

**You can also reach us at**

Region	Branch	Tel.:
EAST	West Bengal (Kolkata - R.O.) Odissa Siliguri Guwahati Ranchi	033-22272128 / 29 0674-2430240 9836065812 9127066591 9798845560
WEST	Mumbai - Bandra to Dahanu Mumbai - Central Thane to Raigad Pune Ahmedabad Indore	022-40647500 022-40647500 022-25867600 / 666 020-41301164 / 31 079 30072051 / 52 / 53 / 54 / 55 0731-4007441
NORTH	Jalandhar Chandigarh Delhi Jaipur Lucknow Ghaziabad Patna	0182-4505038 / 39 0172-4697100 011-49526600 0141-2368329 0522-2721699 0120-4110377 0612-2254252 / 9576038781
SOUTH	Banglore Hyderabad Vijaywada Vishakapatnam Tirupati Ernakulam Calicut Trivandrum Chennai Coimbatore Salem Madurai Trichy	080-25446841 / 42 040-29802270 / 71 / 72 9666429666 0891-2796376 9121228960 0484-4098500 / 509 / 510 0495-2352474 / 2362357505 0471-2551141 044-28544116 / 28541881 0422-4382698 / 2210501 0422-4382698 / 2210501 0452-4355584 / 4355594 9486718544

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

Toll Free No.: 1800-22-7484 E-mail : [tiles.customercare@prismjohnson.in](mailto:tiles.customercare@prismjohnson.in)  
For Export Enquiries, Email : [exports.customercare@prismjohnson.in](mailto:exports.customercare@prismjohnson.in)



**PRISM JOHNSON LIMITED**  
(FORMERLY PRISM CEMENT LIMITED)

**H & R JOHNSON (INDIA) DIVISION**

Corporate Office : 7th Floor, Windsor, C. S. T. Road, Kalina, Santacruz (East), Mumbai - 400 098, India.  
Tel.: +91-22-4064 7300 / 2654 7300 Website : [www.hrjindia.com](http://www.hrjindia.com) Export Website : [www.prismtiles.com](http://www.prismtiles.com)

Registered Office : 305, Laxmi Niwas Apartments, Ameerpet, Hyderabad - 500016, Telangana, India.

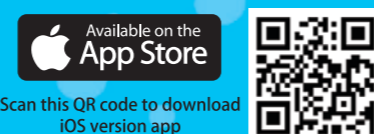
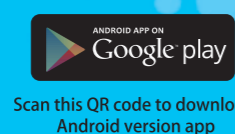
Colors shown are as accurate as the limitations of the printing process will allow. Prospective customers are advised to inspect a sample of the tile before ordering. Every effort has been made to ensure the accuracy of the information given. However, the company reserves the right to change the specifications without prior notice. Sometimes, variations in shade or size may occur which is inherent to the ceramic industry. Before fixing the tiles, we urge you to read and follow the fixing instructions given on the carton box of the tiles. The company will not take any responsibility and will not accept any complaints of shade, size or planarity once the tiles have been fixed.

Although every effort is made to ascertain that all the information provided in this brochure is accurate before printing, errors may still happen. Please contact the local branch office for updated information before placing orders. The information contained in this catalog is given in good faith. The Company takes no liability on account of any loss or damage either consequential or otherwise as a result of the information provided therein.

View our Tile informative videos



Download Johnson Tiles Mobile App



BRO0220DXE001-CC Cat/Endura/Kun/Dew/Coolroof/Feb20

**45° C**

When sun is blazing in all it's fury outside...



**ENDURA**  
**COOL ROOF**  
**SRI TILES**

# ENDURA COOL ROOF SRI TILES

Summers. They have a knack of bringing out the worst in us. Especially Indian summers. The sun shines with a vengeance and lets rip its heat upon us. What if we told you that you can now beat the heat inside your home? That your surface temperature could be cooler by up to 15° C without increasing load on your cooling appliances? Sounds unbelievable? Understandably, so. Presenting Endura Cool Roof SRI tiles. A range of unique tiles that keep the harsh rays of the sun off your building and bounce them back into the atmosphere. The upshot of an ingenious Glazing Process, these tiles help keep the room temperatures cool naturally and therefore may help to reduce load on external cooling appliances like your air-conditioner or cooler. Now, experiencing the cool and ambient temperature in your home. Which may also help you to save on electricity consumption, while you sit cosily and relax, within the cool comforts of your home. Lay them out on your terrace, your balcony or exterior walls directly exposed to sunlight and they will continue to perform for years to come.





