AUTUMN
COLLECTION 2020

Kills 99% germs*
OBL Awards & Accolades

Realty+ recognizes the best of the best within the ranks of Indian Real Estate

Website of the Year for www.orientbell.com (India’s construction & design industry)

Integrated Brand Campaign of the Year for “Chote Bathroom ke Bade Upay” (India’s construction & design industry)

Best Omnichannel Retail Model
Winners Future of Retail Summit & Awards 2020

Customer Retail Journey Innovation
Winners Future of Retail Summit & Awards 2020

CEO with HR Orientation
ZEE BUSINESS
National Human Capital Leadership Congress & Awards
Go germfree with Orientbell Tiles.

New Forever Tiles are Germfree*!

99% Secure

Kills 99% germs*

forever tiles
In offices, gymnasiums, airports and similar high traffic areas prone to rough use, scratch and abrasion resistance is desired. Orientbell’s Forever Tiles are developed with such applications in mind. Orientbell has applied for a patent for corundum based coating composition as well as its method of applying it on the tiles.

1. High Compact Sintered Body With Low Water Absorption
2. Special FT Glaze With Engobe & 2 Glaze Coatings
3. High Resolution Special FT Print
4. Special Formulated High Resistance FT Coating

*Results achieved under standard test conditions as per JIS Antimicrobial Surface Test.
THE MECHANISM OF INFECTION

Infection caused by airborne transmission

Infection caused by contact and faeces

Infection caused by contaminated water

Infection caused by pathogens in bloodstream and tissues

CONTAINMENT IS THE KEY TO PREVENTION OF PANDEMIC

A few proven ways for containment

**HAND SANITIZERS**: Chemicals / thermal treatment / radiation to kill microbes on the hand

**MASS AREA SANITIZERS**: Chemical / thermal treatment / Radiation treatment (UV / IR) / static electrical shock to prevent the growth of microbial population in particular area.

**MASK AND OTHER PPEs**: Special kind of masks / gloves / body suits that stop transmission of virus to the human body.

**ANTI-MICROBIAL SURFACE**: This is a special surface which kills the microbe that come into its contact and prevents transmission to the next person.


### ADVANTAGES OF ANTI-MICROBIAL SURFACES AGAINST OTHER METHODS OF CONTAINMENT

<table>
<thead>
<tr>
<th></th>
<th>Hand sanitizers and mass area sanitizers</th>
<th>Mask and other PPEs</th>
<th>Anti-microbial Surface</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent of Human actions</strong></td>
<td>X</td>
<td>X</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Independent of behavioral compliance</strong></td>
<td>X</td>
<td>X</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Uniformity of effectiveness</strong></td>
<td>X</td>
<td>X</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Works 24x7</strong></td>
<td>X</td>
<td>X</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Continuously and actively kills Microbes</strong></td>
<td>X</td>
<td>X</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Requires frequent ordering and stocking</strong></td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

Result → **Dependent on Manual Intervention**

**Kills microbes even between cleanings**

It is very important to reduce the microbe population, if possible to completely kill those while it is waiting on the surface for indirect transmission. Here an anti-microbial chemical treated surface will come to help resolve the issue. The other methods of killing or preventing transmission of microbes may still be used in conjunction with the anti-microbial surface.

### HOW DOES A GERM FREE SURFACE WORK

A: Nano Particles from Germ Free Surface interact with microbe and cause cells damage  
B: The cell membrane ruptures because of nano particles leading to loss of cytoplasmic content  
C: Nano particles ions induce reactive oxygen generation which further causes cell damage  
D: Genomic and Plasmid DNA becomes degraded

![Depiction of tentative events in contact killing*](https://ncbi.nlm.nih.gov/pmc/articles/PMC3067274/)

*ncbi.nlm.nih.gov/pmc/articles/PMC3067274/

Anti-microbial surfaces only restrict indirect transmission, and do not reduce the risk of direct transmission of any infection. The methods to restrict/prevent direct transmission, as advised by the relevant Health Authorities, must be followed.
As per a survey of industrially available technologies done globally there is a combination of surface coatings explored worldwide. The surface coatings
- with nano-embedded particles in organic matrix - less durable
- with nano-embedded particles in inorganic matrix - more durable

OBL tiles contain nano-particle embedded inorganic coatings. These are more durable because of their inherent capability to withstand weathering and consequential damage.

