

TEST REPORT FOR SOLAR REFLECTANCE INDEX (SRI)

CEPT UNIVERSITY
CEPT Research and Development Foundation,
CEPT University
Test Report for Solar Reflectance Index (SRI)

Report No: CRDF/RPT/SRI/412
Report Date: 12th February 2019

Report of test carried out by CEPT Research and Development Foundation for Solar Reflectance Index of Supplied Material.
The test results of the specimen submitted for Solar Reflectance Index on date 09th February 2019 are as under:

1. Customer Information

1.1. Name of the Organization: Somany Ceramics Limited

1.2. Contact Person: Mr. Ramakumar Singh

1.3. Address: Somany Ceramics Limited,
No. 30/31, Somany Ceramics Industries,
N.H. 8-A, Opp. Laxmi Bldg.,
Mumbai-400 001 (Gujarat)

1.4. Phone Numbers: 9227977543 / 9867025149

1.5. Fax Number: Not Available

1.6. Email: sri@somanyceramics.com

2. Sample Details

2.1. Sample Identification Number: SRI02/19/413

2.2. Date of Test: 11th February 2019

2.3. Name and any other pertinent: Identification of the material (including physical description): White Ceramic Tiles

2.4. Thickness of the specimen (Reported): 10 mm

2.5. Thickness as tested: Not Applicable

2.6. Condition of Sample when received: Satisfactory

2.7. Method and Environment used for conditioning (if used): Not Applicable

2.8. No. of Surfaces: Not Applicable

2.9. The type of surface: Not Applicable

2.10. Position of panel (if Multiple): Not Applicable

2.11. The position of coating(s) designating faces of the panel as 1, 2, 3 starting from the outer surface of panel 1: Not Applicable

2.12. The face of the panel (if Coated): Not Applicable

2.13. Instrument used: Spectrophotometer with integrating sphere with reference material Spectralon 8 P78R with IR specular reflector set.

2.14. Boundary Conditions (Test Method): ASTM E 1989-11, EN 12667:2001, EN 673:2011, and EN 410:2011.

3. Results of the measurement:

Solar Direct Reflectance

Sample name	Sample ID	Measurement 1	Measurement 2	Measurement 3	Average
White Ceramic Tiles	SRI02/19/413	0.8120	0.8108	0.8102	0.8109

Emissivity

Sample name	Sample ID	Measurement 1	Measurement 2	Measurement 3	Average
White Ceramic Tiles	SRI02/19/413	0.933	0.933	0.931	0.932

Solar Reflectance Index (SRI) under different wind conditions

Sample name	Sample ID	Solar Reflectance Index (SRI)
White Ceramic Tiles	SRI02/19/413	Low Wind (<1 M/s) 102 Medium Wind (1-3 M/s) 102 High Wind (>3 M/s) 102

Surface Temperature (T_s) under different wind conditions

Sample name	Sample ID	Surface Temperature (°C)
White Ceramic Tiles	SRI02/19/413	Low Wind (<1 M/s) 47.9 Medium Wind (1-3 M/s) 43.8 High Wind (>3 M/s) 40.4

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.

300x300mm

Yash Kumar Shukla
Lab. Supervisor

Yash Kumar Shukla
Technical Director

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300x300mm

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TECHNICAL SPECIFICATION FOR TEMP SHIELD COOL TILES

NOMINAL SIZE (MM)	THICKNESS (MM)	NO OF TILES/ BOX	AVERAGE WEIGHT (KG)	COVERAGE AREA PER BOX (SQM)
300X300 MM	10.00	8	11.80	0.72 Sq. mtr / 7.750 Sq. ft.

CHARACTERISTICS	Requirement as per IS 15622 :2017 E>10	Requirement as per ISO 13006 E>10	OUR VALUES	TEST METHOD
Dimension & Surface Quality				
Length & Width	± 0.20%	± 0.50%	± 0.1%	IS 13630 Part 1/ ISO 10545-2
Thickness	± 5.00%	±10.0%	± 4.0%	
Straightness of Side	± 0.15%	± 0.30%	± 0.1%	
Rectangularity	± 0.20%	±0.50%	± 0.2%	
Surface Flatness				
Center Curvature (%) [max.Deviation]	± 0.30%	+0.5% / -0.3%	± 0.22 %	IS 13630 Part 2/ ISO 10545-3
Edge Curvature (%) [max.Deviation]	± 0.30%	+0.5% / -0.3%	± 0.22 %	
Corner Warpage (%) [max.Deviation]	±0.30%	±0.5%	± 0.22 %	
Surface Quality	Min. 95 % of tiles will be free from visible defects	Min. 95 % of tiles will be free from visible defects	Min. 95 % of tiles will be free from visible defects	
Physical Properties				
Water Absorption	E ≥ 10 % when it exceeds 20 % this shall be indicated by the manufacturer	E ≥ 10 % when it exceeds 20 % this shall be indicated by the manufacturer	Av 10-20%	IS 13630 Part 2/ ISO 10545-3
Modulus of Rupture [N/mm ²]	Min 15	Average Min 15	Average 15	IS 13630 Part 6/ ISO 10545-4
Breaking Strength in N	Min 600	Not Less Than 600	Min 600	IS 13630 Part 3/ ISO-10545-10
Moisture Expansion in mm/m	0.04	Test Method Available	0.04	IS 13630 Part 13
Scratch Hardness of Surface (Mohs)	Min 3		Min-3	IS 13630 Part 4/ ISO 10545-8
Coefficient of Linear Thermal Expansion from Ambient Temperature To 100 °C	9X 10 ⁻⁶ K ⁻¹ Max	Test Method Available	Max 8 X 10 ⁻⁶ K ⁻¹ Max	IS 13630 Part 5/ ISO-10545-9
Thermal Shock Resistance	10 Cycle min	Test Method Available	10 Cycle Min	IS 13630 Part 9/ ISO 10545-11
Crazing Resistance	4 Cycle @ 7.5 Bar min	Required	4 Cycle @ 7.5 Bar min	IS 13630 Part 8 & ISO 10545-14
Chemical Resistance				IS 13630 Part 8/ ISO 10545-13
Stain Resistance	Min Class 1	Min Class 3	Class-1	
Resistance to Household Chemicals	Min Class AA	Minimum GB	Class AA	
Resistance to Acids and Alkalies [with exception of hydrofluoric acid and its compounds]	Required if Agreed	Test Method Available	Class AA	

