

 orientbell  
tiles

# SAHARA SERIES

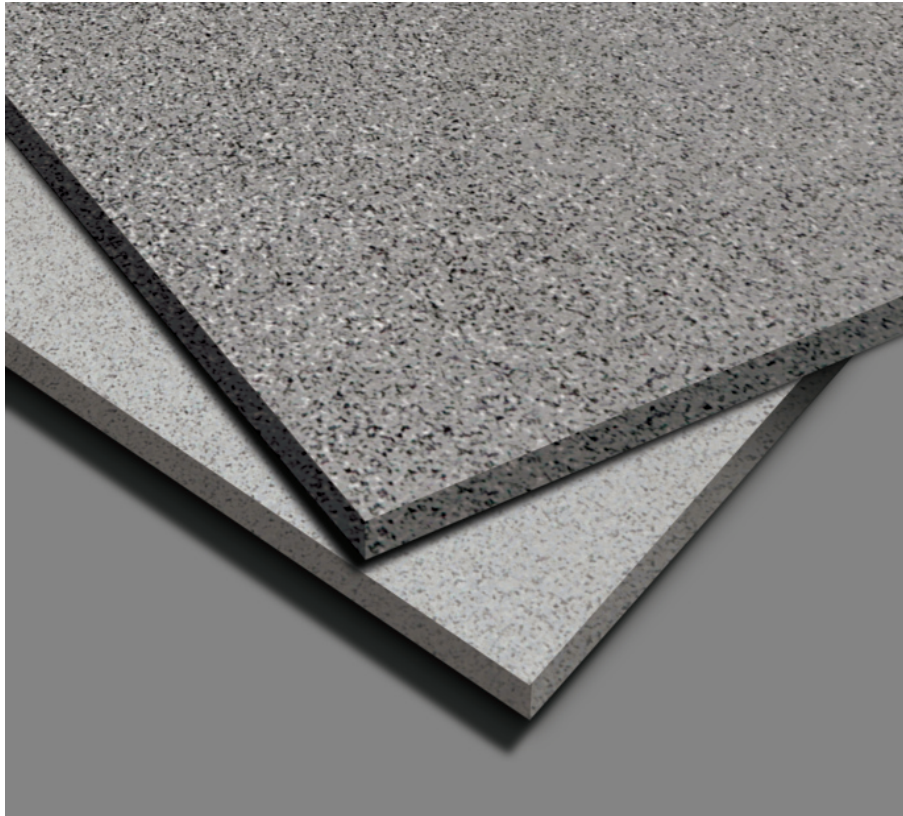
*Made With Diligence*

Full Body Vitrified Tiles

600x600 mm



# The Grains Story



The full body Sahara Series is a work of diligence, providing homogeneous body tiles. The aesthetic appeal of the tile remains intact even after prolonged exposure to wear and tear, making it the most preferred durable tile.

All the five designs – Sahara Nero, Sahara Creama, Sahara Beige, Sahara Gris and Sahara P Kota Green are made by mixing natural clay, feldspar, quartz and natural pigments. Our R & D experts use special pigment grains for even dispersion, ensuring minimal color variation across batches.

All the touch points like silos, lifting machines, conveyor belts where the mixture passes through are treated with utmost care to nullify impurities. As a precautionary measure, even the conveyor belt is covered to avoid dust.

And while the team ensures the consistency between the batches, the quality team works vigilantly to ensure that every batch meets the highest MOR standards.

The process of diligence thus makes the full body replete with functional USP(s) of higher durability and high breaking strength.



