



### TECHNICAL SPECIFICATION 600x600MM | 400x400MM / 12MM DURATECH

S.No.	PROPERTY	GROUP B/A - ISO 13006/EN-176	GROUP B/A IS :15622:2017	KAJARIA VITRO VALUE	TEST ACCORDING TO
<b>Dimensions &amp; surface Quality</b>					
1.	Deviation in length and width	± 0.6%	± 0.1%	± 0.1%	ISO 10545:2/IS:13630 (P-1)
2.	Deviation in thickness	± 5%	± 5%	± 4%	ISO 10545:2/IS:13630 (P-1)
3.	Deviation in Straightness of sides	± 0.5%	± 0.5%	± 0.1%	ISO 10545:2/IS:13630 (P-1)
4.	Deviation in Rectangularity	± 0.6%	± 0.1%	± 0.1%	ISO 10545:2/IS:13630 (P-1)
5.	Deviation in Surface Flatness	± 0.5%	± 0.5%	± 0.2%	ISO 10545:2/IS:13630 (P-1)
6.	Surface Quality (%)	Minimum 95%	Minimum 95%	No visible defects	ISO 10545:2/IS:13630 (P-1)
<b>Physical characteristics</b>					
7.	Scratch Hardness of surface Moh's scale	Min. 6	Min. 5	6	EN-101/IS:13630 (P-13)
8.	Water absorption	≤0.5%	Averages 0.08. Individual maximum 0.10%	<0.1%	ISO 10545:3/IS: 13630 (P-2)
9.	Moisture Expansion	Nil	-	Nil	ISO 10545:10
10.	SurfaceAbrasion Resistance	As per Mfg.	-	Min. Class-4	ISO 10545:7
<b>Mechanical characteristics</b>					
11.	Breaking strength	1300 N	Min 1300 N	>3000N	ISO 10545:4/IS: 13630 (P-6)
12.	Modulus of rupture	>35 N/mm <sup>2</sup>	Average 35. Individual minimum 32	≥40 N/mm <sup>2</sup>	ISO 10545:4/IS: 13630 (P-6)
13.	Impact resistance	Declared by manufacturer	Required	Min. 0.55	ISO 10545:5/IS:13630 (P-14)
<b>Safety characteristics</b>					
14.	Density	2.20 gm/cc	Min 2.20 gm/cc	2.30 gm/cc	ISO 10545:3
15.	Skid resistance (Friction coefficient )	≥0.4	-	≥0.5	ISO 10545:17
<b>Thermo photo characteristics</b>					
16.	Thermal shock resistance	Resistant to 10 cycles	Min 10 cycles	Pass min 10 cycles	ISO 10545:9/IS: 13630 (P-5)
17.	Co efficient of thermal expansion	9×10 <sup>-6</sup> K <sup>-1</sup> Max	6×10 <sup>-6</sup> K <sup>-1</sup> Max	<6×10 <sup>-6</sup> K <sup>-1</sup> Max	ISO 10545:8/IS:13630 (P-4)
18.	Frost resistance	Resistant	Required	Resistant	ISO 10545:12/IS: 13630 (P-10)
19.	Crazing Resistance	As per Mfg.	-	Min 10 cycles	ISO 10545:11
<b>Chemical characteristics characteristics</b>					
20.	Stain Resistance	Min class-3	Required	Min conform to class-4'	ISO 10545:14
21.	Chemical Resistance HOUSE HOLD CHEMICAL & SWIMMING POOL SALT	min class-UB	Required	Conform to classes-UA'	ISO 10545:13/IS:13630 (P-7)
22.	Chemical Resistance LOW CONCENTRATIONS ACID & ALKALIES	min class-ULB	Required	Conform to classes-ULA'	ISO 10545:13/IS:13630 (P-7)
23.	Chemical Resistance HIGH CONCENTRATIONS ACID & ALKALIES	min class-UHB	Required	Conform to classes-UHA'	ISO 10545:13/IS:13630 (P-7)

### PACKING DETAILS

DIMENSIONS (MM)	NO. OF TILES / BOX	COVERAGE AREA
600x600	3 Pcs.	1.08 sqm.
400x400	5 Pcs.	0.80 sqm.

