







About OBL

Orient Bell Limited (OBL) is amongst the largest manufacturers of Wall and Floor Tiles. Established in 1977, OBL has been a pioneer in the Industry with a focus on customer-centric innovation.

First to manufacture ultra-vitrified tiles, new product designs & development is a continuous process at OBL. As a result it has an extensive range of tiles with various finishes & textures. It has 4 patent-pending technologies: Forever Tiles, GermFree Tiles, Cool Tiles & Life Tiles.

To display extensive range of tiles, we have a chain of signature showrooms. Privileged to be associated with premier architects and construction agencies of the country, it also counts most leading developers as well as government & public sector institutions as its customers.



- The ISO 9001:2015 accreditation for our quality control management systems reflects the quest for manufacturing international standard products.
- In 2015 our Sikandarabad plant was awarded with prestigious ISI certification for its products.
- In May 2000, OBL was awarded ISO 14001 certification by the internationally recognised BSI Management Systems, UK.
- Our manufacturing units are ISO 14001:2015 certified, the most complete and global expression for an environment friendly industrial company.
- We have been awarded OHSAS 18001 Certification for Health & Safety Standards. No waste water is ever discharged from our factory.
- We were also awarded with "Certificate Of Merit" in 'National Energy Conservation Award' 2016 organised by Ministry of Power for saving Power and Fuel consumption.





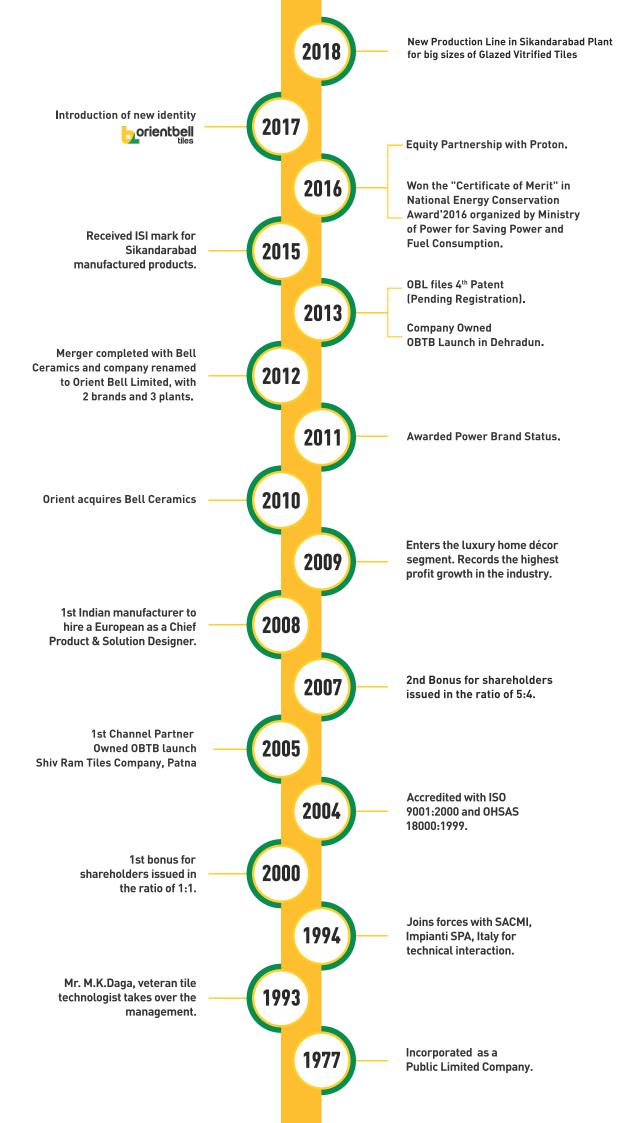














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How to choose a tile of right colour for your healthcare setup*



Orient Bell has tiles in wide range of colors and designs. Tile of right Colour design can play a part in the healing process and add to a sense of well-being. It is well known that room colours influence human behaviour. Several studies have proved that our moods and emotions are affected by the surrounding colours. Some colours offer a smoothing effect while some have chances to remain aggressive.