**IN SUMMARY**

- **Microbes spread fast through multiple skin-surface contacts.**
- **Human precautions and cleaning cycles are subject to fallacy**
- **Anti-microbial surface works in-between human cleaning cycles**

Anti-microbial surfaces only restrict indirect transmission, and do not reduce the risk of direct transmission of any infection. The methods to restrict/prevent direct transmission, as advised by the relevant Health Authorities, must be followed.
I N D E X

CEMENT/SLATE 01-10

CEMENT/SLATE
- GFT BDF CEMENTO DK BLUE 01
- GFT BDF CEMENTO LT BLUE 01
- GFT BDF MODERN SLATE CHARCOAL 03
- GFT BDF RUSTIC NATURAL BROWN 03

STYLIZED 05

- GFT BDF ARABESQUE MULTI 05
- GFT BDF GEOMETRIC BROWN 05
- GFT BDF RUSTIC ARC JAISALMER 09
- GFT BDF RUSTIC TRIANGLE COFFEE 07
- GFT BDF RUSTIC TRIANGLE GREY 07

TILE LAYING CONCEPTS 15-22

TILE LAYING CONCEPTS
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- GFT BDF RUSTIC ARC JAISALMER 19-22

WOOD 23-32

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- GFT BDF NATURAL MAPLE WOOD 23

WOOD PLANKS
- GFT BDF ESPRESSO WOOD STRIP 25
- GFT BDF STRIP WOOD BEIGE 25
- GFT BDF STRIP WOOD GREY 27

STYLIZED
- GFT BDF DOUBLE RIVET WOOD 31
- GFT BDF HERRINGBONE BLOND OAK 29
- GFT BDF HERRINGBONE OAK MULTI 29
- GFT BDF INLAY WOOD 31

TEST REPORTS 33-34

Listed on BSE (530365) for 20+ years. And also on NSE (ORIENTBELL).
600x600 MM
CEMENT/SLATE

GFT BDF
CEMENTO DK BLUE

GFT BDF
CEMENTO LT BLUE
GFT BDF
RUSTIC NATURAL BROWN

GFT BDF
MODERN SLATE CHARCOAL
GFT BDF ARABESQUE MULTI

GFT BDF GEOMETRIC BROWN
GFT BDF
RUSTIC TRIANGLE GREY

GFT BDF
RUSTIC TRIANGLE COFFEE
GFT BDF
RUSTIC ARC JAISALMER
Try out these designs on Wall
“Enjoy Laying the Geometric Designs as per your taste!”
Bookmatch:
Halls, Featured Wall

Use of spacer is must for such patterns

Inverse Bookmatch:
Halls, Featured Wall

Use of spacer is must for such patterns
Hybrid Bookmatch: Halls, Featured Wall

Diagonal: Corridor, High Traffic

Use of spacer is must for such patterns
Arrow: High Traffic, Pathway

Double Arrow: High Traffic, Footpath

*Use of spacer is must for such patterns*
Circular:
Halls, Common Area

Star:
Featured Wall, Common Area

Use of spacer is must for such patterns
Butterfly: Featured Wall, Living Room

Rosebud: Halls, Featured Wall

Use of spacer is must for such patterns
Inclined Pillar: Featured Wall, High Traffic

Combo: Halls, Footpath

Use of spacer is must for such patterns
Mountain:
Featured Wall, Pathway

Waves:
Halls, Courtyard, Porch Area

Use of spacer is must for such patterns
GFT BDF
STRIP WOOD BEIGE

GFT BDF
ESPRESSO WOOD STRIP
GFT BDF
STRIP WOOD GREY
GFT BDF INLAY WOOD

GFT BDF DOUBLE RIVET WOOD
## Test Reports of Germfree Tiles

### SHRIRAM INSTITUTE FOR INDUSTRIAL RESEARCH

**A Unit of SHRIRAM Scientific and Industrial Research Foundation**

**Test Certificate**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Consignment Number</th>
<th>Customer's Address</th>
<th>Consignment Details</th>
<th>Consignment Details</th>
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<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2</td>
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</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
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### TEST RESULTS

