

# AUTUMN

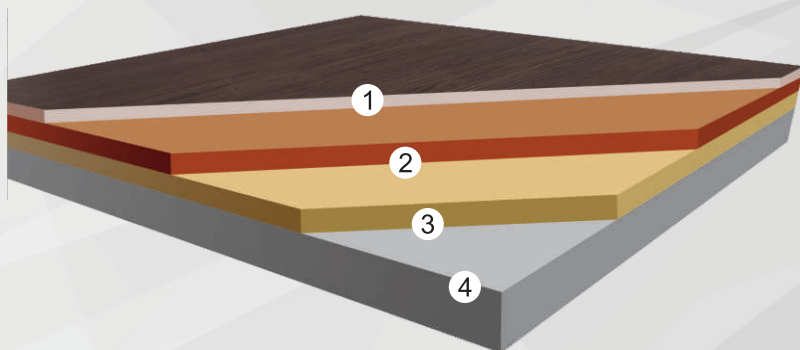
— SEASON 2.0 —

NEW FOREVER TILES RANGE



# Go "Germfree" with Orientbell forever tiles

99%\* Secure



## Forever 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

\*GFT FT : Value based on internal tests conducted by Orient Bell following the MOHs scale of mineral hardness which characterizes scratch resistance on a scale of 1 to 10, the higher number being more scratch resistant.

## Orientbell's Scratch Resistant Range-

In offices, 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.



\*Results achieved under standard test condition as per JIS Antimicrobial Surface Test.



# INDEX

GFT BDF Arrow Bass Wood FT 04

GFT BDF Chips Multi FT 08

GFT BDF Cement Strips Multi FT 15

GFT BDF Dyna Crema FT 07

GFT BDF Diamond Multi FT 14

GFT BDF Moroccan Art Grey FT 12

GFT BDF Moroccan Art Multi FT 13

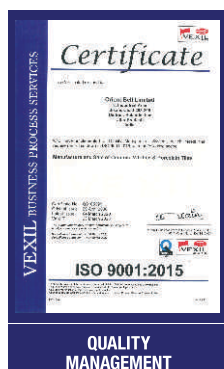
GFT BDF Onyx White FT 05

GFT BDF Royal Dyna Grey FT 06

GFT BDF Sand Silver FT 09

GFT BDF Sand Grey LT FT 10

GFT BDF Sand Ivory FT 11



Listed on BSE (530365) for 20+ years.  
And also on NSE (ORIENTBELL).

