

BEAT THE HEAT WITH A

COOL

SOLUTION!



LUNE TILES[®]

Beat the heat

An ISO 9001:2015 Certified Company

Cool Roof Tiles

www.lunetiles.com

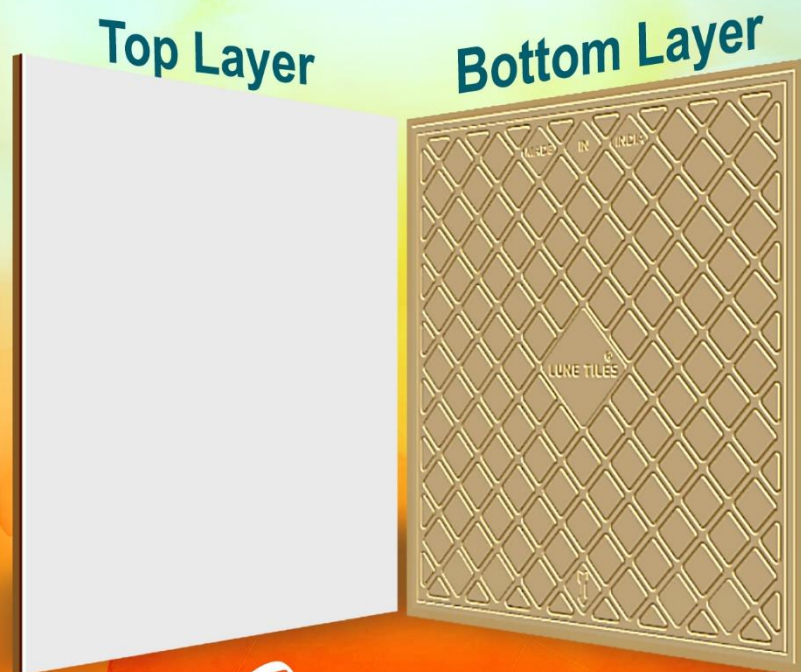


LUNE CERAMIC

Lune ceramic cool roof tile is a cost-effective solution that shields your home from summer heat while also being light in weight, which aids in roof weight reduction. Lune ceramic tile is ideal for terraces, balconies, pathways, and other outside surfaces since it reflects heat from the sun and keeps your home cool. Matte finished with Anti - Skid property. Easy to maintenance eco-friendly product.

Specification

Color	White
Size	300 mm x 300 mm
Thickness	± 8 mm
Type	Matte Finish Anti-skid property Ceramic body
Coverage	1 Sq.Ft
Weight	± 1.20 kg
Water Absorption	4-7%
Solar Reflection Index	SRI - ≤ 99