<table>
<thead>
<tr>
<th>S.No</th>
<th>Description</th>
<th>Test Method</th>
<th>Test Results</th>
<th>Test Results</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2</td>
<td></td>
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</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### INTERPRETATION

The test results indicate that the product meets the specified requirements. No further action is required.
### Test Report

**LAB NO. / PANEL 1-6**

<table>
<thead>
<tr>
<th>LAB NO. / PANEL 1-6</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC/123</td>
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</tbody>
</table>

**DATE OF RECEIPT**

<table>
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<tr>
<th>DATE OF RECEIPT</th>
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<tbody>
<tr>
<td>12/05/2023</td>
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**DATE OF COMPLETION**

<table>
<thead>
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<th>DATE OF COMPLETION</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/05/2023</td>
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</tbody>
</table>

**SAMPLE DESCRIPTION**

<table>
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<tr>
<th>NAME OF SAMPLE</th>
</tr>
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<tbody>
<tr>
<td>ABC-123</td>
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</table>

**TEST RESULTS**

<table>
<thead>
<tr>
<th>TEST</th>
<th>RESULT</th>
<th>LIMIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>450</td>
<td>500</td>
</tr>
<tr>
<td>B</td>
<td>125</td>
<td>140</td>
</tr>
</tbody>
</table>

**COMMENTS**

The test results were within the acceptable limits. Further analysis would be required for future testing.

**SIGNED**

[Signature]

Biotech Testing Services

[Date]
# TECHNICAL SPECIFICATIONS

## Packing Details

<table>
<thead>
<tr>
<th>Size</th>
<th>No. of Tiles</th>
<th>Covered Area Per Carton</th>
</tr>
</thead>
<tbody>
<tr>
<td>(In mm.)</td>
<td>Per Carton</td>
<td>(In Sq. Mtr.)</td>
</tr>
<tr>
<td>600x600 (Dora)</td>
<td>4</td>
<td>1.44</td>
</tr>
</tbody>
</table>

## Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Standard as Per IS 15622:2017 Group B</th>
<th>OBL Norms</th>
<th>Testing Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimension &amp; Surface Quality</strong></td>
<td></td>
<td></td>
<td>IS 13630 Part 1</td>
</tr>
<tr>
<td>Deviation in Length &amp; Width</td>
<td>± 0.1 %</td>
<td>±0.05%</td>
<td></td>
</tr>
<tr>
<td>Deviation in Thickness</td>
<td>± 5.0 %</td>
<td>±3.0%</td>
<td></td>
</tr>
<tr>
<td>Straightness of Sides</td>
<td>± 0.1 %</td>
<td>±0.1%</td>
<td></td>
</tr>
<tr>
<td>Rectangularity</td>
<td>± 0.1 %</td>
<td>±0.1%</td>
<td></td>
</tr>
<tr>
<td>Surface Flatness</td>
<td>± 0.5 %</td>
<td>±0.2%</td>
<td></td>
</tr>
<tr>
<td>Surface Quality</td>
<td>Min 95% of the tiles shall be free from visible defects that would impair the appearance of a major area of the tile</td>
<td>Conforms</td>
<td></td>
</tr>
</tbody>
</table>