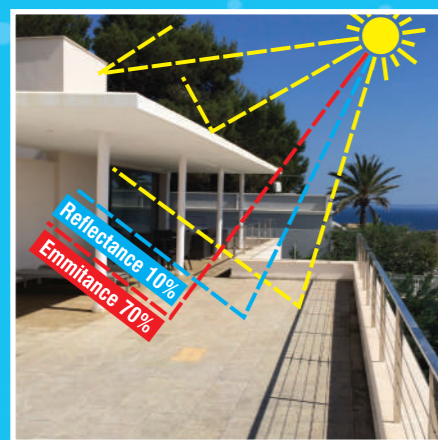
**ENDURA**  
COOL ROOF  
SRI TILES



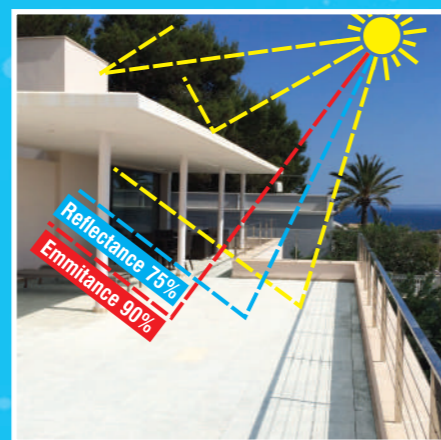


### WHAT IS SRI?

- Solar Reflective Index (SRI) measures the surface's ability to reflect solar heat and emit infra-red heat.
- Endura Cool Roof SRI tiles reflect solar heat and emit absorbed radiation back into the atmosphere thus help keep the interiors of the building cooler.
- The U. S. Green Building Council's LEED 2.2 uses SRI as a way to evaluate the surface's capacity to reflect solar heat. The roof of the building need to have a minimum SRI value of 78 to qualify for LEED accreditation.
- Endura Cool Roof SRI Tiles have SRI value >90 (White Colour).
- Endura Cool Roof SRI Tiles on the roof and facades of the building can reduce surface temperature up to 15° C.



Ordinary Roof



Roof having Endura Cool Roof SRI

### THE REVOLUTIONARY TECHNOLOGY

With Endura we have devised a special process of glazing that makes the tiles reflect most of the solar heat. The special glaze is composed of Alumina silicate fine particles embedded with nano particles of zirconium silicate and zinc oxide admixtures, fired at a very high temperature. The result is tile surface having a Solar Reflective Index (SRI) value above 90 (White Colour).

### ENDURA COOL ROOF TILE SIZE & THICKNESS



Available in  
 8, 10 & 20 mm & higher thickness\*



White

Endura Cool Roof SRI tiles are offered in satin matte finish that provides anti-skid surface making them safe and practical for terraces, roofs, pavements etc. They come in a convenient sizes as below :

- 300 X 300 - 8mm thickness
- 300 X 300 - 10mm thickness
- 300 X 300 - 20mm thickness
- 400 X 400 - 8mm thickness



\* Higher thickness are available on made-to-order basis only.

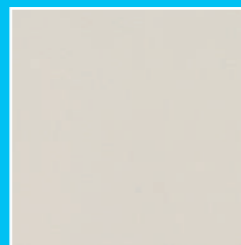


**ENDURA COOL ROOF SRI TILES : SPECTRUM OF COLOURS**

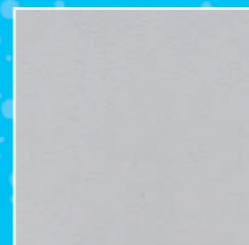
Although it is scientifically proven that white surface reflects heat like no other colour can, Endura Cool Roof SRI Tiles offer a spectrum of 6 beautiful pastel shades other than white. What's more, all these colour tiles have SRI value greater than 78. Endura has truly achieved a golden mean - developing energy efficient, highly practical tiling solutions that are aesthetically appealing as well.