SAHARA BEIGE



SAHARA GRIS



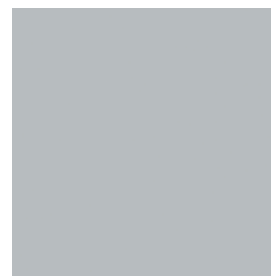
SAHARA P KOTA GREEN



SAHARA CREAMA



SAHARA GOLD



SAHARA PLAIN GREY



SAHARA NERO

## Product Features:



HIGH STRENGTH



SCRATCH RESISTANT



ANTI-SKID



CHEMICAL RESISTANT



LOW MAINTENANCE



ECO FRIENDLY



SAHARA CREAMA



SAHARA GRIS



SAHARA BEIGE



NEW



SAHARA PLAIN GREY

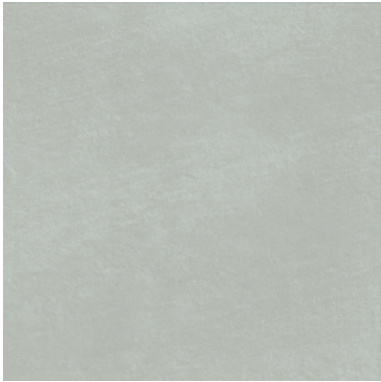


**NEW**



SAHARA GOLD





SAHARA P KOTA GREEN



SAHARA NERO





SAHARA ROCK BEIGE

**ALSO AVAILABLE IN ROCK FINISH**



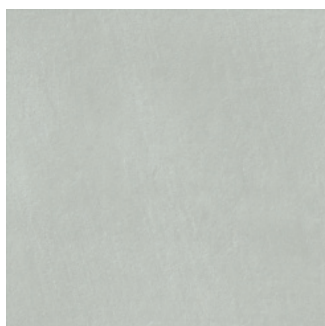
SAHARA ROCK NERO



SAHARA ROCK CREAMA



SAHARA ROCK BEIGE



SAHARA ROCK P KOTA GREEN



SAHARA ROCK GRIS

# FULL BODY VITRIFIED TILES ADVANTAGES OVER KOTA STONE



Wear and Tear

Full body vitrified tiles are made by verification process and have a homogenous body. They can withstand heavy footfall since the MOH is 6 on scratch hardness test. The strength to resist weight does not hamper the aesthetic appeal of the tiles. While the continuous usage of Kota stone might result in flaking.



Color Variation

Full body tile shade has a slight variation ( 5-10% ). But the quality & shade is unpredictable for Kota Stone being a natural product.



Stain Resistance

Full Body Tiles can resist stains due to an invisible glaze layer unlike in natural stone. Kota stone is porous, and hence susceptible to staining from spills & drops



Chemical Resistance

Kota stone is not acid and alkali resistant and can be stained easily, whereas full body tiles are chemical restraint and this has been tested & certified in internal & external labs.



Water Absorbtion

Full body tiles have almost negligible water absorption (less than 0.08%), whereas Kota stone has slightly higher water absorption, approx. 0.31% (Source : Scribd). Hence, Full Body Tiles are most suitable for spaces with exposure to water and moisture.



Slip Resistance

Full body tiles are matte finish & to keep the friction high even when the surface is wet. On the other hand, Kota stone have the tendency of being slippery.



Installation Process

Full body vitrified Tiles are easy to install once the surface is prepared, while for Kota stone you need to polish it several times after installation leading to a noisy and cumbersome process. In addition, Kota stone may require polishing later to maintain its sheen.



Building Weight

Each tile of the Sahara series (of 600x600mm size) weighs approximately 6.5kg +/- 0.3kg,. A Kota stone of similar size with 15mm thickness weighs around 20kg which eventually adds to the weight of the entire structure (building). Comparatively the lighter weight of Sahara full body vitrified tiles makes them the ideal choice.





# SAHARA SERIES

*Made With Diligence*



## HEAVY DUTY RANGE

Full Body Vitrified Tiles

600x600 mm



Introducing Heavy Duty range catering to all your needs.

Strong and Durable with extra thickness having high MOR value and breaking strength, it can be applied on high traffic areas or areas with vehicle movement.

High MOR value make it endure more stress whereas extra thickness prevents it from breaking.

With almost negligible water absorption, this range is available in five colors.



