

# SAHARA SERIES

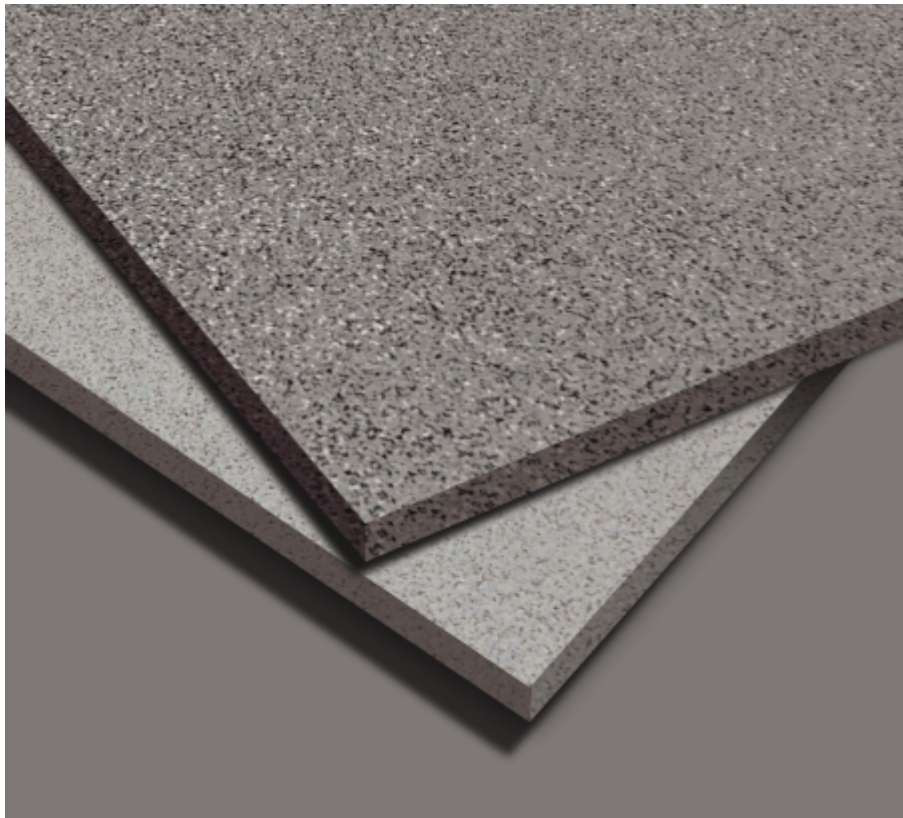
*Made With Diligence*

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 a mixing natural clay, feldspar, quartz and natural pigments. Our manufacturing 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 belts are covered to prevent impure dust.

And while all this is done to ensure similarity between batches, quality team works to guarantee that every batch meets the high MOR standard.

The process Diligence thus makes our full body tiles replete with functional USP's of higher durability and higher breaking strength.



SAHARA CREAMA



SAHARA BEIGE



SAHARA GRIS



SAHARA NERO



SAHARA P KOTA GREEN

## Product Features:



HIGH MOR



ECO FRIENDLY



ANTI-SKID



SCRATCH RESISTANT



CHEMICAL RESISTANT



LOW MAINTENANCE





SAHARA NERO



SAHARA NERO



SAHARA P KOTA GREEN

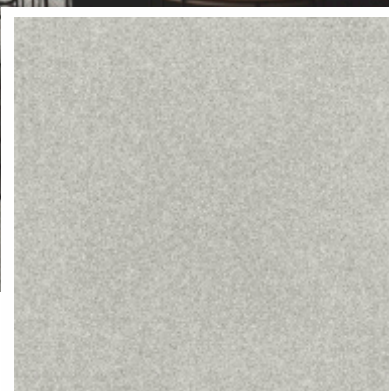


SAHARA P KOTA GREEN





SAHARA GRIS



SAHARA GRIS



SAHARA CREAMA



SAHARA CREAMA





SAHARA ROCK BEIGE

## ALSO AVAILABLE IN ROCK FINISH



SAHARA ROCK NERO



SAHARA ROCK CREAMA



SAHARA ROCK BEIGE



SAHARA ROCK GRIS

## SAHARA P KOTA GREEN AVAILABLE IN ROCK & SLATE FINISH



SAHARA ROCK P KOTA GREEN



SAHARA SLATE P KOTA GREEN

MOQ : 3000 Sq. Meter  
Make to Order : 45 Days



# FULL BODY TILES ADVANTAGES OVER KOTA STONE



Wear and Tear

Full body tiles are made by vitrified process and have homogeneous body, they have better scratch hardness ( 6 on Mohs' scale ) than 3-4 for Kota Stone hence once installed they are ready to take heavy footfall and hence don't allow wear and tear keeping the aesthetic appeal of the surface remain intact, where as in stones slight chipping of the top layer happens.