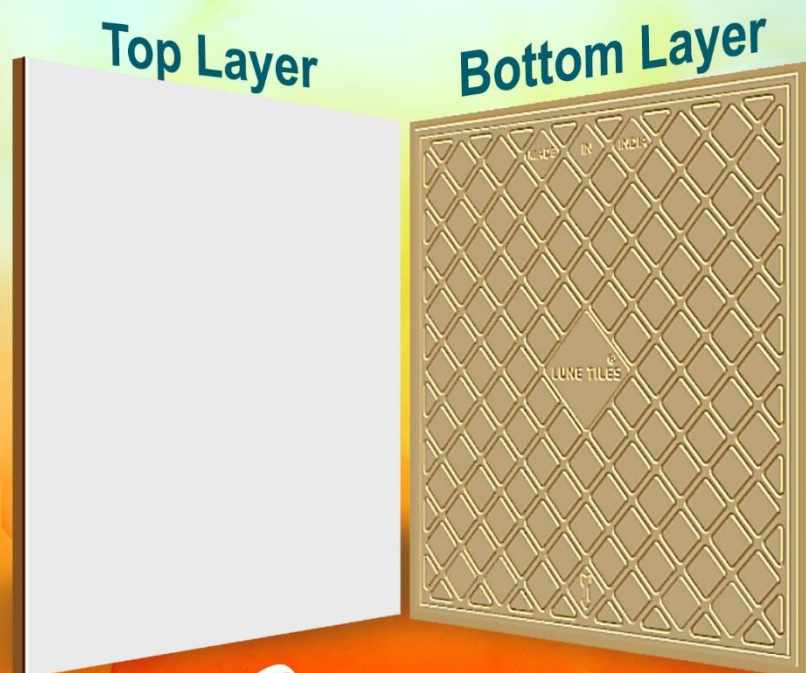
Ceramic

LUNE CERAMIC⁺

Lune ceramic cool roof tile is another premium product which protects your house and family from the summer. suitable for terraces, balcony and exterior surfaces which reflect the hot sun rays and keep your house cool. In order to ensure the anti skid property we have to ensured the tile surface is matte finished. Maintenance of this tiles is significantly easy as other lune cool roof tiles. Stains, dirt and liquids can be swiped or mopped away.

Specification

Color	White
Size	300 mm x 300 mm
Thickness	± 10 mm
Type	Matte Finish Anti-skid property Ceramic body
Coverage	1 Sq.Ft
Weight	± 1.47 kg
Water Absorption	4-7%
Solar Reflection Index	SRI - ≤ 99

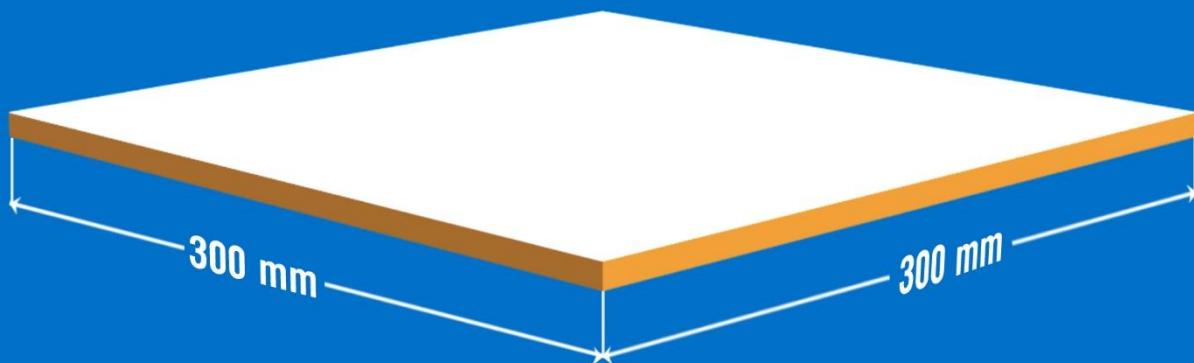


Ceramic⁺

Benefits of Lune Ceramic Tiles

- Lune ceramic cool roof tile is another premium product which protects your house and family cool in the summer.
- Lune ceramic tile is suitable for terrace, balcony, pathway and exterior surfaces which reflect the hot sun rays heat and keep your home cool.
- To ensure the anti-slip property, we ensured that the tile surface is matte finished, which is both aesthetically pleasing and suitable for thermal insulation.
- Lune tile is available in 300mm x 300mm x 10mm and 8 mm thickness, making it an ideal size for construction and easy to handle.
- Maintenance of this tiles is significantly easy .Stains, dirt and liquids can be easily swiped or mopped away.
- Lune ceramic tile enhances the beauty of your home while also keeping your home cool.