Neutral colours such as beige, grey and cream can be very functional and useful colours for interiors. They are soft and can provide a warm effect, free of sharpness and also moderately stimulating. A tint of a beige wall colour can be used for ceilings. Note that colours which are greyed-off or toned down are relaxing and recede visually. This has been found to be very calming.

When deciding the colours of tiles for healthcare setup, it is even more important to be careful about the effects of colours and combinations. Each department should be done up with a colour suitable for that department.

^{*}The below sources have been referred for the details on colors, choosing a suitable color, affects of colors, suggested colors for different departments, etc. in various sections of this brochure:

[•]NHS Wales, UK (http://www.wales.nhs.uk/sites3/Documents/254/B(01)02%20Lighting%20and%20colour.pdf)

 $[•] https://www.building better health care.com/news/article_page/The_psychology_of_colour/95179$

 $[\]bullet Coalition \ for \ Health \ Environments \ Research: \ Color \ in \ Health care \ Environments \ By \ Ruth \ Brent \ Tofle, Ph.D. \ Benyamin \ Schwarz, Ph.D. \ So-Yeon \ Yoon,$

 $MA\ Andrea\ Max-Royale,\ M.E. Des.\ (https://www.health design.org/sites/default/files/color_in_hc_environ.pdf)$

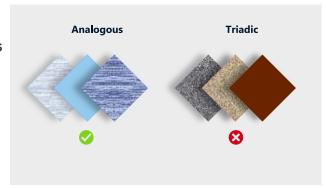
Colour - Design Guide for Hospital Areas

Use tonal contrast: to provide a difference between adjacent surfaces (steps, wall and floor, doorways, etc.) to enhance visibility for users, especially the elderly or visually impaired. Light and dark colored tiles in the same color can be used to achieve this.



Limit the colour palette when choosing internal finish materials, using a lot of differing colours may lead to an environment which is too visually busy, leading to confusion and unease. It may also cause maintenance and storage problems of materials for repair.

Coordinate colours: try to coordinate colours of materials such as flooring with other finishing materials used. For example, the colour reference of the floor tile, wall tile and ceiling can later be extended to curtains.





- Colour design and contrast for the visually impaired and older people:
 - Many visually impaired people can make out a certain level of contrast in everyday lighting conditions, so it is useful for walls and floors to be of different light reflectances. As a general rule , a 20–30% difference in light reflectance value is sufficient for most people to understand environments more easily.
- •Visually mark changes in floor gradients or slopes with different coloured tiles and contrast to alert people.
- •There should be strong colour-contrast tiles at the approaches to tops and bottoms of stairs and escalators

Zoning

Zoning can be done by use of different coloured tiles in different areas, like floors of rooms, Corridors, reception, OPD, etc. Can be of different colors to depict each zone.

With large number of patients with a wide variety of diseases moving in the premises, it is critical to prevent spread of infection.

Tiles can be used as markers to depict direction, separation and distancing:



Direction of movement in corridors

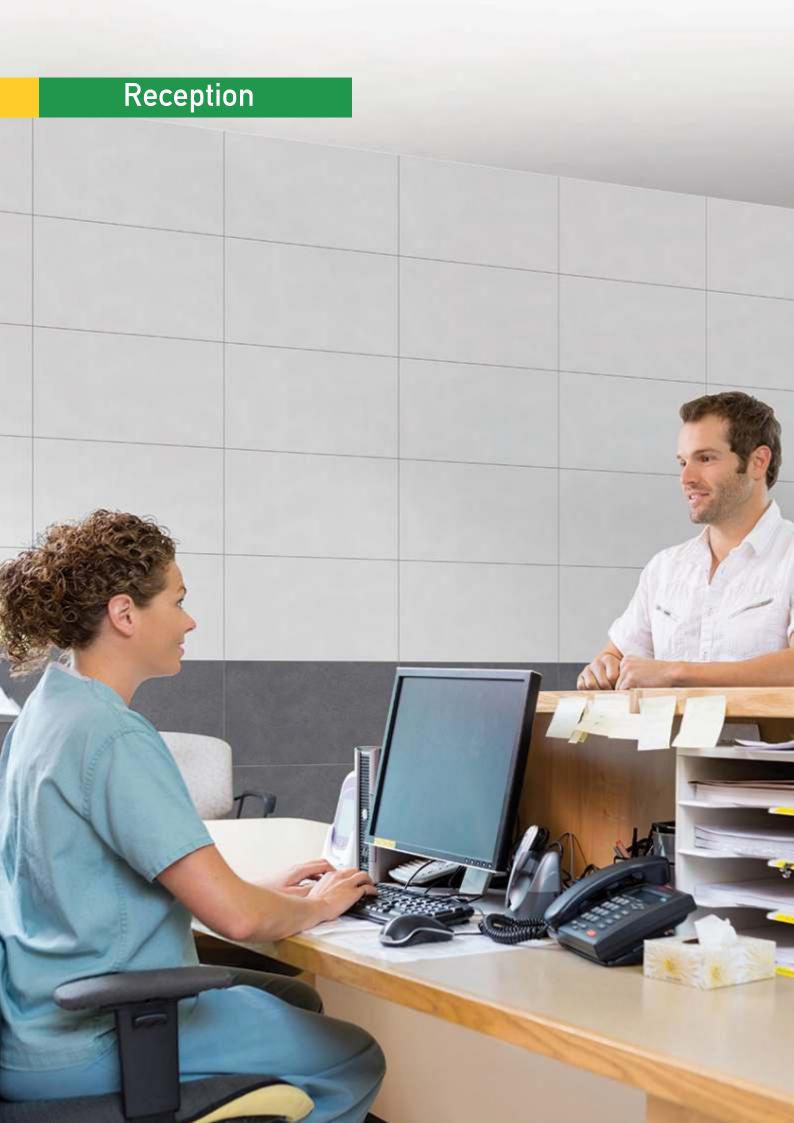


Distance to be maintained in high traffic areas like reception, billing and OPD.

Suggested Colors for Different Wards / Departments

There are colour preferences among staff for either practical or diagnostic reasons:

Ward / Department	Colour Suggestion		Reason for Recommendation
Reception / Entrance	White + Any Color		White gives spacious and most pleasant appeal. However, white alone gives an eerie feel and thus wall or floor tiles should have another colour as well.
Maternity Ward	Orange		Pleasantly stimulating, suitably powerful and energetic colour for mother and new born.
Men / Women (adult) Wards	Blue		Blue is known to lower blood pressure and is excellent as a healing colour. it is the most popular colour with adults.
Walls Across the setup	Beige / Grey / Cream		They are soft and provide a warm effect, free of sharpness and also moderately stimulating
Common Areas	Grey (toned down)		Appears relaxing.
OPD / Maternity	Do not Use Yellow	€	Section where skin tones need to be checked for jaundice should not have yellow in surroundings.
Mental Health	Do not use Red / Orange	8	These colours are related to aggression.
Across Any Section	Do not use strong dark blues	8	This is a very cold colour and adversely affects mood.
Dermatology	Do not use Orange	8	Staff in these units also reported that reds and oranges make patients feel itchy