Color Variation

Full body tile shade has very little variation ( 5-10% ), whereas stone being natural product, both quality and shade of the stone is unpredictable.



Stain Resistance

Full body tiles don't allow any kind of stains to remain on the surface due to invisible glaze layer on them, where as stone being a natural substance allows stains, household items like ketchup, jam, polish and tend to make surface sticky and ugly.



Chemical Resistance

Natural kota stone tends to react with acids & starts losing its sheen and aesthetics, where full body tiles don't react ( except hydrochloric acid and its derivatives ), infact our R&D team also certifies it with a test done in laboratory.



Water Absorbtion

Tile has almost negligible water absorption ( less than 0.08% ), where as stone has slightly higher approx. 0.31%, therefore making it suitable product for laying it where there is exposure to water and moisture, also provides better grip and breakage free



Slip Resistance

Full body tiles are matt finish & slip resistant flooring, unlike Kota stone, where sometimes highly polished stone tends to become slippery and become risky. Hence, many educational institutes like school and colleges are replacing their kota stone flooring with our full body tiles to keep the floor safer for the children



Installation Process

Tiles are readymade material, can be installed once after the surface is prepared, while for Kota stone you need to polish it for several times after installation hence leading to noisy and cumbersome process. Infact, you may need to do polish it after every 3-4 years to maintain its sheen.



Building Weight

For 600x600mm size, 9.5mm full body tiles weight approx 8kg where as kota stone of similar size and thickness 15mm weighs around 20kg thus making the surface weight higher, hence making the overall weight of the structure ( building ) more.





# SAHARA SERIES

*Made With Diligence*



Full Body Vitrified Tiles

600x600 mm | 15.5 mm

## HEAVY DUTY INDUSTRIAL TILES



Introducing 15.5MM thick full body vitrified tiles catering to all your needs of heavy duty industry tiling.

Strong and Durable range with extra thickness having high MOR value and breaking strength, it can be applied on high traffic 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