\* Vitrified tiles have resistance to most of the stains/chemicals but, it is recommended to take due care while laying and for day-to-day maintenance.  
 \* Resistance to acids & alkalies (Exception Hydrofluoric Acids & its Compounds)

### Technical Specification POLISHED VITRIFIED TILES (1000x1000 Solitaire Plus)

S. No.	PROPERTY	GROUP BIA ISO 13006/EN-176	GROUP BIA IS :15622:2017	KAJARIA VITRO VALUE	TEST ACCORDING TO
<b>Dimensions &amp; surface Quality</b>					
1.	Deviation in length and width	± 0.6%	± 0.1%	± 0.1%	ISO 10545:2/IS:13630 (P-1)
2.	Deviation in thickness	± 5%	± 4%	± 4%	ISO 10545:2/IS:13630 (P-1)
3.	Deviation in Straightness of sides	± 0.5%	± 0.4%	± 0.1%	ISO 10545:2/IS:13630 (P-1)
4.	Deviation in Rectangularity	± 0.6%	± 0.1%	± 0.1%	ISO 10545:2/IS:13630 (P-1)
5.	Deviation in Surface Flatness	± 0.5%	± 0.2%	± 0.2%	ISO 10545:2/IS:13630 (P-1)
6.	Surface Quality (%)	Minimum 95%	Minimum 95%	No visible defects	ISO 10545:2/IS:13630 (P-1)
7.	Glossiness with Nano	Declared by manufacturer	-	Minimum 90	ISO 2813 (Glossy meter)
<b>Physical characteristics</b>					
8.	Scratch Hardness of surface Moh's scale	Min. 6	Min. 5	Min. 5	EN-101/IS:13630 (P-13)
9.	Water absorption	≤ 0.5%	Averages 0.08, Individual maximum 0.10%	<0.05%	ISO 10545:3/IS: 13630 (P-2)
10.	Moisture Expansion	Nil	-	Nil	ISO 10545:10
11.	Deep Abrasion	max 175 mm	Max 100 mm <sup>3</sup>	≤ 144mm <sup>3</sup>	ISO 10545:6/IS:13630 (P-12)
<b>Mechanical characteristics</b>					
12.	Breaking strength	1300 N	Min 1300 N	≥ 3000 N	ISO 10545:4/IS: 13630 (P-6)
13.	Modulus of rupture	>35 N/mm <sup>2</sup>	Average 35, Individual minimum 32	≥ 40 N/mm <sup>2</sup>	ISO 10545:4/IS: 13630 (P-6)
<b>Safety characteristics</b>					
14.	Density	2.20 gm/cc	Min 2.20 gm/cc	2.34 gm/cc	DIN 51082/IS: 13630 (P-2)
15.	Skid resistance (Friction coefficient)	≥ 0.4	-	≥ 0.4	ISO 10545:17
<b>Thermo photo characteristics</b>					
16.	Thermal shock resistance	Resistant to 10 cycles	Min 10 cycles	Pass min 10 cycles	ISO 10545:9/IS: 13630 (P-5)
17.	Co efficient of thermal expansion	9×10 <sup>-6</sup> K <sup>-1</sup> Max	6×10 <sup>-6</sup> K <sup>-1</sup> Max	<6×10 <sup>-6</sup> K <sup>-1</sup> Max	ISO 10545:8/IS:13630 (P-4)
18.	Frost resistance	Resistant	Resistant	Resistant	ISO 10545:12/IS: 13630 (P-10)
19.	Color Resistance to UV light	Resistant	-	Resistant	DIN 51094
<b>Chemical characteristics characteristics</b>					
20.	Stain Resistance	Min class-3	Required	Min conform to class-4*	ISO 10545:14
21.	Chemical Resistance HOUSE HOLD CHEMICAL & SWIMMING POOL SALT	Min class-UB	Required	Conform to classes-UA*	ISO 10545:13/IS:13630 (P-7)
22.	Chemical Resistance LOW CONCENTRATIONS ACID & ALKALIES	Min class-ULB	Required	Conform to classes-ULA*	ISO 10545:13/IS:13630 (P-7)
23.	Chemical Resistance HIGH CONCENTRATIONS ACID & ALKALIES	Min class-UHB	Required	Conform to classes-UHA*	ISO 10545:13/IS:13630 (P-7)