SAHARA HEAVY CREAMA



SAHARA HEAVY BEIGE



SAHARA HEAVY GRIS



SAHARA HEAVY NERO



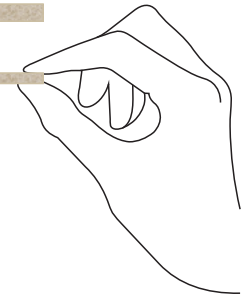
SAHARA HEAVY P KOTA GREEN

## THICKNESS

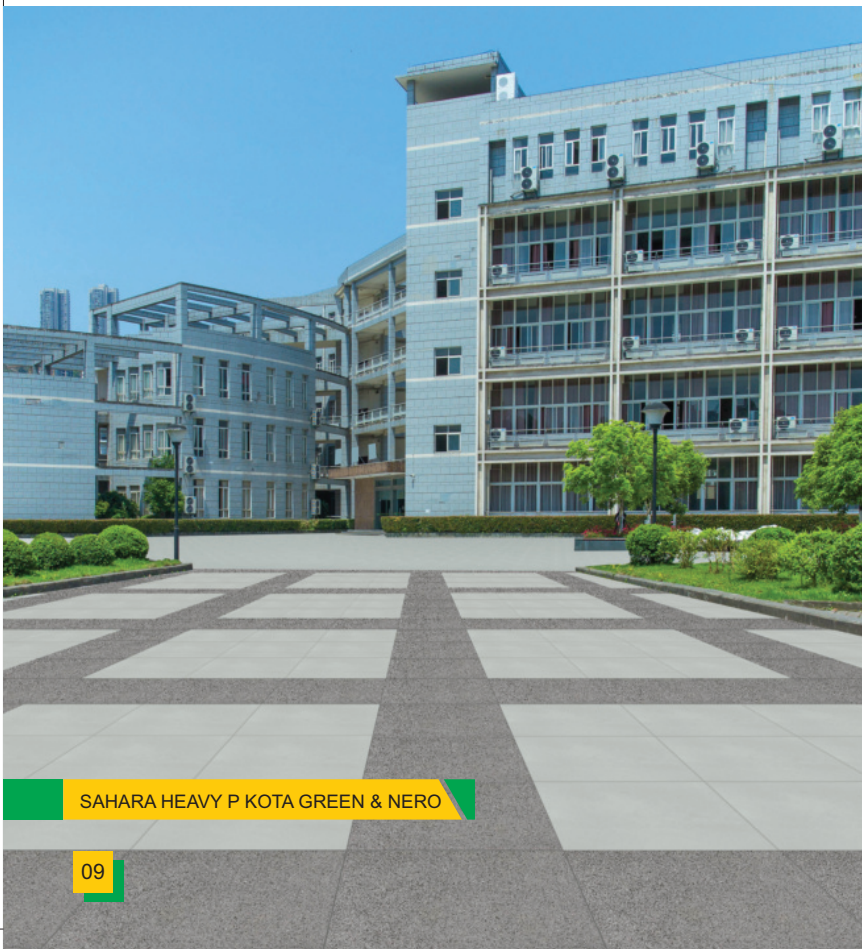
Heavy Tiles



Regular Tiles



MOQ : 2000 Sq. Meter Make to Order : 45 Days



SAHARA HEAVY P KOTA GREEN

SAHARA HEAVY P KOTA GREEN & NERO



SAHARA HEAVY BEIGE



SAHARA HEAVY GRIS



**SAHARA SERIES**  
*Made With Diligence*

**HEAVY DUTY RANGE**



SAHARA HEAVY CREAMA



SAHARA HEAVY NERO



SAHARA HEAVY NERO & GRIS

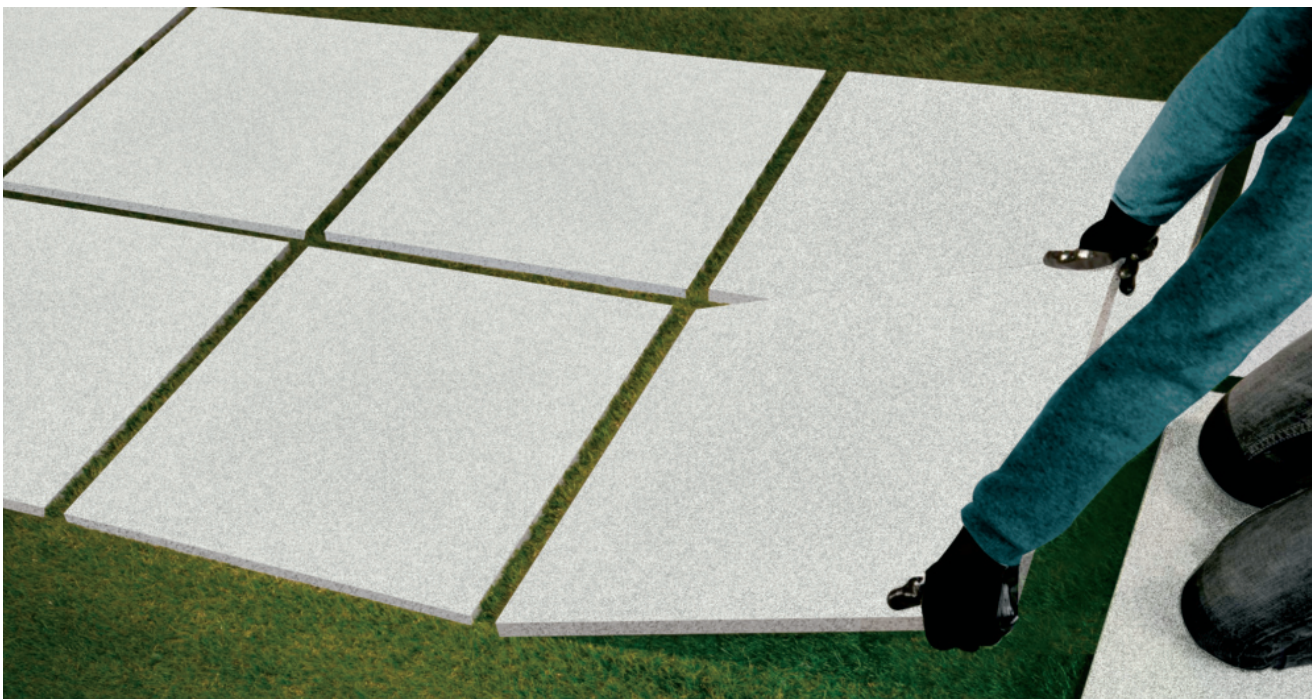


## METHODS OF INSTALLATION



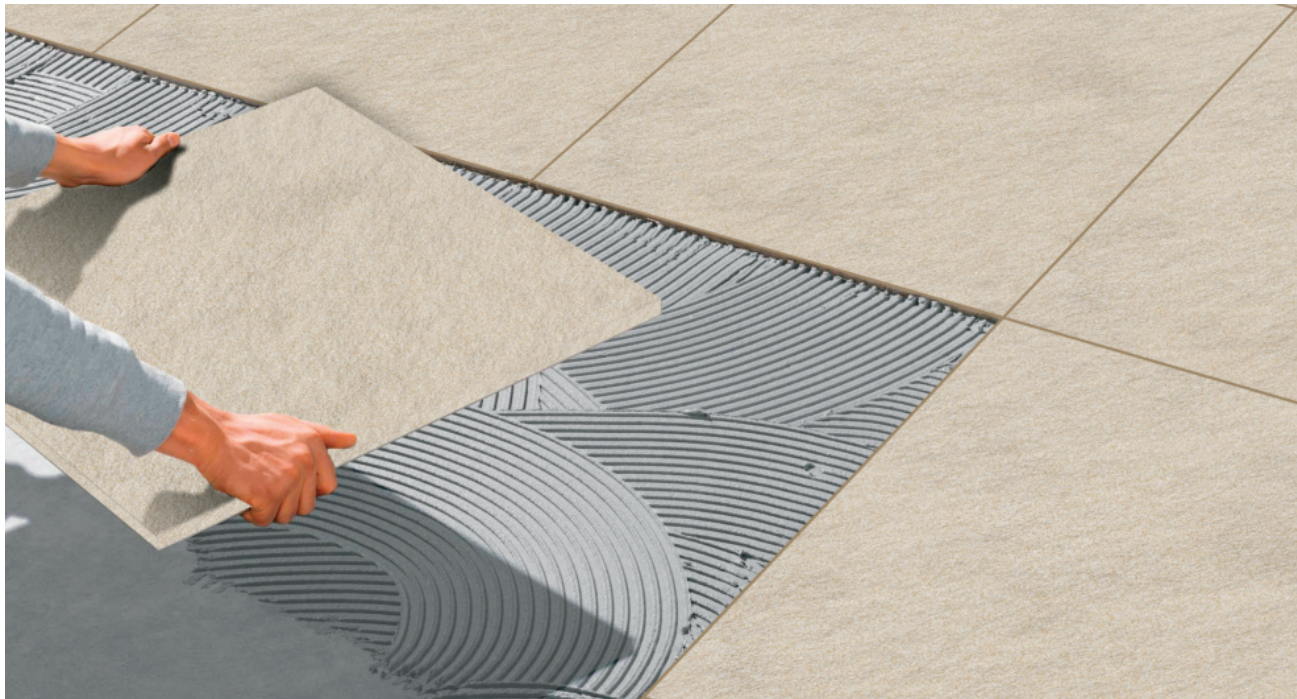
### **RAISED FLOORING INSTALLATION WITH SUPPORT**

These tiles can be installed on a raised platform on pedestals. This creates a gap between the tile & flooring providing a space for wire, AC Ducts etc. This gap can be accessed and inspected at convenience without damaging the tiles while allowing wires, ducts to be hidden away.



### **DRY INSTALLATION GRASS\***

In this method the tiles are directly installed onto the grass for pedestrian pathways that can be walked upon immediately post-installation but are not suitable for movement of vehicles. It is easy & quick to install and does not require use of adhesives for installation.