Available Thickness: 8mm / 10mm



Heat Resistant



Lightweight



High Strength



Power Saving



Anti Skid



Low Cost



Anti Fungal



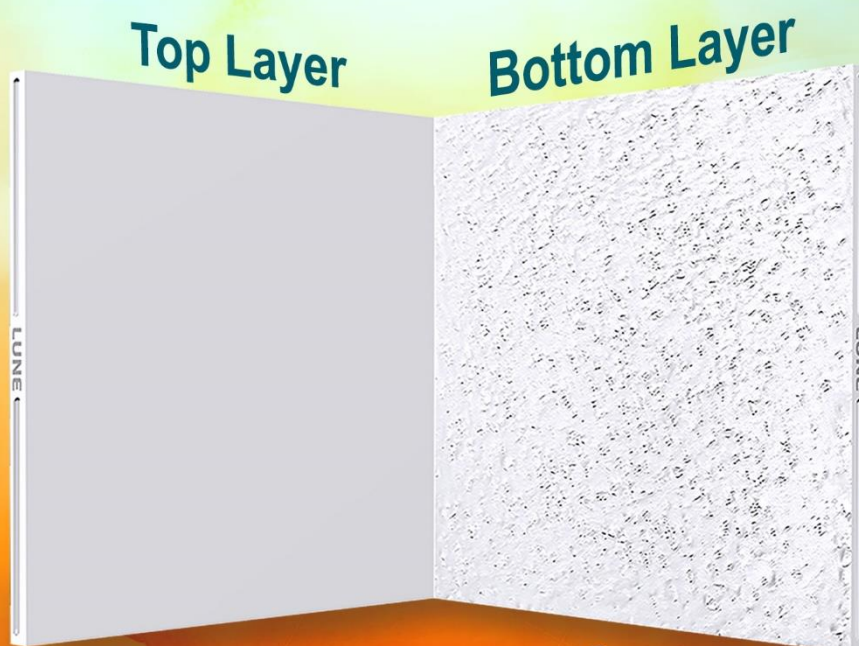
Stain Free

LUNE GOLD⁺

Lune Gold+ (Premium quality) It is manufactured as Top to bottom 15mm single compound. It is made with natural minerals that can reflect heat. Its nature never changes.

Specification

Color	Full White
Size	10 inch x 10 inch
Thickness	± 15 mm
Type	Top to Botom Cooling Minerals
Weight	± 2.10 kg
Water Absorption	< 6%
Warpage	0.15%
Flexural Strength	4.9 N/mm²
Solar Reflection Index	SRI - 94



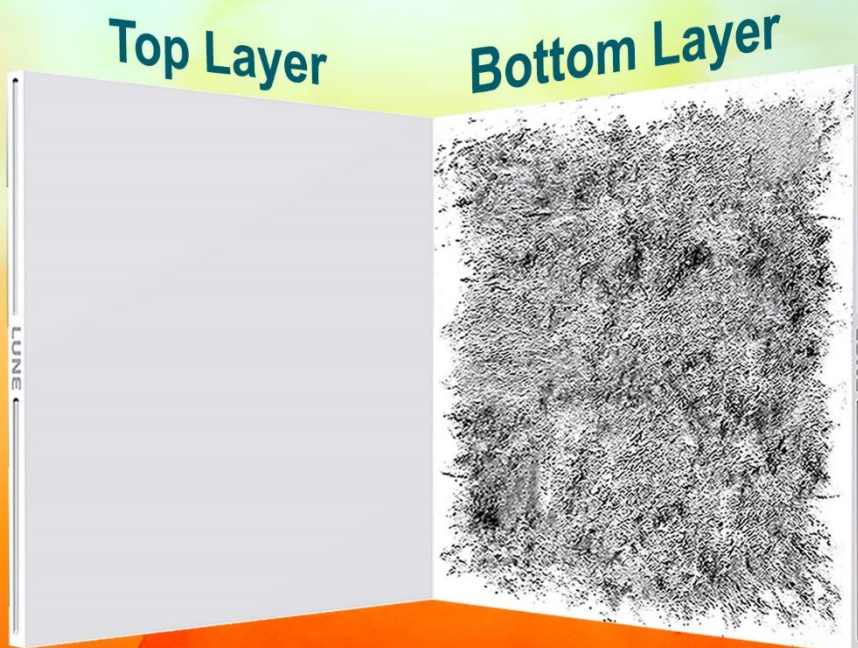
Gold⁺

LUNE SILVER⁺

Top layer 3 to 5 mm contains white minerals . The bottom layer is filled with gray cement concrete. This silver+ economic product.