## Physical Properties

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Standard as Per IS 15622:2017 Group B</th>
<th>OBL Norms</th>
<th>Testing Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Absorption %</td>
<td>Avg 0.08 &lt; E ≤ 3.0%, Individual 3.30% Max</td>
<td>Less than 3 %</td>
<td>IS 13630 Part 2</td>
</tr>
<tr>
<td>Modulus of Rupture in N/mm²</td>
<td>Avg 30, Individual 27 Min</td>
<td>Min 33 N</td>
<td>IS 13630 Part 6</td>
</tr>
<tr>
<td>Breaking Strength N</td>
<td>700 Min for thickness &lt; 7.5mm, 1100 Min for thickness ≥ 7.5 mm</td>
<td>1200 N Min</td>
<td></td>
</tr>
<tr>
<td>Moisture Expansion</td>
<td>0.02, Max</td>
<td>0.02 Max</td>
<td>IS 13630 Part 3</td>
</tr>
<tr>
<td>Scratch Hardness (Moh’s Scale)</td>
<td>5, Min</td>
<td>7</td>
<td>IS 13630 Part 13</td>
</tr>
<tr>
<td>Resistance to Surface Abrasion of glazed tiles Class I to V (Applicable for floor applications only)</td>
<td>Class II, Min</td>
<td>Class V</td>
<td>IS 13630 Part 11</td>
</tr>
<tr>
<td>Linear thermal expansion Co-efficient</td>
<td>6x10^⁵, Max</td>
<td>Conforms</td>
<td>IS 13630 Part 4</td>
</tr>
<tr>
<td>Thermal Shock Resistance</td>
<td>10 Cycles, Min</td>
<td>Passed</td>
<td>IS 13630 Part 5</td>
</tr>
<tr>
<td>Crazing Resistance</td>
<td>4 Cycles at 7.5 Bar, Min</td>
<td>Passed</td>
<td>IS 13630 Part 9</td>
</tr>
<tr>
<td>Impact Resistance</td>
<td>0.55, Min</td>
<td>0.6</td>
<td>IS 13630 Part 14</td>
</tr>
<tr>
<td>Frost Resistance</td>
<td>Required if agreed to between manufacturer and purchaser</td>
<td>Resistant</td>
<td>IS 13630 Part 10</td>
</tr>
<tr>
<td>Bulk density g/cc</td>
<td>2.0, Min</td>
<td>2.0, Min</td>
<td>IS 13630 Part 2</td>
</tr>
</tbody>
</table>

## Chemical Properties

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Standard as Per IS 15622:2017 Group B</th>
<th>OBL Norms</th>
<th>Testing Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stain Resistance Glazed tiles</td>
<td>Class I, Min</td>
<td>Class -1</td>
<td>IS 13630 Part 8</td>
</tr>
<tr>
<td>Resistance to household chemicals</td>
<td>Class AA, Min</td>
<td>Class AA</td>
<td></td>
</tr>
<tr>
<td>Resistance to acids and alkalis</td>
<td>Class AA, Min</td>
<td>Class AA</td>
<td></td>
</tr>
</tbody>
</table>

**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.
TECHNICAL SPECIFICATIONS

A Network of 2500+ Channel Partners

- Franchise Owned Boutiques
- Channel Partners
- Company Owned Boutiques
- Plants

ORIENT BELL TILE BOUTIQUE

CHANDIGARH
SCO - 6, First Floor, Sector 7-C, Madhya Marg, Chandigarh-160 019,
Tel.: +91 172 4824 342

CHENNAI
New No: 85, Old No: 30, Maharaja Tower, 2nd Floor, 1st Avenue,
Asinolk Nagar, (Above Kotak Mahindra Bank), Chennai-600 083,
Tel.: +91 44 4273 8667

COCHIN
"SURYA GAYATRI", Building No. 32/A, B3, Puthiya Road, New Junction,
(Opposite Holiday Inn Hotel) Ernakulam By Pass Road, Cochin-682 031
Tel.: +91 97457 68058

COIMBATORE
11, 1st Floor, Venkata Samy Road (East), R.S. Puram,
Coimbatore-641 002.
Tel.: +91 89799 41966

DEHRADUN
Duggal Complex (Near Kamla Palace Hotel), GMS Road,
Dehradun-248 001,
Tel.: +91 97197 01064

KOLKATA
8/1, Burdwan Road, Alipore, Kolkata-700 027,
Tel.: +91 33 4068 4046/7

LUCKNOW
Raj Rani Apartment, Ground Floor, Near Beetle Nigam, Badhshah Nagar Railway
Station, Lucknow-226 006,
Tel.: +91 99847 86404

NEW DELHI
M-47, SK-II, M Block, New Delhi-110 048,
Tel.: +91 11 4068 7468/69

PUNE
Shop No. 3 and 4, A Tower Vega Centre, C.T.S No. 710, Final Plot No. 401/1,
Shankarsheeth Road, Gultekdi, Swargate, Pune-411 037
Tel.: +91 73910 72247

VAOONDA DISPLAY CENTRE
78-79, 2nd Floor, Surya Kiran Complex, Beside Banker Heart Institute,
Old Padra Road, Vadodara-390007, Gujarat
Tel.: +91 98754 14113