## TECHNICAL SPECIFICATION - POLISHED VITRIFIED TILES

S. No.	Property	Group B1a - ISO 13006 / EN - 176	Group B1a IS :15622:2017	Kajaria Vitro Value	Test According to
<b>Dimensions &amp; surface Quality</b>					
1.	Deviation in length and width	± 0.6%	± 0.1%	± 0.1%	ISO 10545:2/IS:13630 (P-1)
2.	Deviation in thickness	± 5%	± 4%	± 4%	ISO 10545:2/IS:13630 (P-1)
3.	Deviation in Straightness of sides	± 0.5%	± 0.4%	± 0.1%	ISO 10545:2/IS:13630 (P-1)
4.	Deviation in Rectangularity	± 0.6%	± 0.1%	± 0.1%	ISO 10545:2/IS:13630 (P-1)
5.	Deviation in Surface Flatness	± 0.5%	± 0.2%	± 0.2%	ISO 10545:2/IS:13630 (P-1)
6.	Surface Quality (%)	Minimum 95%	Minimum 95%	No visible defects	ISO 10545:2/IS:13630 (P-1)
7.	Glossiness with Nano	Declared by manufacturer	-	Minimum 90	ISO 2813 (Glossy meter)
<b>Physical characteristics</b>					
8.	Scratch Hardness of surface Moh's scale	Min. 6	Min. 5	Min. 5	EN-101/IS:13630 (P-13)
9.	Water absorption	≤0.5%	Averages 0.08, Individual Maximum, 1.0	≤0.05%	ISO 10545:3/IS:13630 (P-2)
10.	Moisture Expansion	Nil	-	Nil	ISO 10545:10
11.	Deep Abrasion	max 175 mm <sup>3</sup>	max 100 mm <sup>3</sup>	≤144mm <sup>3</sup>	ISO 10545:6/IS:13630 (P-12)
<b>Mechanical characteristics</b>					
12.	Breaking strength	1300 N	Min 1300	≥1700N	ISO 10545:4/IS:13630 (P-6)
13.	Modulus of rupture	≥35 N/mm <sup>2</sup>	Average 35, Individual minimum 32	≥35 N/mm <sup>2</sup>	ISO 10545:4/IS:13630 (P-6)
<b>Safety characteristics</b>					
14.	Density	2.20 gm/cc	Min 2.20 gm/cc	2.34 gm/cc	DIN 51082/IS:13630 (P-2)
15.	Skid resistance (Friction Co efficient)	≥0.4	-	≥0.4	ISO 10545:17
<b>Thermo photo characteristics</b>					
16.	Thermal shock resistance	Resistant to 10 cycles	Min 10 Cycles	Pass min 10 cycles	ISO 10545:9/IS:13630 (P-5)
17.	Coefficient of thermal expansion	9×10 <sup>-6</sup> /K <sup>°</sup> Max	6×10 <sup>-6</sup> /K <sup>°</sup> Max	<6×10 <sup>-6</sup> /K <sup>°</sup> Max	ISO 10545:8/IS:13630 (P-4)
18.	Frost resistance	Resistant	Required	Need to comply with the standard	ISO 10545:12/IS:13630 (P-10)
19.	Color Resistance to UV light	Resistant	-	Resistant	DIN 51094
<b>Chemical characteristics characteristics</b>					
20.	Stain Resistance	Min class-3	Required	Min conform to class-4*	ISO 10545:14
21.	Chemical Resistance HOUSE HOLD CHEMICAL & SWIMMING POOL SALT	min class-UB	Required	Conform to classes-UA*	ISO 10545:13/IS:13630 (P-7)
22.	Chemical Resistance LOW CONCENTRATIONS ACID & ALKALIES	min class-ULB	Required	Conform to classes-ULA*	ISO 10545:13/IS:13630 (P-7)
23.	Chemical Resistance HIGH CONCENTRATIONS ACID & ALKALIES	min class-ULB	Required	Conform to classes-UHA*	ISO 10545:13/IS:13630 (P-7)