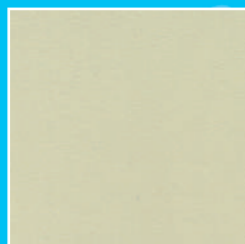
**NEW**



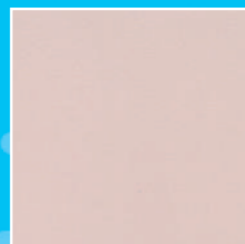
Ivory\*



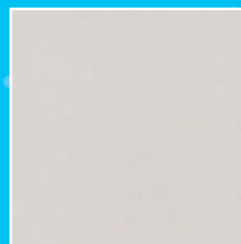
Light Grey\*



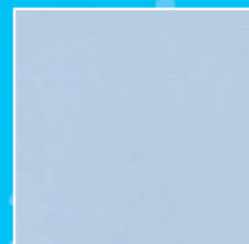
Yellow\*



Pink\*

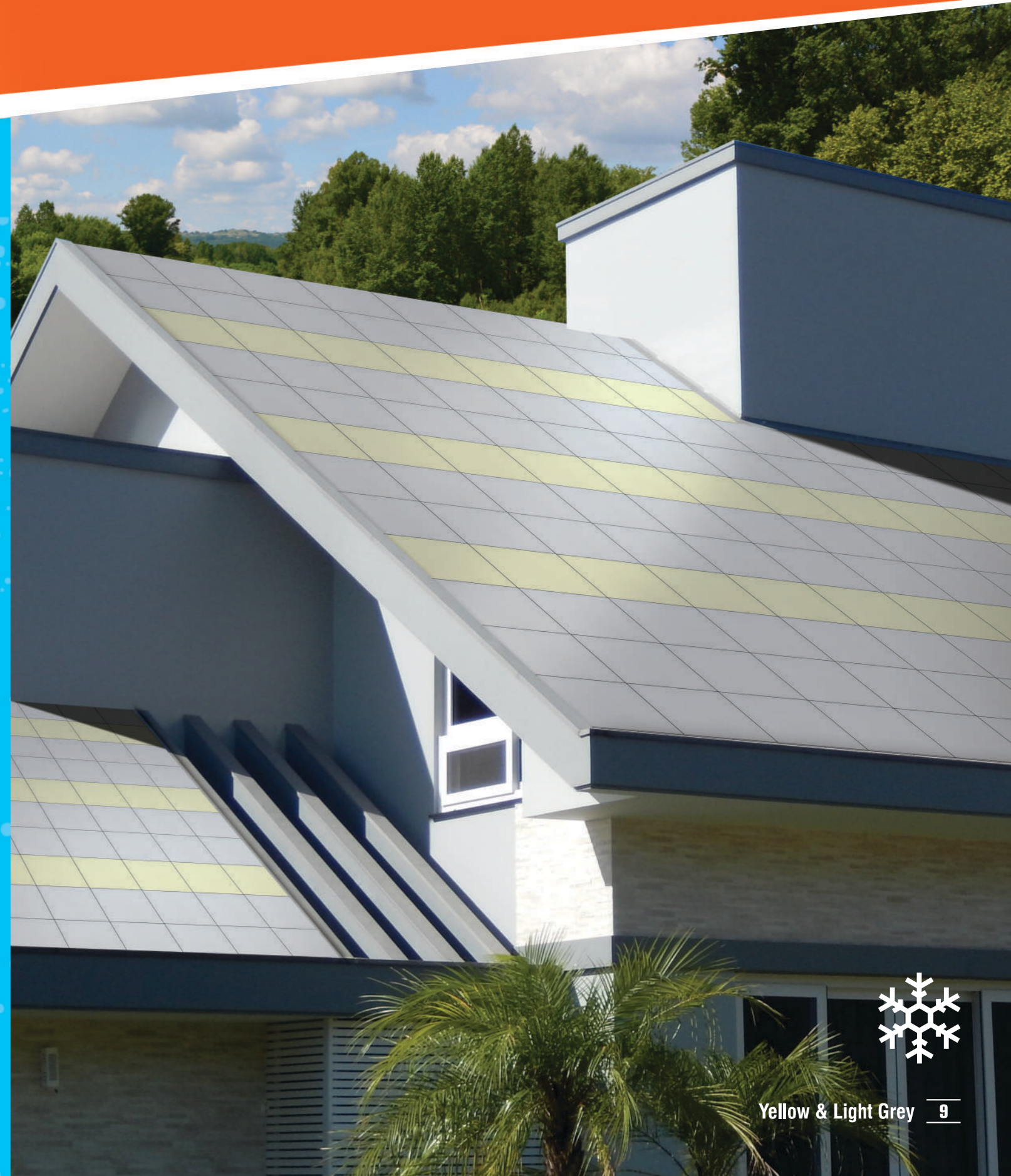


Almond\*



Sky Blue\*

Endura Cool Roof tiles are suitable for low sloped and steep sloped roof applications starting from a pitch of 9:5 degree ( 2:12 rise over run). They are designed to meet IGBC / LEED SRI requirements for both low slopes and steep slopes. Besides, the Cool-Roof tiles are suitable for use on pavements and will qualify for IGBC / LEED Heat Island Effect Reduction Non-Roof credits.





**BENEFITS OF ENDURA COOL ROOF SRI:**

- Reduce surface temperature up to 15° C.
- Improve indoor comfort.
- Reduce cooling requirement and save electricity.
- Reduce conduction of heat into the building.
- Reduce the "heat island effect" in cities.
- Reduction in global warming and saving of ozone layer.
- Endura Cool Roof SRI Tiles is a sensible choice for the buildings - saving electricity and saving the environment

**APPLICATION AREAS:**

- Building roofs
- Balconies
- Exterior facades cladding
- Pavements





## TEST REPORT FOR ENDURA COOL ROOF SRI



**BUILDING ENERGY PERFORMANCE LABORATORY**  
Test Report for Solar Reflectance Index (SRI)