SDM APOLIMA GERY DK



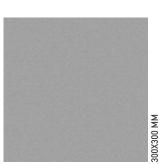
SDM APOLIMA GREY FL



SDM APOLIMA GERY LT



SDG SIGMA GRIS



SDM SIGMA GRIS FL



SDG SIGMA SILVER

300X600 mm / 300X450 mm

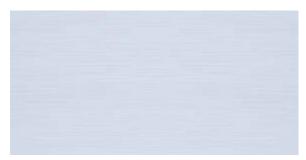




SDG SACRED BLUE DK



SDM SACRED BLUE FL



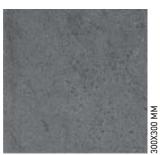
SDG SACRED BLUE LT



SDG LITHIA BROWN



SDG LITHIA GREY



SDM LITHIA BROWN FL



SDG CRARA BIANCO



SDF CRARA BIANCO FL







SDM TESSER BROWN



SDM TESSER BROWN FL



SDM TESSER BEIGE



SDM TRIANGLE SANDUNE



SDM TRIANGLE SANDUNE FL



SDM TRIANGLE BEIGE





SDG HOUSTON GREY DK



SDM HOUSTON GREY FL



SDG HOUSTON GREY LT







SDM KATIA GREY DK



SDF KATIA GREY FL



SDM KATIA GREY LT



SDG CALLISTO BEIGE



SDM CALLISTO BEIGE FL



SDG CALLISTO CREAMA





SDG YOGURT BIANCO

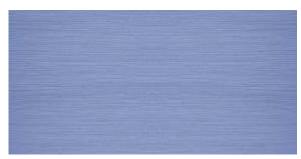


SDM YOGURT BIANCO FL



300X600 mm / 200X300 mm





SDG SACRED BLUE DK



SDM SACRED BLUE FL



SDG SACRED BLUE LT



PLAIN WHITE



SILVER GREY



PLAIN OCEAN BLUE







SDG HUNKER GREY DK



SDG HUNKER GREY LT



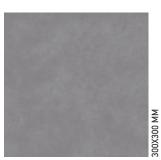
SDM HUNKER GREY FL



SDM TERRAZZO GREY DK



SDM TERRAZZO GREY LT



SDM TERRAZZO GREY FL



SDG MOROCCAN GREY DK



SDG MOROCCAN GREY LT



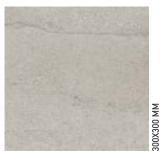
SDM MOROCCAN GREY FL



SDG CINZA GREY DK



SDG CINZA GREY LT



SDM CINZA GREY FL







SDG FLICKER SANDUNE



SDG FLICKER BEIGE



SDM FLICKER SANDUNE FL



SDM FINE BROWN DK



SDM FINE BROWN LT



SDM FINE BROWN FL



SDG MOROCCAN BEIGE DK



SDG MOROCCAN BEIGE LT



SDM MOROCCAN BEIGE DK FL



SDG PARADISE BEIGE DK



SDG PARADISE BEIGE LT



SDM PARADISE BEIGE FL







SDM ARGO GREY DK



SDF ARGO GREY FL



SDM ARGO GREY LT



SDG ELIAS GRIS DK



SDM ELIAS GRIS FL



SDG ELIAS GRIS LT

300X600 mm / 300X450 mm





SDM ARENA SANDUNE DK



SDF ARENA SANDUNE FL



SDM ARENA SANDUNE LT



SDG LINEAS GREY



SDM LINEAS GREY FL





CRAFT BEIGE



CRAFT GREY



CRAFT GREEN



CRAFT PINK



CRAFT BLUE



PICASSO BLUE



CREEP BLUE

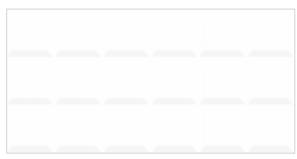


PICASSO PINK



300X600 mm / 300X450 mm





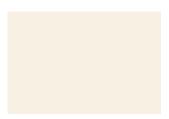
SDG MARRAKESH WHITE



SDG YOGURT BIANCO



SDG LINEAS GREY



PLAIN IVORY



SDM MARRAKESH WHITE FL



SDM YOGURT BIANCO FL

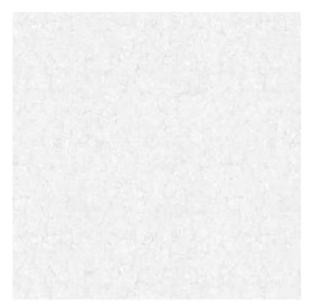


SDM LINEAS GREY FL

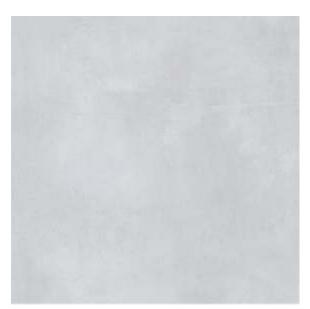


GVT / 600X600 mm









DGVT CEMENTO SKY



DGVT MARCO BROWN



DGVT CEMENTO GRIS





PGVT AUTHENTIC CREAMA



PGVT EMPERADOR GOLDEN BEIGE





ROCKER FLAKES GREY STONE

PGVT SUPER WHITE





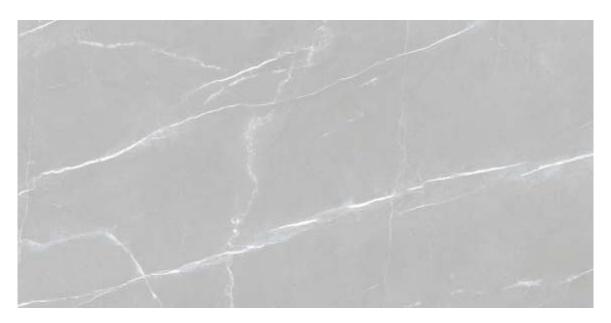
DGVT TASSERO BROWN



DGVT TASSERO GREY

GVT / 600X1200 mm





PGVT ARMANI GREY MARBLE

Packing Details				
Size	No. of Tiles Covered Area Per Carton			