## GFT BDF ARROW BASS WOOD FT



Preview Shown : GFT BDF Arrow Bass Wood FT

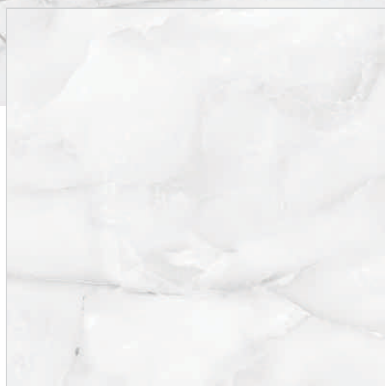
G5

F4





## GFT BDF ONYX WHITE FT



G5

F4

Preview Shown : GFT BDF Onyx White FT

## GFT BDF ROYAL DYNA GREY FT



G5

F4

Preview Shown : GFT BDF Royal Dyna Greyi FT





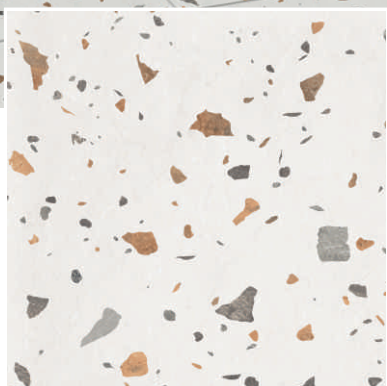
## GFT BDF DYNA CREMA FT



G5  
F4

Preview Shown : GFT BDF Dyna Crema FT

## GFT BDF CHIPS MULTI FT



G5  
F4

Preview Shown : GFT BDF Chips Multi FT

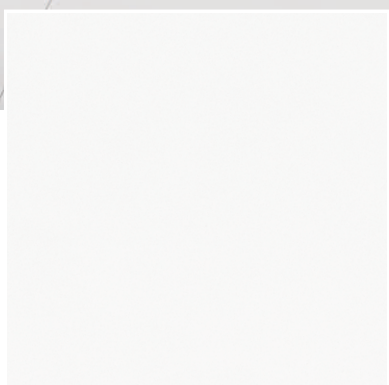




## GFT BDF SAND SILVER FT



Preview Shown : GFT BDF Sand Silver FT



G5

F4

## GFT BDF SAND GREY LT FT



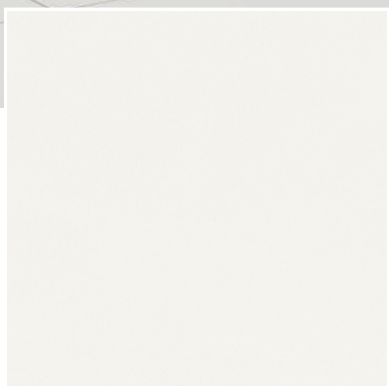
Preview Shown : GFT BDF Sand Grey LT FT

G5  
F4





## GFT BDF SAND IVORY FT

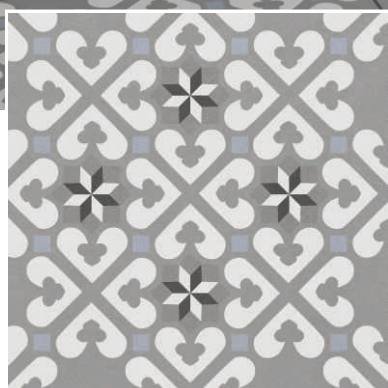


G5

F4

Preview Shown : GFT BDF Sand Ivory FT

## GFT BDF MOROCCAN ART GREY FT



G5

F4

Preview Shown : GFT BDF Moroccan Art Grey FT





## GFT BDF MOROCCAN ART MULTI FT



G5

F4

Preview Shown : GFT BDF Moroccan Art Multi FT



## GFT BDF DIAMOND MULTI FT



G5  
F4

Preview Shown : GFT BDF Diamond Multi FT & GFT FT Andes Crema

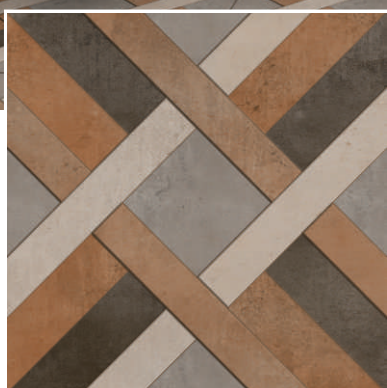




## GFT BDF CEMENT STRIPS MULTI FT



Preview Shown : GFT BDF Cement Strips Multi FT



G5

F4

# Test Reports of Germfree Tiles

**SHRIRAM INSTITUTE FOR INDUSTRIAL RESEARCH**  
(A unit of Shriram Scientific and Industrial Research Foundation)  
An ISO - 9001:2008 Certified Institute

000247052

**TEST CERTIFICATE**

Issued to : ORIENT BELL LIMITED,  
8, INDUSTRIAL AREA,  
SIKANDRABAD - 203205, UTTAR PRADESH

Kind Attn: MR. G. S. TYAGI, SR. MGR. PURCHASE

Sample Particulars:  
One sample of Nand Tech Germ Free Tiles, Size 600x600 was received.

J.O.No. 287-111-1007  
Reg.No. 1333612  
Date 31-07-2012  
GC-01 (REV-04)  
P.O. no. uc/skalp  
ur/p/088  
10/07/2012

Your Ref.No. \_\_\_\_\_  
Date \_\_\_\_\_

**TEST RESULTS**

TEST PROTOCOL: Evaluation of Antimicrobial activity of the Tile sample.  
TEST ORGANISM: As per guidelines of IS - Z 2801-2000  
SAMPLE SIZE: 50mm X 50mm

S. No.	Antibacterial Resistance against <i>Escherichia coli</i>	Count per Piece of control, (in cfu/Piece)	Conc. of Inoculum (Average count, (in cfu/piece))
1.	Control Sample (marked as untreated)		
	Number of bacteria inoculated per piece at 0 Hrs(A)	7.2 x 10 <sup>5</sup> 7.6 x 10 <sup>5</sup> 7.2 x 10 <sup>5</sup>	7.3 x 10 <sup>5</sup>
2.	Number of bacteria inoculated per piece after 24 Hrs incubation(B)	9.5 x 10 <sup>5</sup> 9.1 x 10 <sup>5</sup> 9.4 x 10 <sup>5</sup>	9.3 x 10 <sup>5</sup>