## TECHNICAL SPECIFICATION - STONE ART

S. No.	Property	Group B1a - ISO 13006 / EN - 176	Group B1a IS :15622:2017	Kajaria Vitro Value	Test According to
<b>Dimensions &amp; surface Quality</b>					
1.	Deviation in length and width	± 0.6%	± 0.1%	± 0.1%	ISO 10545:2/IS:13630 (P-1)
2.	Deviation in thickness	± 5%	± 4%	± 4%	ISO 10545:2/IS:13630 (P-1)
3.	Deviation in Straightness of sides	± 0.5%	± 0.4%	± 0.1%	ISO 10545:2/IS:13630 (P-1)
4.	Deviation in Rectangularity	± 0.6%	± 0.1%	± 0.1%	ISO 10545:2/IS:13630 (P-1)
5.	Deviation in Surface Flatness	± 0.5%	± 0.2%	± 0.2%	ISO 10545:2/IS:13630 (P-1)
6.	Surface Quality (%)	Minimum 95%	Minimum 95%	No visible defects	ISO 10545:2/IS:13630 (P-1)
<b>Physical characteristics</b>					
7.	Scratch Hardness of surface Moh's scale	Min. 6	Min. 5	Min. 6	EN-101/IS:13630 (P-13)
8.	Water absorption	≤0.5%	Averages 0.08, Individual Maximum, 0.10%	≤0.05%	ISO 10545:3/IS:13630 (P-2)
9.	Moisture Expansion	Nil	-	Nil	ISO 10545:10
10.	Deep Abrasion	max 175 mm <sup>3</sup>	max 100 mm <sup>3</sup>	≤144mm <sup>3</sup>	ISO 10545:6/IS:13630 (P-12)
<b>Mechanical characteristics</b>					
11.	Breaking strength	1300 N	Min 1300 N	≥2000N	ISO 10545:4/IS:13630 (P-6)
12.	Modulus of rupture	≥35 N/mm <sup>2</sup>	Average 35, Individual minimum 32	≥40 N/mm <sup>2</sup>	ISO 10545:4/IS:13630 (P-6)
<b>Safety characteristics</b>					
13.	Density	2.20 gm/cc	Min 2.20 gm/cc	2.34 gm/cc	DIN 51082/IS:13630 (P-2)
14.	Skid resistance (Friction Co efficient)	≥0.4	-	≥0.4	ISO 10545:17
<b>Thermo photo characteristics</b>					
15.	Thermal shock resistance	Resistant to 10 cycles	Min 10 Cycles	Pass min 10 cycles	ISO 10545:9/IS:13630 (P-5)
16.	Coefficient of thermal expansion	9×10 <sup>-6</sup> /K <sup>°</sup> Max	6×10 <sup>-6</sup> /K <sup>°</sup> Max	<6×10 <sup>-6</sup> /K <sup>°</sup> Max	ISO 10545:8/IS:13630 (P-4)
17.	Frost resistance	Resistant	Required	Resistant	ISO 10545:12/IS:13630 (P-10)
18.	Color Resistance to UV light	Resistant	-	Resistant	DIN 51094
<b>Chemical characteristics characteristics</b>					
19.	Stain Resistance	Min class-3	Required	Min conform to class-4*	ISO 10545:14
20.	Chemical Resistance HOUSE HOLD CHEMICAL & SWIMMING POOL SALT	min class-UB	Required	Conform to classes-UA*	ISO 10545:13/IS:13630 (P-7)
21.	Chemical Resistance LOW CONCENTRATIONS ACID & ALKALIES	min class-ULB	Required	Conform to classes-ULA*	ISO 10545:13/IS:13630 (P-7)
22.	Chemical Resistance HIGH CONCENTRATIONS ACID & ALKALIES	min class-ULB	Required	Conform to classes-UHA*	ISO 10545:13/IS:13630 (P-7)