Specification

Color	Top White Bottom Grey
Size	10 inch x 10 inch
Thickness	± 15 mm
Type	Top 3mm to 4mm Cooling Minerals Bottom Concrete Base
Weight	± 2.10 kg
Water Absorption	< 6%
Warpage	0.15%
Flexural Strength	4.9 N/mm²
Solar Reflection Index	SRI - 94



Silver⁺

Benefits of Lune Tiles

Better living conditions

Usable and pleasant roof space

Less roof weight

Increase building life

Antifungal and anti skidding

Reduced load on A/C systems

Saves electrical energy

Avoid steel corrosion on roof concrete

Enhanced water proofing protection

Less stain absorption

Easily washable

Reduces the roofing expenditure



Lune Tiles[®] are also called as

Cool Roof Tiles | White Tiles | Weathering Tiles | Cooling Tiles

Cool Tiles | Thermal Insulation Tiles | White Roof Tiles

Heat Resistance Tiles

Features



Due to the fact that Lune tiles is white. It reflects solar energy without transmitting it and combines it with air to regulate the temperature of the house's interior.

By avoiding weathering course for laying Lune tiles, you can save from Rs.10 to Rs.15 per sq.ft



Lune tiles reduce the overall weight of the building roof by 20% by using minimal material without weathering course

By minimizing heat inside our home by reflecting the sunlight on the terrace itself, Lune tiles will decrease the usage of A/C as well as save electricity.



The Lune tiles have a flexural strength of 4.9 N/mm² and are three times more durable than those specified by the IS Standard.

Lune tiles are environment-friendly tiles which is capable of reflecting sun rays back to the atmosphere. This is made up of naturally occurring minerals which are 100% Eco-Friendly and saves nature.



Even though the Lune tile surface is smooth, it is absolutely anti-skid and you can walk under any conditions.

Our cool roof tiles are made of naturally occurring materials which prevent the growth of fungal objects.



Economical

For red tiles, you have to spend additional expense of approximately Rs.140 to Rs.150 for weathering course materials and also for labour charge for that and for laying red tiles overall. But for our Lune tiles, no need of weathering course. So for waterproof coat and rainwater sloping (where it needed), it may cost approximately from Rs.120 to Rs.130 overall. So when compared with red tiles, you can save Rs.10 to Rs.20 per sq.ft.

< APPROXIMATE VALUE FOR 1 SQ.FT* >

LUNE TILES

Cost for grano flooring

Cement	-	3.00
M.Sand	-	6.50
Baby chips	-	5.50
Water proof coat and labour	-	19.00

Cost for laying tiles

LUNE TILE Per Sq.Ft (10 x 10 inch LUNE S+ 24 RS)	-	36.00
Cement	-	6.00
M.Sand	-	6.50
Water proof compound, grout and spacer	-	9.40
Laying labour (First floor)	-	33.00
TOTAL		<u>125.00</u>

CLAY RED TILES

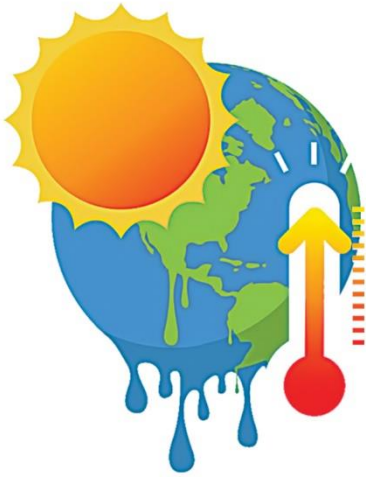
Cost for weathering course

Lime powder	-	6.00
Brick jalli	-	16.50
Kadukka + Jaggery	-	5.00
Labour	-	30.00

Cost for laying tiles

Clay red tile Per Sq.Ft (9 x 9 inch RED TILE 20 RS)	-	34.00
Cement	-	6.00
M.Sand	-	9.75
Red - oxide and water proof liquid	-	4.50
Laying labour (First floor)	-	30.00
TOTAL		<u>142.00</u>