S. No.	Sample (marked as treated)	Count per tile, (in cfu/tile)	Conc. of Inoculum (Average count (C), (in cfu/tile))	Antimicrobial Activity after 24hrs (log (B/C))
3.	Number of bacteria inoculated per piece after 24 Hrs incubation(C)	1.7 x 10 <sup>3</sup> 2.1 x 10 <sup>3</sup> 2.0 x 10 <sup>3</sup>	1.9 x 10 <sup>3</sup>	3.6

Contd. to report no. 247053 (Page 1 of 2)

19, University Road, Delhi - 110007.  
E-Mail: [srishd@vsnl.com](mailto:srishd@vsnl.com) Website: <http://www.shriraminstitute.org>  
Ph: 91-11-27667267, 27667983, 27667860  
Fax: 91-11-27667676, 27667207 P.T.O.

**SHRIRAM INSTITUTE FOR INDUSTRIAL RESEARCH**  
(A unit of Shriram Scientific and Industrial Research Foundation)  
An ISO - 9001:2008 Certified Institute

000247053

**TEST CERTIFICATE**

Contd. from report no. 247052 (Page 2 of 2)

**2. Antibacterial Resistance against *Staphylococcus aureus***

S. No.	Control Sample (marked as untreated)	Count per piece of control, (in cfu/piece)	Conc. of Inoculum (Average count, (in cfu/piece))
1.	Number of bacteria inoculated per piece at 0 Hrs(A)	8.2 x 10 <sup>5</sup> 8.0 x 10 <sup>5</sup> 8.5 x 10 <sup>5</sup>	8.2 x 10 <sup>5</sup>
2.	Number of bacteria inoculated per piece after 24 Hrs incubation. (B)	9.7 x 10 <sup>5</sup> 9.4 x 10 <sup>5</sup> 9.2 x 10 <sup>5</sup>	9.4 x 10 <sup>5</sup>

S. No.	Sample (marked as treated)	Count per tile, (in cfu/tile)	Conc. of Inoculum (Average count (C), (in cfu/tile))	Antimicrobial Activity after 24hr (log (B/C))
3.	Number of bacteria inoculated per piece after 24 Hrs incubation(C)	Less than 10 Less than 10 Less than 10	Less than 10	5.9

**Interpretation:** The antimicrobial efficacy of Tile was found to be 3.6 against *Escherichia coli* and 5.9 against *Staphylococcus aureus*, which are above the value of 2.0 as per the guideline. Hence sample of tile passes the test.

DOR: 11-07-2012  
DOC: 30-07-2012

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Fax: 91-11-27667676, 27667207 P.T.O.



# **BTS** BIOTECH TESTING SERVICES

## TEST REPORT

DATE: 07/12/2019

LAB NO.: 1902089/5-6

NAME OF CUSTOMER

ADDRESS

REFERENCE

DATE OF RECEIPT

DATE OF INITIATION

DATE OF COMPLETION

SAMPLE DESCRIPTION

Sr. No.	Sample Code
5.	FT Tiles
6.	FT Tiles

M/S. ORIENT BELL LIMITED  
8, A 76 to A 80, Industrial Area, Sikandrabad 203205,  
UP, India  
Your Letter Ref: Nil dated November 21, 2019  
Kind Attention: Amit kumar

21/11/2019

21/11/2019

07/12/2019

Tiles specimen labeled as -

Other details

Untreated

Treated

Name of Test:  
Evaluation of Antimicrobial Activity of Tile sample

Name of Test Protocol:  
JIS Z 2801: 2010

Test Organisms used for evaluating Antimicrobial activity:  
1. Staphylococcus aureus ATCC 6538  
2. Escherichia coli ATCC 8739

Test Conditions:  
Neutraliser used : Buffered Saline with Tween 80 - 0.01 %  
Contact Time : 24 hours at 37° C  
Incubation Temperature : 37° C for Bacteria  
Media and Reagent : Soyabean-casein digest agar for Bacteria

Page 1 of 2

# **BTS** BIOTECH TESTING SERVICES

Results:

## ANTIBACTERIAL ACTIVITY

1. Test Bacteria: Staphylococcus aureus ATCC 6538

Quantitative Assessment of Activity - JIS Z 2801: 2010			
Untreated: Conc. of Inoculum on untreated sample at 0 hours (A):	$1.78 \times 10^5$	Log = 5.25	
Untreated: Conc. of Inoculum on untreated sample after 24 hour (B):	$5.30 \times 10^5$	Log = 5.72	
Sample Identification	No. Bacteria on treated sample (C)	Log of Bacteria on treated sample	Antimicrobial Activity (R) (Log B-C)
FT Tile - Untreated	192000	5.28	0.44
FT Tile - Treated	4500	3.65	2.07
			63.77
			99.15