SOMANY

Somany Ceramics Limited : Noida: F-36, Sector-6; Ph.: 0120-4627900.
Ahmedabad: Office no. 7-14, 4th Floor, Aggarwal Mall, Opp. Sola Bhagwat Vidyapeeth, S.G. Road, Sola, Ph.: 079-66042500 to 599
Registered office: 2, Red Cross Place, Kolkata - 700001; Ph.(033) 22487406/5913
www.somanyceramics.com | e-mail marketing@somanyceramics.com

Toll Free No. 1800-103-0004 (Timing-10:00am to 6:30pm; Mon-Fri)



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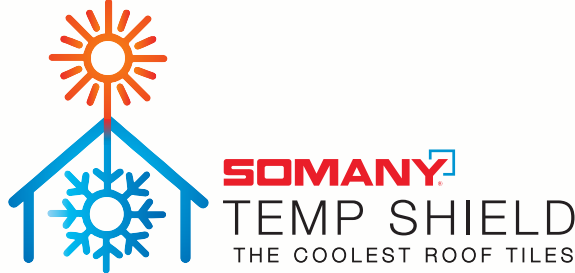
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CERAMIC / CAT / DECEMBER 2022

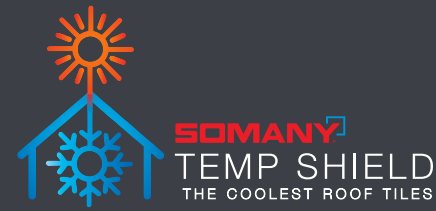


300x300mm

COOL TILES
COLLECTION

UNIT - 3

300x
300mm
COOL WHITE



Discover the magic of Temp Shield tiles:
The smarter way to keep your home,
cooler, protected and energy-efficient.

WIDE APPLICATION POSSIBILITIES



Roof / Terraces



Balconies



Courtyards

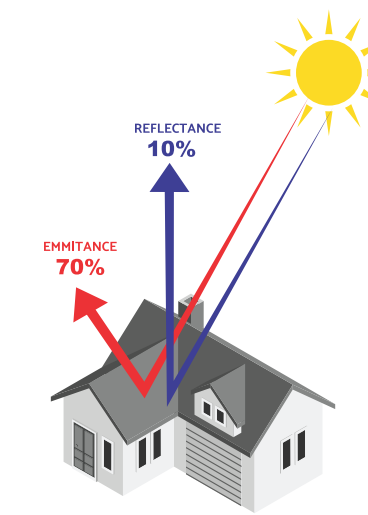


Swimming Pools

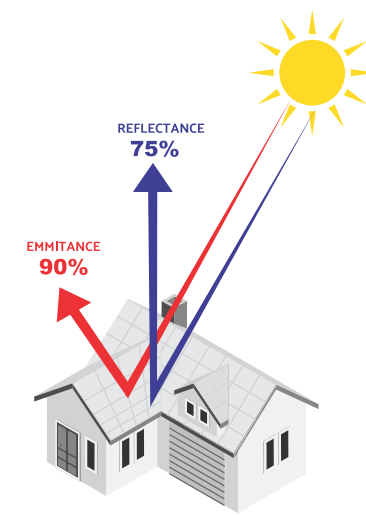
ENJOY THE UNBEATABLE EDGE

- Effectively reduce temperature of surface (By 10 to 20 degree Celsius) thereby making inside room cooler.
- Saves big on electricity by lowering energy demand.
- Fights against UHIE "Urban Heat Island Effect" due to its high reflectance of sunlight & heat.
- Protects your building from damage due to high heat conduction.
- Meeting guidelines set by IS standards / IGBC & CPWD for energy efficient roof.
- Our Temp Shield tiles comes with Ceramic Body which makes it long lasting.

DIFFERENCE BETWEEN ORDINARY TILE & TEMP SHIELD TILES



ORDINARY ROOF



ROOF HAVING
TEMP SHIELD TILES ROOF