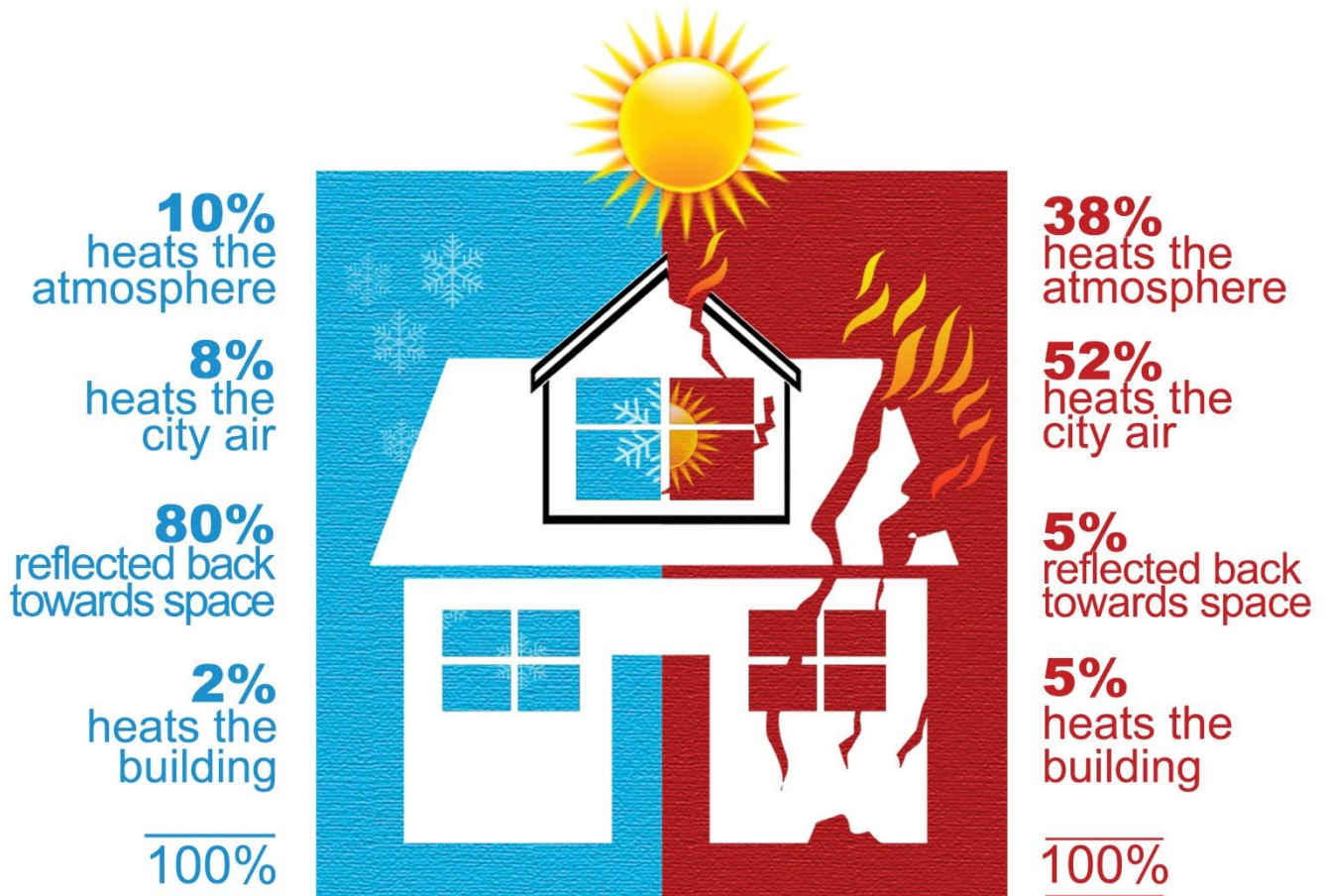
How Lune tiles helps in prevention of global warming?



Due to the increase of carbon-di-oxide and greenhouse gases in atmosphere, the abnormal rise of the Earth's temperature is said to be global warming. The average temperature approximately increased upto 0.8 degree celcius.

Reflective Versus Non-reflective Roof

Where Does The Heat Go?



To prevent global warming due to climate change, changing the building roofs to white colour will decrease the changes in climatic conditions and also decrease global warming. This is proved by several types of research and also so many countries create awareness among people about this.