(In mm.)	Per Carton	(In Sq. Mtr.)	(In Sq. ft.)	
600X600 (West Zone)	4	1.44	15.5	
600X1200 (West Zone)	2	1.44	15.5	

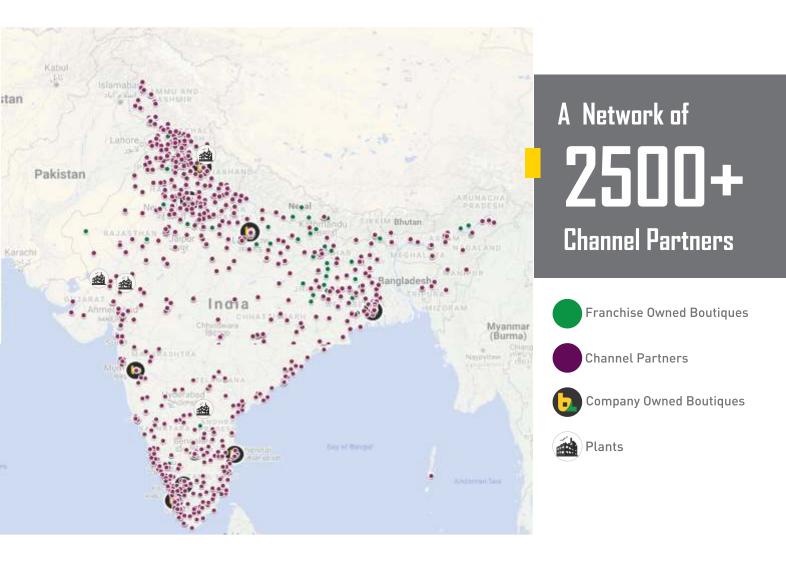
	Group B Ia as per	ISO 13006:2012 and Grou	up B Ib as per IS 1 <i>56</i>	522:201 <i>7</i>		
Characteristics	Test Methods	Requirement as per ISO 13006 ≤ 0.5 Group B Ia	Requirement as per IS 15622:2017 0.08 <e 3%="" b="" group="" ib<="" th="" ≤=""><th colspan="2">OBL Norms</th></e>		OBL Norms	
Dimension & Surface Quality			Unrectified	Rectified		
Deviation in Length & Width	-	±0.6%	± 0.4%	± 0.1 %	± 0.1 %	
Deviation in Thickness		±5%	± 5.0) %	± 4 %	
Straightness of Sides	10.10/00/0	±0.5%	± 0.3 %	± 0.1 %	± 0.1 %	
Rectangularity	IS 13630 (Part 1):2006	±0.5%	± 0.3 %	± 0.1 %	± 0.1 %	
Surface Flatness		±0.5%	±	± 0.5 %	± 0.2 %	99
Surface Quality		Min. 95 % tiles should be free from visible defects	Min. 95 % til free from vis		Conforms	
Physical Properties						
Water Absorption	IS 13630 (Part 2):2006	Avg ≤ 0.5, Individual max, 0.6	Avg 0.08 <e 3,="" ir<="" td="" ≤=""><td>dividual 3.3, Max</td><td>Avg ≤ 0.5, Individual max,</td><td>0.6</td></e>	dividual 3.3, Max	Avg ≤ 0.5, Individual max,	0.6
Modulus of Rupture in [N/mm²]	IS 13630 (Part 6):2006	Minimum 35, Individual 32, Min	Avg 30, Indivi	dual 27, Min	Avg 38 Min, Individual 35,	Min 😃 😃
Breaking Strength in N	IS 13630 (Part 6):2006	< 7.5 mm thickness: 700, Min ≥ 7.5 mm thickness: 1300, Min	< 7.5 mm thickness: 700, Min ≥ 7.5 mm thickness: 1100, Min		1 500, Min	⊕ ⊕
Moisture Expansion in mm/m	IS 13630 (Part 3):2006	Declare Value	0.02, Max		< 0.02	
Scratch Hardness of Surface (Moh's Scale)	IS 13630 (Part 13):2006	NA	5, Min		5 to 8 Depending on Design/Surface	•
Resistance to Surface Abrasion of Glazed Tiles (Class I to V)	IS 13630 (Part 11):2006	Test Method Available	Class II, Min		Class-III to Class-V Depen as per Design / Surfac	
Co-efficient of Linear Thermal Expansion from Ambiant Temperature to 100°C	IS 13630 (Part 4):2006	Test Method Available	7x10°K⁻¹, Max		Conforms	
Thermal Shock Resistance	IS 13630 (Part 5):2006	Test Method Available	10 cycle	es, Min	Passed	
Crazing Resistance	IS 13630 (Part 9):2006	Test Method Available	4 Cycles@7	.5 bar, Min	4 Cycle @ 7.5 Bar Mi	1 3
Frost Resistance	IS 13630 (Part 10):2006	Required	Requ	ired	Resistance	
Bulk Density, in (g/cc)	IS 13630 (Part 12):2006	NA	2.0,	Min	> 2.1	
Impact Resistance- Coefficient of Restitution	IS 13630 (Part 14):2006	Manufacturer to State	0.55,	Min	0.7-0.85	
Chemical Properties						
Resistance to Staining of Glazed Tiles		Min, Class 3	Class	, Min	Conforms	
Resistance to Household Chemicals	IS 13630 (Part 8):2006	Min, GA	Class A	A, Min	Conforms	
Resistance to Acids and Alkalis (with exception of hydrofluoric acid and its compounds)		Test Method Available	Required,	if agreed	Conforms	