## TECHNICAL SPECIFICATION - FULL BODY VITRIFIED TILES

S. No.	CHARACTERISTIC	International Standards Group B1a- ISO 13006 Annx. G.	MEAN VALUE OF KAJARIA	TEST METHOD
<b>Dimensions &amp; surface Quality</b>				
1.	Deviation in length and width	± 0.6%	± 0.1%	ISO 10545:2
2.	Deviation in thickness	± 5%	± 4%	ISO 10545:2
3.	Deviation in Straightness of sides	± 0.5%	± 0.1%	ISO 10545:2
4.	Deviation in Rectangularity	± 0.6%	± 0.1%	ISO 10545:2
5.	Deviation in Surface Flatness	± 0.5%	± 0.2%	ISO 10545:2
6.	Surface Quality (%)	Minimum 95%	No visible defects	ISO 10545:2
<b>Physical characteristics</b>				
7.	Scratch Hardness of surface Moh's scale	Min. 6	Min. 6	ISO 10545:3
8.	Water absorption	≤ 0.5%	≤ 0.05%	ISO 10545:3
9.	Moisture Expansion	Nil	Nil	ISO 10545:10
10.	Surface Abrasion Resistance	max 175mm <sup>3</sup>	≤ 144mm <sup>3</sup>	ISO 10545:7
<b>Mechanical characteristics</b>				
11.	Breaking strength	1300 n	≥ 2200 n	ISO 10545:4
12.	Modulus of rupture	≥ 35 N/mm <sup>2</sup>	≥ 35 N/mm <sup>2</sup>	ISO 10545:4
13.	Impact resistance	Declared by manufacturer	no indentation or cracking	ISO 10545:5
<b>Safety characteristics</b>				
<b>Density</b>				
14.	Density	2.20 gm/cc	2.34 gm/cc	DIN 51082
15.	Skid resistance	-	More than R10 (60x60cm x 9.7mm)	DIN 51130
<b>Thermo photo characteristics</b>				
16.	Thermal shock resistance	Resistant to 10 cycles	Pass min 10 cycles	ISO 10545:9
17.	Co efficient of thermal expansion	9x10 <sup>-6</sup> K <sup>-1</sup> Max	<6x10 <sup>-6</sup> K <sup>-1</sup> Max	ISO 10545:8
18.	Frost resistance	Resistant	Resistant	ISO 10545:12
19.	Color Resistance to UV light	Resistant	Resistant	ISO 10545:16
<b>Chemical characteristics</b>				
20.	Stain Resistance	Resistant	Resistant	ISO 10545:14
21.	Chemical Resistance HOUSE HOLD CHEMICAL & SWIMMING POOL SALT	min class-UB	Conform to classes-UA	ISO 10545:13
22.	Chemical Resistance LOW CONCENTRATIONS ACID & ALKALIES	min class-ULB	Conform to classes-ULA	ISO 10545:13
23.	Chemical Resistance HIGH CONCENTRATIONS ACID & ALKALIES	min class-ULB	Conform to classes-UHA	ISO 10545:13

## PACKING DETAILS

S. No.	Dimensions ( mm)	No. of tiles / box	Coverage Area
2.	600x1200	2 Pcs.	1.44 Sq. Mtr.
3.	1000x1000	2 Pcs.	2.00 Sq. Mtr.
4.	800x800	3 Pcs.	1.92 Sq. Mtr.
5.	600x600	4 Pcs.	1.44 Sq. Mtr.
6.	Stone Art 600x600	4 Pcs.	1.44 Sq. Mtr.
7.	Duratech 400x400	5 Pcs.	0.80 Sq. Mtr.

\* Vitrified tiles have resistance to most of the stains/chemicals but, it is recommended to take due care while laying and for day-to-day maintenance.  
# Resistance to acids & alkalies (Exception Hydrofluoric Acids & its Compounds)

1. Colours in the catalog are as accurate as printing process allows
2. Sizes mentioned in the catalog are the nominal sizes only.
3. Conforming to ISO requirements, technical specifications for Kajaria tiles are applicable only for 1st quality tiles.
4. Please inspect all tiles prior to installation; company will not entertain complaints, once tiles are laid / fixed.
5. For better laying, please follow the instructions on the packaging box.