2. Test Bacteria: Escherichia coli ATCC 8739

Quantitative Assessment of Activity - JIS Z 2801: 2010			
Untreated: Conc. of Inoculum on untreated sample at 0 hours (A):	$1.64 \times 10^5$	Log = 5.21	
Untreated: Conc. of Inoculum on untreated sample after 24 hour (B):	$1.20 \times 10^5$	Log = 6.07	
Sample Identification	No. Bacteria on treated sample (C)	Log of Bacteria on treated sample	Antimicrobial Activity (R) (Log B-C)
FT Tile - Untreated	210000	5.32	0.75
FT Tile - Treated	10600	4.02	2.05
			82.50
			99.11

The Standard Antimicrobial value of Evaluation  $R \geq 2.0$   
When tested as specified, Tile sample labeled FT Tile - Treated: **PASSES** the Quantitative Assessment of activity;  
FT Tile - Untreated: **FAILS** the Quantitative Assessment of activity for Staphylococcus aureus and Escherichia coli  
by JIS Z 2801: 2010 Test Method.

For BIOTECH TESTING SERVICES



Dr Shilpa U. Nair  
Quality Manager  
(Authorized Signatory)

1902089/5-6  
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# TECHNICAL SPECIFICATIONS

## Forever Tiles

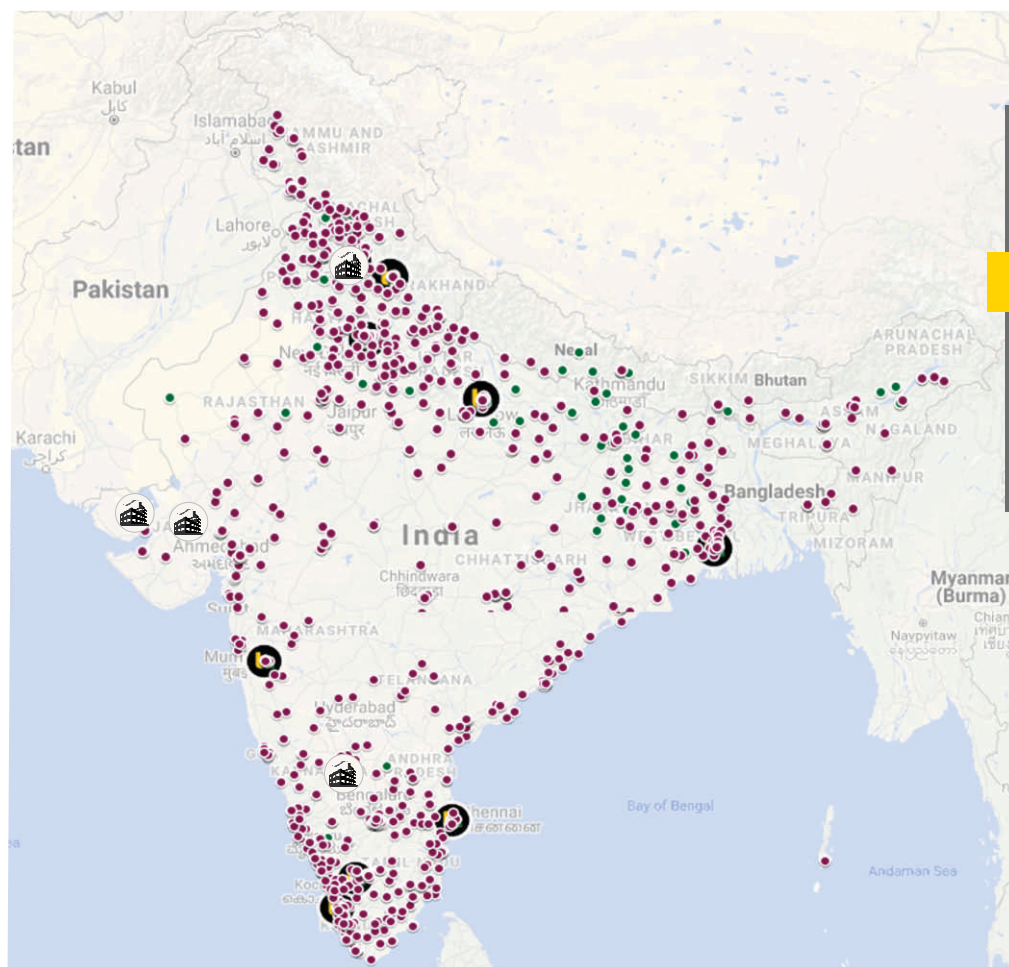
Packing Details			
Size	No. of Tiles	Covered Area Per Carton	
( In mm. )	Per Carton	( In Sq. Mtr. )	( In Sq. Ft. )
600x600 (Dora)	4	1.44	15.5

