TECHNICAL INFORMATION

TYPES OF TILES

All the ceramic tiles produced by Zorka Keramika in accordance with the latest edition of European Standard EN 14411.

Glazed wall tiles and glazed wall decorations with water absorption E > 10% – Group B III, with parameters conforming to EN 14411. These tiles are designed for tiling wall interiors with temperatures above 0 °C, the tiles are not frost proof.

Glazed tiles and glazed floor decorations with water absorption E < 0.5 % = Gres Porcellanato Smaltato – Group B Ia, with parameters conforming to EN 14411. These tiles are designed for interior and exterior tiling in residential housing and public utility buildings. The tiles are characterized by low water absorption, high resistance to bending, high hardness and resistance to abrasion. All the floor tiles produced by Zorka Keramika are of the Gres Porcellanato type.

CRITICAL TECHNICAL PROPERTIES OF CERAMIC TILES

Water absorption and frost resistance

Water absorption is the most important property for selecting the appropriate tile for a particular application, especially in wet environments or in areas subject to freeze/thaw cycles. Generally, the lower the water absorption, the higher the frost resistance, compactness and hardness of the tile.

	Types of tiles as per water absorption							
E > 10 %	E > 10 % Wall tiles "MONOPOROSA" EN 14 411, B III Only for interior walls							
E ≤ 0.5 % Fully vitrified tiles "GRES PORCELLANATO"		EN 14 411, B la	Highly resistant tiles, frost resistant floors in exteriors and interiors, facades, balconies, terraces					

Abrasion resistance (PEI)

The abrasion resistance of glazed tiles is one of the decision-making parameters for the choice of an appropriate tile. Abrasion resistance marks the resistance of the tile surface to mechanical wear and tear. The higher the mechanical and pollution exposure of the floor and pedestrian traffic, the higher abrasion resistance is desired. Particularly hard dirt particles from streets or gardens gradually abrade the surface of tiles and irreversible changes in their appearance may occur. The standard EN ISO 10545-7 classifies abrasion resistance with classes/degrees from 0 to 5. The information about abrasion resistance is indicated next to the floor tile picture.

	PEI classification and recommended application					
PEI 0	Not recommended for floors at all	interior vertical tiling, non-trafficable areas				
PEI 1	Light duty floor with rare traffic without risk of scratching	interior vertical tiling, bedrooms, soft sole shoes				
PEI 2	Light duty floor with rare traffic and small pollution	interiors of flats not directly connected to the outside areas				
PEI 3	Medium duty floors with moderate pollution	interiors of family houses, hotel rooms etc. not directly conncted to the outside areas				
PEI 4	Heavy duty floors with busy traffic and higher pol- lution	interiors of offices, hotels, shops in shopping malls, entrance areas of family houses, balco- nies, terraces, less exposed exteriors				
PEI 5	Extra heavy duty floors with high exposition to abrasion	interriors and entrances of shops, restaurants, public buildings, staircases, exteriors				

Slip resistance

For some areas, the safety consideration is even more critical than for others. There is a responsibility for stakeholders involved in specifying flooring products (manufacturers, architects, distributors, installers etc.) to ensure that the surfaces are fit for the purpose and do not pose a safety risk for the users.

There is no uniform testing method in the EU and there are different requirements defined for anti-slip tile surfaces for areas walked on when wearing shoes (DIN 51 130) or when barefoot (DIN 51 097). Both tests are done on an inclined plane.

	commercial and industrial areas – DIN 51 130						
group	group angle of inclination friction grade application						
R 9 > 6° – 10° low house entrances, hospitals etc.							
R10	> 10° – 19°	normal	stores, workshops, small kitchens				
R 11	> 19° – 27°	increased	kitchens, laundries, workshops with wet surface				
R 12	> 27° – 35°	high	large kitchens, dairies etc.				
R 13	> 35°	very high	fat refineries, butcheries etc.				

	barefoot areas – DIN 51 097						
group angle of inclination friction grade application							
Α	≥ 12°	low	dressing rooms, pools with min 80 cm water				
В	≥ 18°	normal	saunas, pools				
C	≥ 24°	high	steps under the water, pool edges etc.				