### **USING TRADITIONAL ADHESIVES**

The traditional adhesive installation provides an excellent bonding between the substrate and the tiles. This installation method represents the perfect solution for pedestrian lanes as well as lanes with vehicular movement.



### **DRY INSTALLATION LEVEL ON GRAVEL/SAND\***

The dry installation method positions the tiles directly onto the substrates in gravel or sand to create pedestrian pathways that can be walked upon immediately. It is an easy & quick application method and does not require adhesive for installation purpose.

\*Please note spacer is mandatory when tiles are used for parking.

# TECHNICAL SPECIFICATIONS

## Full Body Vitrified Tiles (Plain & Rock Finish)

Packing Details			
Size (In mm.)	No. of Tiles Per Carton	Covered Area Per Carton	
		( In Sq. Mtr. )	( In Sq. Ft. )
600X600 mm (SKD)	4	1.44	15.50

As per Indian Standard (IS 15622:2017) Group B Ia			
Characteristics	Standard Test Method	IS 15622 Requirements	OBL Norms
<b>Dimension &amp; Surface Quality</b>			
Deviation in Size (length & Width)	IS 13630 Part 1	± 0.1 %	± 0.1 % (Max)
Deviation in thickness		± 5.0 %	± 3.0 % (Max)
Straightness of sides		± 0.1 %	± 0.1 % (Max)
Rectangularity		± 0.1 %	± 0.1 % (Max)
Surface Flatness		± 0.5 %	± 0.2 % (Max) 😊😊
Surface Quality		Min 95% of the tiles shall be free from visible defects that would impair the appearance of a major area of the tile	Min. 95%
<b>Physical Properties</b>			
Water absorption %	IS 13630 Part 2	Average ≤0.08%, individual 0.10% Max.	Average ≤0.08% 😊