Characteristics	Standard as Per IS 15622:2017 Group B Ib	OBL Norms	Testing Methods
Dimension & Surface Quality			
Deviation in Length & Width	± 0.1 %	±0.05%	IS 13630 Part 1
Deviation in Thickness	± 5.0 %	±3.0%	
Straightness of Sides	± 0.1 %	±0.1%	
Rectangularity	± 0.1 %	±0.1%	
Surface Flatness	± 0.5 %	± 0.2 % 😊😊	
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	Conforms	
Physical Properties			
Water Absorption %	Avg 0.08 < E ≤ 3.0% , Individual 3.30% Max	Less than 3 %	IS 13630 Part 2
Modulus of Rupture in N/mm <sup>2</sup>	Avg 30, Individual 27 Min	Min 33 N 😊😊	IS 13630 Part 6
Breaking Strength N	700 Min for thickness < 7.5mm, 1100 Min for thickness ≥ 7.5 mm	1200 N Min 😊😊	
Moisture Expansion	0.02, Max	0.02 Max	IS 13630 Part 3
Scratch Hardness (Moh's Scale)	5, Min	≅ 8*	IS 13630 Part 13
Resistance to Surface Abrasion of glazed tiles Class I to V (Applicable for floor applications only)	Class II, Min	Class V	IS 13630 Part 11
Linear thermal expansion Co-efficient	6x10 <sup>-6</sup> , Max	Conforms	IS 13630 Part 4
Thermal Shock Resistance	10 Cycles, Min	Passed	IS 13630 Part 5
Crazing Resistance	4 Cycles at 7.5 Bar, Min	Passed 😊	IS 13630 Part 9
Impact Resistance	0.55, Min	0.6	IS 13630 Part 14
Frost Resistance	Required if agreed to between manufacturer and purchaser	Resistant	IS 13630 Part 10
Bulk density g/cc	2.0, Min	2.0, Min	IS 13630 Part 2
Chemical Properties			
Stain Resistance Glazed tiles	Class I, Min	Class -1	IS 13630 Part 8
Resistance to household chemicals	Class AA, Min	Class AA	
Resistance to acids and alkalis	Class AA, Min	Class AA	


\*GFT FT : Value based on internal tests conducted by Orient Bell following the MOHS scale of mineral hardness which characterizes scratch resistance on a scale of 1 to 10, the higher number being more scratch resistant.

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.





A Network of  
**2500+**  
Channel Partners

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

## ORIENT BELL TILE BOUTIQUE

### CHANDIGARH

SCO - 6, First Floor, Sector 7-C, Madhya Marg, Chandigarh-160 019,  
Tel.: +91 172 4624 342

### CHENNAI

New No: 85, Old No: 30, Maharaja Tower, 2nd Floor, 1st Avenue,  
Ashok Nagar, (Above Kotak Mahindra Bank), Chennai-600 083,  
Tel.: +91 44 4213 8687

### COCHIN

"SURYA GAYATRI", Building No. 32/8, 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 41666

### 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 Beej Nigam, Badhshah Nagar Railway  
Station, Lucknow-226 006,  
Tel.: +91 99847 86404

### NEW DELHI

M-47, GK-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,  
Shankarasheth Road, Gultekdi, Swargate, Pune-411 037  
Tel.: +91 73910 72247

### VADODRA DISPLAY CENTRE

78-79, 2nd Floor, Surya Kiran Complex, Beside Banker Heart Institute,  
Old Padra Road, Vadodara-390007, Gujarat  
Tel.: +91 98254 14113





## 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)

### CORPORATE OFFICE:

Iris House, 16 Business Centre,  
Nangal Raya, New Delhi-110046, India  
Tel: +91-11-47119100, Fax: +91 -11-2852 1273

### REGISTERED OFFICE:

8 Industrial Area, Sikandrabad-203 205 (UP), India  
Tel: +91-5735-222-203 / 24, +91-8191004575/ 76  
Fax: +91 -5735 222 642

### CUSTOMER CARE:

[customercare@orientbell.com](mailto:customercare@orientbell.com)  
Missed Call : 87507 11111  
Whatsapp : 87507 33333

CIN: L14101UP1977PLC021546

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