Lune Ceramic Tiles

Laying Instruction



Stage 1:

Before laying Lune cool Tiles on your roof, first clean the entire floor using either water or air-blower completely. After that Coat the terrace twice with water proof liquid and grey cement in 1:1 proportion on both horizontal and vertical direction. Complete the first coating in horizontal direction, leave it to dry and then make second coating in vertical direction. And also, double coat the parapet wall up to 8 inches from bottom. Retain water in the coated surface for at least 3-5 days and after confirming that there is no leakage of water, start the process of laying Lune tiles.

Stage 2:

Mark the sloping points for free flowing of water. After that, spread “Grano flooring” concrete through sloping points. For preparing Grano Flooring use the proportion ratio of 1: 2: 4, which means 1-part Cement, 2-parts M-Sand and 4 -parts of 8-12mm blue metal chips. Based on the surface area, fix more than one rainwater drain pipe to decrease up to 10-15% usage of the construction materials and also reduces the roof weight and cost.

Stage 3:

Prepare the base work for the Grano Flooring concrete surface in the proportion of 1:6, which is 1 part cement to 6 parts sand or M-Sand and Spread the cement-and-water mixture on the surface before it dries up. Afterward, depending on the requirements of the cement, water mix, you can also add a water-proofing chemical for further waterproofing. For proper retention of tiles over the cement, make some Thinsets accordingly on the surface. Fix Lune Ceramic Tiles by soaking it in water and leaving an 5 mm gap between each tile on the surface where the Thinsets were produced. Additionally, use the 8mm spacers between the tiles to create uniform and tidy gaps. While fixing Lune Tiles, it is better to follow the method of an alternate joint fixing pattern (Break Joint). Avoid walking on the surface of tiles immediately after fixing. You must lay the tiles by spreading the composition approximately 120 sq.ft to 150sq.ft because if the composition is spread in large area, it will dry soon and the grip of the tiles with cement fix will be minimal. So better avoid this method. And try to avoid walking, it is advised to begin fixing tiles from wall side and end towards the door side. Most importantly use required amount of water proof liquid for the Grano flooring, basement composition while fixing tiles and preparing cement mix.

Stage 4:

For skirting tiles, cut Lune Tiles into three pieces using cutting machine by marking equally. To avoid leakage of water along the corners, make scoring points over the bottom of the parapet walls. And to make cement mix for soft compound with the ratio 1:3, using 1-part of cement and 3-parts of sand along with adequate water and water proofing liquid after that paste the compound on the parapet wall along 45-degree angle. After next day, walk on the installed tiles with your barefoot to observe the hold of tiles in flooring. if you find the loose hold, please remove the tile and replace with another tile. By following this steps, we can able to avoid the cracks developed in future.

Stage 5:

To fill the gap between the tiles, use Sanded grouting material and fill consistently over the gaps between the tiles laid. After an hour, the surface will become dry after being cleaned with a moist towel to remove any excess soft mortar mixture. Once more, use a moist cloth to clean the entire roof area to have a nice, clean roof. Pour water on the roof twice daily, in the morning and evening, for roughly two days. After then, it is advised to keep water on the roof for two days.

Lune Tiles handling Instructions

It is important to stock Lune Tiles in a proper way. You have to stock Lune Tiles in a vertical manner. There is a chance for tiles to get damage while stacking in a horizontal manner. So better avoid stacking more tiles in horizontal manner.



Lune Non-Ceramic Cool Tiles

Laying Instruction



Stage 1:

Before laying Lune cool Tiles on your roof, first clean the entire floor using either water or air-blower completely. After that Coat the terrace twice with water proof liquid and grey cement in 1:1 proportion on both horizontal and vertical direction. Complete the first coating in horizontal direction, leave it to dry and then make second coating in vertical direction. And also, double coat the parapet wall up to 8 inches from bottom. Retain water in the coated surface for at least 3-5 days and after confirming that there is no leakage of water, start the process of laying Lune tiles.

Stage 2:

Mark the sloping points for free flowing of water. After that, spread "Grano flooring" concrete through sloping points. For preparing Grano Flooring use the proportion ratio of 1: 2: 4, which means 1-part Cement, 2-parts M-Sand and 4 -parts of 8-12mm blue metal chips. Based on the surface area, fix more than one rainwater drain pipe to decrease up to 10-15% usage of the construction materials and also reduces the roof weight and cost.