For such special applications, e.g. high-traffic halls, entrances, industrial areas, kitchens, workshops, wellness areas etc. Zorka Keramika has developed some products fulfilling the above-mentioned requirements as follows:

series	DIN 51 130	DIN 51 097	series	DIN 51 130	DIN 51 097
ARTANA	R 9	В	MANTOVA 60x60	R 9	В
RIALTO	R 9	В	MANTOVA 30x60	R 9	В
WAVES	R 10	not tested	MANTOVA Rilievo 30x60	R11	not tested
ACCADEMIA	R 9	В	ANA GREY	R 10	not tested
TORINO	R 9	not tested	CORTINA	R 9	В
FOREST	R 10	В	ANA COTTO	R 11	not tested
BARDOLINO	R 9	В	TEATRO	R 9	В
CRYSTAL	R 10	В	ANA TERRA	R 11	not tested
NEW CITY	R 9	В	KD	R 12	С
ANA SAND	R 10	not tested	TUSCANY	R 10	В
PUBLIC	R 10	Α	PEBBLES	R 11	В
ROCK	R 9	not tested	PALADIANA	R 10	В
PORFIDO	R 10	not tested	FELIX	R 10	not tested

If the color is not explicitly stated the anti-slip value is valid for all the colors of the respective series. The certificate proving the above values can be found in the chapter titled Certificates.

Please note that the anti-slip surface of products results in a more demanding cleaning of the tiles.

PRODUCT IDENTIFICATION ON THE BOXES

The tiles are packed in carton boxes. The 1st choice is marked as follows:

ASSORTMENT	QUALITY	SHADE	CALIBER W=	CONTROL NUMBER	
Cioccolato Bianco	1	LL	1	1907100634	

- · Name of item/design Corresponds to the name stated in the catalogue
- Quality Usually 1 choice = 1, standard choice = S
- Color shade/version This is an immanent and typical attribute
 of all ceramic tiles. During the firing process more versions may
 occur the color may range in intensity, shade and surface texture,
 however the character of the design must be preserved.

Please observe – wall tiles, floor tiles and decors produced by modern rotocolor technology may show slight differences in pattern, color shade and intensity that are desirable and characteristic for a particular design.

In order to get the best effect, only one color shade must be used on the same area. Shade identification is applied mostly only for the 1st choice products.



- Calibre The number describing the dimension group of a tile within the dimensional tolerance given by the standard. In order to get the best effect, only one shade must be used on the same area. Calibre identification is mostly applied only for the 1st choice products.
- Control number A number enabling production identification. This information is essential in the event of any claims.

When tiling, it is strictly recommended to use only tiles in one shade and in the same calibre for the same area. Prior to tiling and opening and mixing the tiles from different boxes is recommended.

Boxes are loaded on one-way pallets in dimensions of 120 x 80 cm with a label as follows:

Logistic data

	dimensions in cm	pieces /box	sqm /box	kg /box	boxes /pallet	sqm /pallet	net weight kg/pallet	gross weight kg/pallet*
FT	10 × 20 × 1,3	18	0,36	9,6	99	35,64	950	980
FT	15 × 15 × 0,8	44	1,00	17,1	80	80	1370	1400
FT	15 × 30 × 0,8	22	1,00	17,1	80	80	1370	1400
WT	16,3 x 32,5 x 0,9	21	1,11	11	60	66,6	1020	1050
FT	18,6 × 46,5 × 0,9	12	1,03	18,9	51	52,53	965	995
WT	20 × 50 × 0,9	10	1,00	15,7	72	72	1130	1160
WT	25 × 40 × 0,9	10	1,00	14,4	72	72	1070	1100
FT	30 × 60 × 0,9	8	1,44	28,5	32	46,08	912	942
FT	33 × 33 × 0,8	14	1,52	24,8	42	63,84	1040	1070
FT	45 × 45 × 0,9	7	1,40	25,4	26	36,4	660	690
FT	60 × 60 × 0,95	4	1,44	28,5	30	43,2	855	885

^{*} incl. weight of a wooden pallet $/ \pm 5\%$

The packing data for decors - listels, insertos and cut pieces - are always shown below the picture of the decor directly in the catalogue.