Report No: BEPL/RPT/SRI/126

Report Date: 27<sup>th</sup> March 2014

### 3. Results of the measurement:

#### Solar Direct Reflectance

Sample name	Sample ID	Measurement 1	Measurement 2	Measurement 3	Average
Endura White (D)	SRI/03/14/1127	0.7397	0.7380	0.7394	0.7390

#### Emissivity

Sample name	Sample ID	Measurement 1	Measurement 2	Measurement 3	Average
Endura White (D)	SRI/03/14/1127	0.896	0.896	0.896	0.896

#### Solar Reflectance Index (SRI) under different wind conditions

Sample name	Sample ID	Solar Reflectance Index (SRI)		
		Low Wind( $h_w=5 \text{ W m}^{-2} \text{ K}^{-1}$ )	Medium Wind( $h_w=12 \text{ W m}^{-2} \text{ K}^{-1}$ )	High Wind( $h_w=30 \text{ W m}^{-2} \text{ K}^{-1}$ )
Endura White (D)	SRI/03/14/1127	91	91	92

#### Surface Temperature ( $T_s$ ) under different wind conditions

Sample name	Sample ID	Surface Temperature ( $^{\circ}\text{C}$ )		
		Low Wind( $h_w=5 \text{ W m}^{-2} \text{ K}^{-1}$ )	Medium Wind( $h_w=12 \text{ W m}^{-2} \text{ K}^{-1}$ )	High Wind( $h_w=30 \text{ W m}^{-2} \text{ K}^{-1}$ )
Endura White (D)	SRI/03/14/1127	54.4	47.9	42.5

### 4. Certificate of Accuracy:

This is to certify that the test results herein presented are, to the best of my knowledge, true and accurate representations of the samples submitted.