Stage 3:

Prepare the base work for the Grano Flooring concrete surface in the proportion of 1:8, which is 1 part cement to 8 parts sand or M-Sand and Spread the cement-and-water mixture on the surface before it dries up. Afterward, depending on the requirements of the cement, water mix, you can also add a water-proofing chemical for further waterproofing. For proper retention of tiles over the cement, make some Thinsets accordingly on the surface. Fix Lune Tiles by leaving an 8mm gap between each tile on the surface where the Thinsets were produced. Additionally, use the 8mm spacers between the tiles to create uniform and tidy gaps. While fixing Lune Tiles, it is better to follow the method of an alternate joint fixing pattern (Break Joint). Avoid walking on the surface of tiles immediately after fixing. You must lay the tiles by spreading the composition approximately 120 sq.ft to 150sq.ft because if the composition is spread in large area, it will dry soon and the grip of the tiles with cement fix will be minimal. So better avoid this method. And try to avoid walking, it is advised to begin fixing tiles from wall side and end towards the door side. Most importantly use required amount of water proof liquid for the Grano flooring, basement composition while fixing tiles and preparing cement mix.

Stage 4:

For skirting tiles, cut our Lune Tiles into two pieces using cutting machine by marking in centre. To avoid leakage of water along the corners, make scoring points over the bottom of the parapet walls. And to make cement mix for soft compound with the ratio 1:3, using 1-part of cement and 3-parts of sand along with adequate water and water proofing liquid after that paste the compound on the parapet wall along 45-degree angle. After next day, walk on the installed tiles with your barefoot to observe the hold of tiles in flooring. if you find the loose hold, please remove the tile and replace with another tile. By following this steps, we can able to avoid the cracks developed in future.

Stage 5:

To fill the gap between the tiles, prepare the soft mortar mix with 1-part of white cement along with 1-parts of fine sand and also it is important to add the water proofing liquid while preparing. You can also use either white sand or marble powder as an alternative for fine sand while preparing soft mortar mix. And fill the soft mortar mix consistently over the gaps between the tiles laid. After an hour, the surface will become dry after being cleaned with a moist towel to remove any excess soft mortar mixture. Once more, use a moist cloth to clean the entire roof area to have a nice, clean roof. Pour water on the roof twice daily, in the morning and evening, for roughly two days. After then, it is advised to keep water on the roof for two days.

Lune Tiles handling Instructions

It is important to stock Lune Tiles in a proper way. You have to stock Lune Tiles in a vertical manner. There is a chance for tiles to get damage while stacking in a horizontal manner. So better avoid stacking more tiles in horizontal manner.

SRI TEST CERTIFICATE

CEPT
UNIVERSITY

CEPT Research and Development Foundation,
CEPT University

Test Report for Solar Reflectance Index (SRI)



TC-7020

ULR-TC702019000000056F

Report No: CRDF/RPT/SRI/414

Report Date: 12th February 2019

3. Results of the measurement:

Solar Direct Reflectance

Sample name	Sample ID	Measurement 1	Measurement 2	Measurement 3	Average
Lune Tiles	SRI/02/19/1415	0.7517	0.7521	0.7528	0.7522

Emissivity

Sample name	Sample ID	Measurement 1	Measurement 2	Measurement 3	Average
Lune Tiles	SRI/02/19/1415	0.936	0.936	0.935	0.936

Solar Reflectance Index (SRI) under different wind conditions

Sample name	Sample ID	Solar Reflectance Index (SRI)		
		Low Wind($h_c=5 \text{ W m}^{-2} \text{ K}^{-1}$)	Medium Wind($h_c=12 \text{ W m}^{-2} \text{ K}^{-1}$)	High Wind($h_c=30 \text{ W m}^{-2} \text{ K}^{-1}$)
Lune Tiles	SRI/02/19/1415	94	94	94

Surface Temperature (T_s) under different wind conditions

Sample name	Sample ID	Surface Temperature ($^{\circ}\text{C}$)		
		Low Wind($h_c=5 \text{ W m}^{-2} \text{ K}^{-1}$)	Medium Wind($h_c=12 \text{ W m}^{-2} \text{ K}^{-1}$)	High Wind($h_c=30 \text{ W m}^{-2} \text{ K}^{-1}$)
Lune Tiles	SRI/02/19/1415	52.7	46.9	42.0

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.