TECHNICAL SPECIFICATIONS Ceramic Tiles

Packing Details				
Size	No. of Tiles Per Carton	Covered Area Per Carton		
(In mm.)		(In Sq. Mtr.)		
300X600 (Wall Tiles)	5	0.90		
300X450 (Wall Tiles)	6	0.81		
200X300 (Wall Tiles)	15	0.90		
300X300 (Floor Tiles)	9	0.81		

	(E > 10 % Group B III) o	as per IS 15622:201	7	
Characteristics	Standard Test Method	IS 15622:2017 E >	OBL Norms	
Dimension & Surface Quality		Unrectified	Rectified	
Deviation in Length & Width		± 0.4%	± 0.2 %	Conforms
Deviation in Thickness	± 5.0 %		± 4.00 %	
Straightness of Sides		± 0.2 %	± 0.15 %	Conforms
Rectangularity	IS 13630 (Part 1):2017	± 0.3 %	± 0.2 %	Conforms
Surface Flatness		± (0.3 %	± 0.20 % 🙂 🙂
Surface Quality		Min. 95 % tiles should be free from visible defects		Min. 95 % tiles should be free from visible defects
Physical Properties				
Water Absorption (%)	IS 13630 (Part 2):2017	Averag	e > 10 %	17±2 % 🙂
Modulus of Rupture in [N/mm²]	Min 15, for thickness < 7.5 mm Min 12, for thickness ≥ 7.5 mm IS 13630 (Part 6):2017 < 7.5 mm thickness: 200, Min ≥ 7.5 mm thickness: 600, Min		>15 🙂	
Breaking Strength in N			Conforms 🙂	
Moisture Expansion in mm/m	IS 13630 (Part 3):2017	0.04, Max		Conforms
Scratch Hardness of Surface (Moh's Scale)	IS 13630 (Part 13):2017	3, Min		3
Resistance to Surface Abrasion of glazed tiles (Class I to V)	IS 13630 (Part 11):2017	Class II, Min		Conforms
Co-efficient of Linear Thermal Expansion from ambiant temperature to 100°C	IS 13630 (Part 4):2017	9x10° K ⁻¹ , Max		Conforms
Thermal Shock Resistance	IS 13630 (Part 5):2017	10 cy	cles, Min	Passed 10 Cycle
Crazing Resistance Glazed Tiles	IS 13630 (Part 9):2017	4 Cycles@	7.5 bar, Min	4 Cycle Passed 🙂 🙂
Impact Resistance- Coefficient of Restitution	IS 13630 (Part 14):2017	0.55, Min		>0.55
Chemical Properties				
Resistance to staining of glazed tiles		Clas	s I, Min	Conforms
Resistance to household chemicals	IC 10 (00 (D 0) 001 =	Class AA, Min		Conforms
Resistance to acids and alkalis (with exception of hydrofluoric acid and its compound)	IS 13630 (Part 8):2017	Required, if agreed		Class AA