Dr. V. P. Patel  
Technical Director  
Building Energy Performance Laboratory

#### Disclaimer:

- The CARBSE / BEPL are not responsible for any kind of alterations in the physical property of the sample and the customer is solely responsible for it and its consequences.
- Result relates to the sample tested only. Sample will be destroyed after 7 days of issue of the report unless specified by the customer.
- Any complains about this report should be communicated in writing within 7 days of issue of the report.
- The test report shall not be reproduced fully or partially or in parts and cannot be used as an evidence in a court of law and shall be used in advertising media without written approval of Executive Director, BEPL

BEPL, Centre for Environmental Planning and Technology, K. L. Campus, Navrangpura, Ahmedabad-380 009  
Phone No: 079-26302470- Extn: 383, 26302740 Fax: +91 79 26302075 Email: ashajoshi@cept.ac.in/bepl@cept.ac.in  
Page 2 of 2

FTR01/SRI\_ISSUE No. 2





## Exclusive Company Experience Centres

Branch	Address	Tel.:
Kolkata	83 JBS Haldane Avenue, TOPSIA Trinity, Kolkata 700046.	033-46021880
Guwahati	1 <sup>st</sup> Floor, Above Royal Riders Honda, Near Rahul Kata, Pub Bazaar, Garchuk, Guwahati 781035	7604092937
Bhubaneswar	229 / 5332, Gautam Nagar, Bhubaneswar 751014.	0674-2430240
Thane	Shop No.5, Gr.Floor, Cosmos Jewels, Near Dmart, Anand Nagar, Ghodbunder Road, Thane(WI) 400615.	022-25867600
Pune	Sable House, Poona Snuff Factory, Sr. No 11A, Plot 408/4/5, Satara Road, Gultekadi, Pune - 411037	7350009364
Ahmedabad	F 106-107, Shivalak Plaza, IIM Road, Panjrapole Cross Road, Ahmedabad, Gujarat 380015	079-48480010
Indore	Shop No5, 6, 7 and 8, Upper Ground Floor, Exotica, Shakim Township, Village Niranjapur, A.B. Road, Indore (M.P) 452001	0731-4988340/ 4007441
Raipur	2nd Floor, MM Silver Plaza, Opp Udyog Bhawan, Ring Road - 1, Raipur-Chattisgarh 492001.	7714919129
Lucknow	1st Floor, Prithvi Ratan Height, Plot No CP-4, Vijayant khand - 3, Gomtinagar Yojna, Lucknow - 226010	0522-2721699
Chandigarh	Sco 214 sector14, Panchkula, Haryana 134109.	0172-4691000
Varanasi	Ashakunj 1st floor, D59/103 D4, Opp Siddharth Complex, Srigra Mehmoorganj Road, Varanasi. 221010.	0542-2222620
Coimbatore	Elysium Towers, Park Gate Rd, No. 21, ATT Colony, Gopalapuram, Coimbatore 641018	0422 4382698
Chennai	82,84 & 86 Bascon Maeru, 1st floor, Kodambakkam High Road, Nungambakkam, Chennai 600034	044-48611632
Cochin	Door no. 11/3001, Next to VTJ Hyundai, Nh 47 Kudanoor, Maradu, Ernakulam 682304.	0484-4098555
Calicut	Survey no 279/32, 279/33, Malaparamba Bypass, Kudilthod, Calicut, Kerala - 673002.	0495-2352474
Trivandrum	1st Floor, Sreedhanya Apex, TC 22/3720 (4) Vellayambalam, Sasthamangalam PO, Thiruvananthapuram Kerala - 695010.	0471-2551141
Andheri	1st flr, Bonanza, Sahar Plaza, Nr. Hotel Kohinoor Continental, J B Nagar, Andheri Kurla Road, Andheri East, Mumbai - 400059	8108030975

## PACKAGING DETAILS

Product	Nominal Size (cm)	No. of Tiles/box	Approx. Area/box (sq.m)	Approx. Weight/box (kg)	Approx Carbons / 20' Container	Approx Area / 20' Container (sq m)	Approx Carbons / 16T Truck	Approx sqm / 16T Truck
30x30 (0.8cm Thk) Dewas	30 x 30	10	0.9	15.6	1730	1557	1026	1140
30x30 (1cm Thk) Dewas	30 x 30	10	0.9	20.2	1336	1202	792	880
30x30 (2cm Thk) Dewas	30 x 30	5	0.45	20.2	1336	601	792	1760
40x40 (0.8cm Thk) Kunigal	40 x 40	8	1.28	22.2	1216	1556	721	563
30x30 (0.8cm Thk) Kunigal	30 x 30	10	0.9	16.1	1677	1509	994	1104
30x30 (1cm Thk) Kunigal	30 x 30	8	0.72	15.6	1730	1246	1026	1425