Jigar Patel
Lab. Supervisor



Yashkumar Shukla
Technical Director

Disclaimer:

1. The CEPT Research and Development Foundation, CEPT University is 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.
2. Result relates to the sample tested only. Sample will be destroyed after 7 days of issue of the report unless specified by the customer.
3. Any complains about this report should be communicated in writing within 7 days of issue of the report.
4. 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 Director, CEPT Research and Development Foundation, CEPT University.

NTH TEST CERTIFICATE

FORM NO : NTH/CHN/F5



भारत सरकार Government of India
राष्ट्रीय परीक्षण शाला (द.क्षे.)
NATIONAL TEST HOUSE (SR)
तरमणी, चेन्नई - 600 113. Taramani, Chennai - 600 113.
Phone : 22432374, 22431157 Fax : 22433158 email : nthsr@tn.nic.in

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Test Certificate No.	Date of Issue:	Code No.	No. of Pages:
NTH(SR)/CIV(G)/2020/005384M	24/06/2020	5384	1 of 1

Annexure

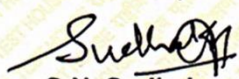
As desired, the Cool Roof tiles sample marked "LUNE" was subjected to the following tests on the lines of IS 2690(1):1993 (second revision) with the results noted below:

Sl.No	Nature of Tests	Results obtained
1.	Dimension	
1.1	Average length of each side, mm	255
1.2	Average thickness, mm	15
2.	Test for Warpage	
	Maximum warpage observed, percentage	0.15
3.	Test for Water Absorption	
	Average water absorption by mass, percentage	6
4.	Test for Flexural strength	
	Average Modules of rupture, N/mm ²	4.9

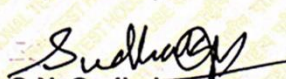
Tested by


Jaswant Deepak Bara
Scientific Assistant(Mechanical)

Checked by


G.N. Sudhakar
Scientist D (NDT)

Approved by


G.N. Sudhakar
Scientist D (NDT)

LUNE COOL ROOF TILES

SRI94
Solar Reflectance Index

மொட்டை மாடியின்
வெப்ப
தாக்கத்திலிருந்து
விடுபட...
ஜிஸ்ஸூலு
ஒரு தீர்வு...!



LUNE TILES
COOL ROOF TILES

Solar Reflectance:

The fraction of solar energy that is reflected by the roof.

The sun's radiation hits the roof surface

Thermal Emittance:

The relative ability of the roof surface to radiate absorbed heat.

Lune Cool Roof

Heat is reflected by lune cool roof and maintains the room cool

Dark Roof

Heat is absorbed by roof and transferred to the building below

Customer's Attention

The Lune tiles box should be arranged in the roof or the floor, same to how it is vertically positioned in a transport truck.

Ensure that the area has been coated with a water-proof material and inspected for any leaks before laying the Lune tiles.

For rainwater pavement and to prevent weather courses, we must create one-inch or larger chip concrete (Grano Flooring) in the necessary locations.

When laying Lune Tiles, use 8mm spacers between the tiles to provide regular and tidy gaps, and it is preferable to utilise an alternate joint fixing pattern (Break Joint).

The next day, we must massage the tile's surface with water (Curing) in the morning and evening and walk barefoot over the newly installed tiles to gauge how well they hold up the flooring. Please take out the tile and replace it with another tile if you discover a loose hold. By doing these actions, we can prevent additional fractures from forming.

It is important to add water proofing liquid with concrete and soft motor mix according to the specifications while laying Lune tiles.

For further details please watch
our lune tiles youtube channel
www.youtube.com/lunetiles

www.lunetiles.com

 044-22 44 2222

 80125 77 333