Modulus of rupture N/mm <sup>2</sup>	IS 13630 Part 6	Average 35, individual 32 Min.	Min 43 N/mm <sup>2</sup> 😊😊
Breaking Strength N	IS 13630 Part 6	700 Min for thickness <7.5mm, 1300 Minimum for Thickness ≥7.5 mm	Min 1600 N 😊😊
Moisture Expansion	IS 13630 Part 3	0.02 Max	Conforms
Scratch hardness (Moh's Scale)	IS 13630 Part 13	5 Min	7 min 😊😊
Resistance to surface abrasion of glaze tiles Class I to V (Applicable for floor applications only)	IS 13630 Part 11	Min II	Class- V 😊
Linear thermal expansion Co-efficient	IS 13630 Part 4	6x10 <sup>-6</sup> max	6x10 <sup>-6</sup> max
Thermal Shock Resistance	IS 13630 Part 5	10 Cycle Min	Passed
Impact Resistance	IS 13630 Part 14	0.55, Min	0.75
Coefficient of Friction (Regular Plain Finish)	ISO 10545 Part 17	Manufacturer to declare value where required	PTV >40
Coefficient of Friction (Rock Finish)	ISO 10545 Part 17	Manufacturer to declare value where required	PTV >60
Frost Resistance	IS 13630 Part 10	Required if agreed to between manufacturer and purchaser	50 cycle passed
Resistance to deep abrasion of unglazed tiles	IS 13630 Part 12	140, Max	Not Applicable
Bulk density g/cc	IS 13630 Part 2	2.2, Min	2.2, Min
<b>Chemical Properties</b>			
Stain resistant Glazed tiles	IS:13630 Part 8	Class 1 Min	Class 1
Resistance to Household chemicals, Resistance to acids & alkalis (Except HF)	IS: 4457:2007	Resistant	No Visual Change