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



SAHARA HEAVY P KOTA GREEN



SAHARA HEAVY P KOTA GREEN

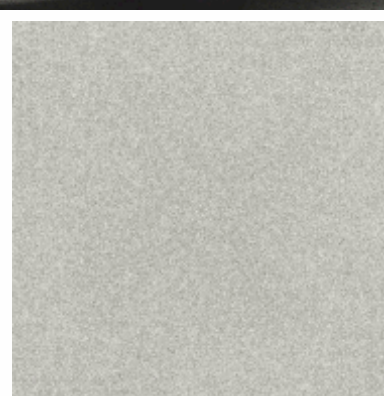


**SAHARA SERIES**  
*Made With Diligence*

# HEAVY DUTY INDUSTRIAL TILES



SAHARA HEAVY GRIS



SAHARA HEAVY GRIS



SAHARA HEAVY BEIGE



SAHARA HEAVY BEIGE



**SAHARA SERIES**  
*Made With Diligence*

# HEAVY DUTY INDUSTRIAL TILES



SAHARA HEAVY NERO



SAHARA HEAVY NERO



SAHARA HEAVY CREAMA



SAHARA HEAVY CREAMA





## ALSO AVAILABLE IN ROCK FINISH



SAHARA HEAVY ROCK NERO



SAHARA HEAVY ROCK CREAMA



SAHARA HEAVY ROCK BEIGE



SAHARA HEAVY ROCK GRIS

## SAHARA P KOTA GREEN AVAILABLE IN ROCK & SLATE FINISH



SAHARA HEAVY ROCK P KOTA GREEN



SAHARA HEAVY SLATE P KOTA GREEN

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



## METHODS OF INSTALLATION



### **RAISING FLOORING INSTALLATION WITH SUPPORT**

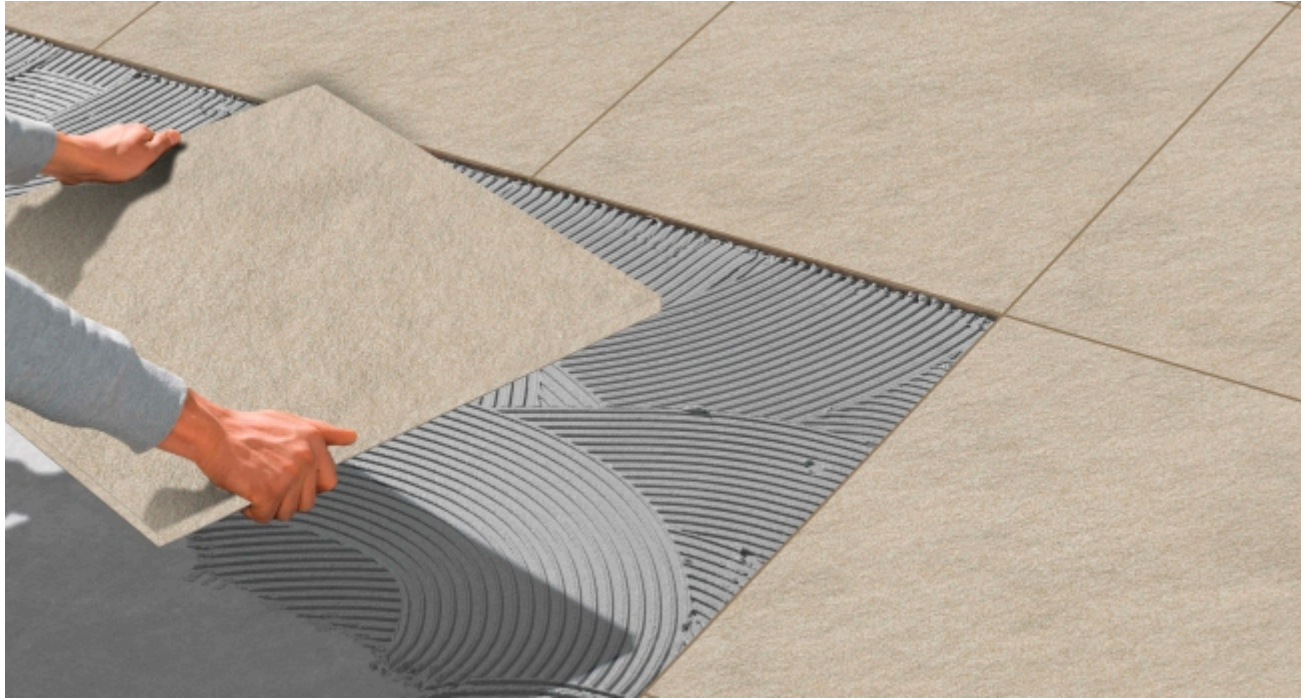
By raising the installation a technical gap of variable height is created between the tile and the flooring. This gap can be replaced and inspected any time without extirpating the surface that allows pipe ducts, wires, and lighting systems to hide



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

In this method the slabs are directly installed onto the grass to 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 ( both 9.5mm & 15.5mm )**



# TECHNICAL SPECIFICATIONS

## Full Body Vitrified Tiles 9.5 mm

Packing Details			
Size	No. of Tiles Per Carton	Covered Area Per Carton	
(In mm.)		( 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
Dimension & Surface Quality			
Deviation in Size (length & Width)	IS 13630 (Part 1):2006	± 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	Conform
Physical Properties			
Water absorption %	IS 13630 Part 2	Average ≤0.08%, individual 0.10% Max.	Average ≤0.08% 😊
Modulus of rupture N/mm²	IS 13630 Part 6	Average 35, individual 32 Min.	Min 45 N/mm2 😊😊
Breaking Strength N	IS 13630 Part 6	700 Min for thickness <7.5mm, 1300 Minimum for Thickness ≥7.5 mm	Min 2000 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 aonly)	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	ISO 10545 Part 17	Manufacturer to declare value where required	R-11 in pendulum test method.
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	Class AA
Bulk density g/cc	IS 13630 Part 2	2.2, Min	2.2, Min
Chemical Properties			
Resistance to Staining of Glazed Tiles	IS:13630 Part 8	Class 1 Min	Class 1
Resistance to Household Chemicals		Class AA	Class AA
Resistance to Acids and Alkalis (with exception of hydrofluoric acid and its compound)		Class AA	Class AA



# TECHNICAL SPECIFICATIONS

## Full Body Vitrified Tiles 15.5 mm

Packing Details			
Size	No. of Tiles Per Carton	Covered Area Per Carton	
(In mm.)		( 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
Dimension & Surface Quality			
Deviation in Size (length & Width)	IS 13630 (Part 1):2006	± 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	Conform
Physical Properties			
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/mm2 😊😊
Breaking Strength N	IS 13630 Part 6	700 Min for thickness <7.5mm, 1300 Minimum for Thickness ≥7.5 mm	Min 6250 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	ISO 10545 Part 17	Manufacturer to declare value where required	R-11 in pendulum test method.
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	Class AA
Bulk density g/cc	IS 13630 Part 2	2.2, Min	2.2, Min
Chemical Properties			
Resistance to Staining of Glazed Tiles	IS:13630 Part 8	Class 1 Min	Class 1
Resistance to Household Chemicals		Class AA	Class AA
Resistance to Acids and Alkalis (with exception of hydrofluoric acid and its compound)		Class AA	Class AA

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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