## TECHNICAL SPECIFICATIONS

S.No.	Test Description	ISO 13006 / EN 14411 Group Bla	IS - 15622:2017 Group Bib	JOHNSON ENDURA COOL ROOF TILE			Test Method
				8mm	10mm	20mm	
<b>A) Dimension Quality</b>							
1	Deviation in Length & Width	±0.6%	±0.1%	±0.1%	±0.1%	±0.1%	ISO 10545-2 / IS 13630-1
2	Deviation in Thickness	±5%	±5%	±4%	±4%	±4%	
3	Straightness of sides	±0.5%	±0.1%	±0.1%	±0.1%	±0.1%	
4	Rectangularity	±0.5%	±0.1%	±0.1%	±0.1%	±0.1%	
5	Surface flatness	±0.5%	±0.3%	±0.3%	±0.3%	±0.3%	
6	Surface Quality	Min 95%	Min 95%	Min 95%	Min 95%	Min 95%	
<b>B) Physical Properties</b>							
1	Water Absorption	<0.5%	0.08<E≤3	<0.5%	<0.5%	<0.5%	ISO 10545-3 / IS 13630-2
2	Scratch hardness of surface (Moh's scale)	—	≥5	≥6	≥6	≥6	IS 13630 part 13
3	Flexural Strength (Average MOR)	>35N/mm <sup>2</sup>	>30N/mm <sup>2</sup>	>35N/mm <sup>2</sup>			ISO 10545-4 / IS 13630-6
4	Breaking Strength	≥1300N	≥1100N	>1300N	>1800N	>8000N	
5	Impact Resistance	report value	≥0.55	≥0.55	≥0.55	≥0.55	ISO 10545-5 / IS 13630 -14
6	Crazing Resistance	Report Cycle	4 Cycle	No damage			ISO 10545-11 / IS 13630 - 9
7	Abrasion Resistance (PEI Rating)	Report Abrasion class	Class II, M in	M in PEI IV			ISO 10545-7 / IS 13630 - 11
8	Skid Resistance (Coefficient of Friction)	Manufacturer to declare		>0.42	>0.42	>0.42	ISO 10545 -17 /ANSI A 326.3
9	Bulk Density, in (g/cc)	≥2.0	≥2.0	≥2.2	≥2.2	≥2.2	ASTM C373-16 / IS 13630-2
10	Moisture expansion	Manufacturer to declare		≤0.3 mm/m			IS 13630-part 3 /ISO 10545-10
11	Frost Resistance	Manufacturer to declare		No Damage			ISO 10545-12 / IS 13630-10
12	Colour resistance to UV light	Report result	Report result	No Change in colour			DIN 51094
<b>C) Chemical Properties</b>							
Resistance to Chemicals							
1	1) Resistance to Low concentrations of acids & alkalies	GB	Resistant	GB	GB	GB	ISO 10545-13 / IS 13630-8
	2) Resistance to High concentrations of acids & alkalies						
	3) Resistance to Household Chemicals and swimming pool salts						
2	Stain resistance	Resistant	Resistant	Resistant			ISO 10545-14 / IS 13630-8
<b>D) Thermal Properties</b>							
1	Linear Thermal Expansion	Report Value	≤7 x 10 <sup>-6</sup> K <sup>-1</sup>	≤7 x 10 <sup>-6</sup> K <sup>-1</sup>			ISO 10545-8 / IS 13630 -4
2	Thermal shock resistance	No damage	10 Cycle . Min	No damage			ISO 10545-9 / IS 13630 -5
<b>E) Solar Reflectance Index (SRI)</b>							
		>78	—	>90 (White colour)			ASTM E1980, EN 673, and En411