# TECHNICAL SPECIFICATIONS

## Full Body Vitrified Tiles (Heavy Duty Range)

### Packing Details

Size (In mm.)	No. of Tiles Per Carton	Covered Area Per Carton	
		( In Sq. Mtr. )	( In Sq. Ft. )
600X600 mm (SKD)	3	1.08	11.63

### As per Indian Standard (IS 15622:2017) Group B Ia

Characteristics	Standard Test Method	IS 15622 Requirements	OBL Norms
<b>Dimension &amp; Surface Quality</b>			
Deviation in Size (length & Width)	IS 13630 Part 1	± 0.1 %	± 0.1 % (Max)
Deviation in thickness		± 5.0 %	± 3.0 % (Max)
Straightness of sides		± 0.1 %	± 0.1 % (Max)
Rectangularity		± 0.1 %	± 0.1 % (Max)
Surface Flatness		± 0.5 %	± 0.2 % (Max) ☺☺
Surface Quality		Min 95% of the tiles shall be free from visible defects that would impair the appearance of a major area of the tile	Min. 95%
<b>Physical Properties</b>			
Water absorption %	IS 13630 Part 2	Average ≤0.08%, individual 0.10% Max.	Average ≤0.08% ☺
Modulus of rupture N/mm <sup>2</sup>	IS 13630 Part 6	Average 35, individual 32 Min.	Min 45 N/mm <sup>2</sup> ☺☺
Breaking Strength N	IS 13630 Part 6	700 Min for thickness <7.5mm, 1300 Minimum for Thickness ≥7.5 mm	Min 6000 N ☺☺
Moisture Expansion	IS 13630 Part 3	0.02 Max	Conforms
Scratch hardness (Moh's Scale)	IS 13630 Part 13	5 Min	7 min ☺☺
Resistance to surface abrasion of glaze tiles Class I to V (Applicable for floor applications only)	IS 13630 Part 11	Min II	Class- V ☺
Linear thermal expansion Co-efficient	IS 13630 Part 4	6x10 <sup>-6</sup> max	6x10 <sup>-6</sup> max
Thermal Shock Resistance	IS 13630 Part 5	10 Cycle Min	Passed
Impact Resistance	IS 13630 Part 14	0.55, Min	>0.8
Coefficient of Friction	ISO 10545 Part 17	Manufacturer to declare value where required	PTV >40
Frost Resistance	IS 13630 Part 10	Required if agreed to between manufacturer and purchaser	50 cycle passed
Resistance to deep abrasion of unglazed tiles	IS 13630 Part 12	140, Max	Not Applicable
Bulk density g/cc	IS 13630 Part 2	2.2, Min	2.2, Min
<b>Chemical Properties</b>			
Stain resistant Glazed tiles	IS:13630 Part 8	Class 1 Min	Class 1
Resistance to Household chemicals, Resistance to acids & alkalis (Except HF)	IS: 4457:2007	Resistant	No Visual Change

NOTE: Certain amount of Size and Shade variation is inherent in all ceramic products. Within the limits of printed material, the colors and aesthetics of the products correspond closely to those of illustrated products. Prospective customers are advised to inspect a sample of the tile before ordering and laying. At all points of time, the company liability is restricted to the purchase value of tiles.

Every effort has been made to ensure the accuracy of the information given. However, the company reserves the right to delete & change, any of the items, colors, sizes & technical specifications without any prior notice.





## Making Tile Selection Easier



Find tiles similar to a reference image



Tiles selected by you in your room



Visualise selected tiles & get a quote



Share layout for a personalised render\*

[www.orientbell.com](http://www.orientbell.com)

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