instructions must be followed carefully while applying the tiles. Tone and calibration controls of the tiles must be made before the application and care should be taken to ensure that products to be applied to an area are in the same tone and calibration. Products, with patterns following each other, must be laid in the same direction. The relevant instructions are provided on the boxes.

• Tiles are also applied in twisted layout applications. Twisting method is frequently used especially in rectangular form wood-like products. There may be deformations according to TSI standards due to usage of very high temperature during production of tiles. As such, wedge application is very useful while applying big size products. This method will eliminate the defects arising from floor and labor and minimize considerable deformation levels which can occur during the production.

• The tiles should be applied with a certain joint space. Relevant joint spaces should be as follows: minimum 1 mm in rectified tiles and 2 mm for best results and minimum 2 mm in unrectified tiles and 3 mm for best results.

USAGE CONDITIONS

• Ceramic tiles which cover living areas are getting more active and richer appearance with décor and border groups. As such, decorative purpose of décor and border products stands out more. The surface resistances and abrasion resistances of these products are not high compared to other products. Décor and border products contain metallic colors such as gold, platinum and copper. These products with metallic colors are abraded because of cleaning products which contains acid and they may get damaged by time. As such, décor and border products should not be cleaned with acid cleaning agents and must be cleaned with soap or with a damp cloth. You can see relevant information in our catalog near the product.