NOTE: Certain amount of Size and Shade variation is inherent in all ceramic products. Colours shown in this catalog are as accurate as the limitations of the printing process will allow. Prospective customers are advised to inspect a sample of the tile before ordering. Every effort has been made to ensure the accuracy of the information given. However, the company reserves the right to change the specification before prior notice. Sometimes variations in shade or size being inherent to ceramic industry may occur. It is suggested to check the tiles before purchasing and laying as the company does not accept the responsibility once the tiles are laid.



ORIENT BELL TILE BOUTIQUE

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11, 1st Floor, Venkata Samy Road (East), R.S. Puram, Coimbatore-641 002. Tel.: +91 89799 41666

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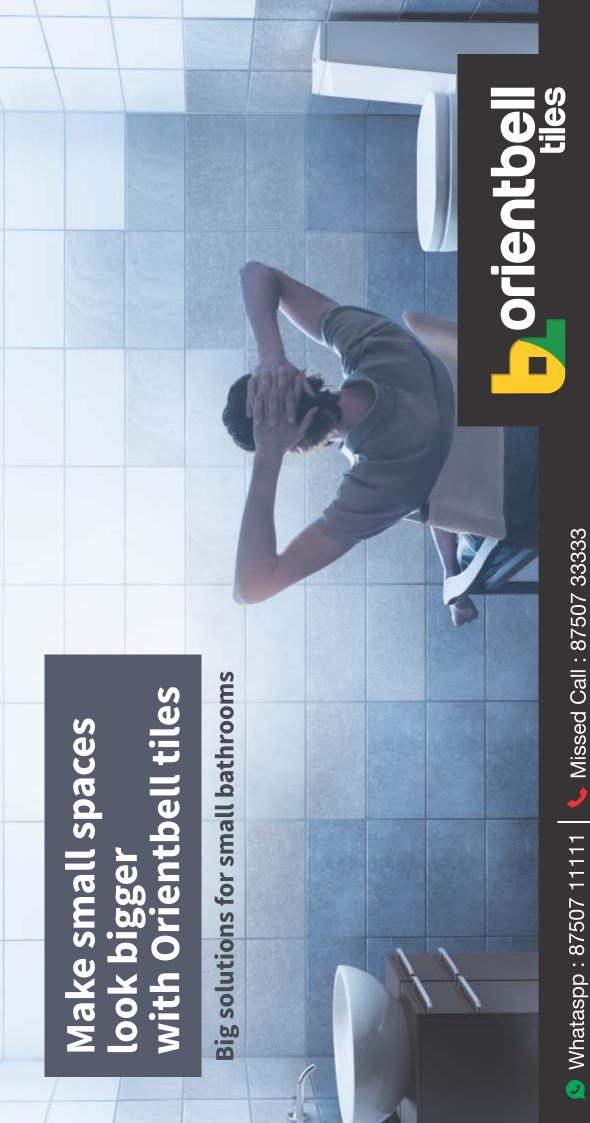
PUNE

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