

THERMAL
INSULATION
IS A PASSIVE
INVESTMENT
WITH RETURNS
EVERY DAY

HEATBLAZER SYSTEM

INNOVATIVE HEAT INSULATION WITH WATERPROOFING



THE FACTS

- » Buildings world over consume more than 40% of the Energy Generated followed by Industries (32%) and Transportation (28%)
- » Heating & Cooling (Space Conditioning) account for 50% to 70% of the total energy used in a typical establishment.
- » Heat gain/loss in a building is the major contributor to the high load on air-conditioning
- » Building Envelope (roof, walls & floor) contributes to 75-85% of heat, especially by infra red and ultra violet rays of the sun.
- » Building materials being good conductors of heat radiate this to the inside and trap it there.

While the rest of the earth cools down after the sun sets, our homes are still warm inside.

WHY ROOF INSULATION IS NEEDED

Roof of buildings Receive the maximum (70%) amount of Radiant heat and allow large quantities of heat to enter the building Envelope Resulting in:

- » Increase in temperature inside the Buildings
- » Inside Temperature is likely to go above than the outside Ambient
- » Higher Air Conditioning Loads and increased running time of the Compressors
- » Higher Energy cost

INSULATION IS NEEDED

- » To effectively manage heat incidence in the buildings and save on the high energy cost.
- » As inadequate insulation and air leakages are leading causes of energy waste.
- » As insulation saves money and energy resources
- » Because thermally insulated building provides great comfort both in summer and winter.
- » For sustainable & green construction

OVERDECK VS UNDERDECK INSULATION

UNDERDECK

DISADVANTAGES

- » Roof slab is subject to stress due to change in temperature differences in the ambient
- » This system allows heat energy to be absorbed by top deck. This hot mass of concrete radiates heat into the environment.
- » The terrace slab gets heated up by direct solar radiation and this heat passes through the under-deck insulation and increases the load on the air-conditioning system.
- » Materials like rockwool & glass-wool using formaldehyde as resin – are carcinogenic (may cause cancer) and banned in Europe & the US

OVERDECK

ADVANTAGES

- » LEED-India, the green rating system for buildings advocates over-deck insulation for roofs as against the conventional way of under-deck insulation.
- » The RCC/roof slab is not allowed to absorb heat, even during the hottest summer days, keeping indoor temperatures within a comfortable range.
- » Provides a barrier against direct solar heat on RCC roof slab preventing the slab from heating up thus not only avoids thermal bridging but also increases the life span of the building due to decreased heat stresses in slab.
- » Does not interfere with inside ongoing activities & very fast application

It is a single component universal thermal insulating water resistant structural protective system with an innovation of third generation advanced polymer technology - a linear aliphatic polymer based formulation. It is an advanced chemical technology product manufactured by combination of polymer, plasticizers, combination of light fast & weather durable coloured pigment, properly graded selective reinforcing filler, European

thermal nonconductive microcell material and wide range of performance additives. On application it forms a waterproof elastomeric seal in the form of monolithic uniform coat that provides protection from ultraviolet & Infra red rays, ageing and normal weathering. It reflects heat as well as it does not allow the heat flux transmission. It reduces building maintenance cost as well as saves air conditioning energy.

- » Resist heat on all roof surfaces such as RCC, Concrete, Metallic, Asbestos, GI, Galbanum sheets, Pre-Coated roof sheets and Poly-flex.
- » Unique non-conductivity (to heat) property keeps the building warm in cold season and cool in hot season.
- » Eco friendly for green building constructions.
- » Saves electricity due to lower temperature and load on AC.
- » Lightweight-puts less stress on the building.
- » Excellent adhesion strength and abrasion

resistance

- » High reflective - light reflection, value of 92 at 700nm with Solar Reflective Index of 120.
- » Roof temperature reduction: up to 20°C in peak summer

MOST IMPORTANT BENEFIT with HEATBLAZER system is that the waterproofing treatment which is required generally before overdeck insulation is not needed as this is an **INTEGRATED SOLUTION OF HEAT INSULATION WITH WATERPROOFING** for terraces.

COMPARISON SHEET

HEAT REFLECTIVE PAINTS

- » Works on reflection of sunlight, deteriorates fast with time
- » Generally not recommended for horizontal surfaces.
- » Needs to be white to get optimum efficiency
- » Maximum reduction claimed upto 5°C in peak summers.
- » Limited lifespan and threat of aberration on terraces
- » Not resistant to carbonation and non stable in Alkalis.
- » Generally not warranted for terraces
- » Inconvenient, Costly and Time Consuming

HEATBLAZER SYSTEM

- » Works on insulation along with reflection, remains same for years
- » Meant for terrace and rooftops.
- » Many colour options can be provided.
- » Reduction of upto 20°C between treated and non treated surface in peak summers
- » Very long life (three times) and no threat due to top hard coating.
- » Resistant to carbonation and stable in Alkalis.
- » 10 years warranty for terraces
- » Simple, Cost Effective and Time saving

HEATBLAZER TECHNICAL DATA

Appearance & colour	White coloured flowing consistency material
Density at 30°C	0.90+0.05 gms/cc
Non-volatile content	60+05% by weight
Surface dry time at 30°C	5 to 10 minutes
Complete curing time	3 to 4 days
Dry Film Thickness	80 to 100 microns per coat
Final finish	Smooth
Hardness (ASTM D 2240)	70 to 80 Shore A
Tensile strength at break (ASTM D 412)	15 -20 kg/ Sq Cm
Elongation at break (ASTM D 412)	100%
Service temperature range	-30°C to + 90°C
High temperature resistance	+125°C
Light Reflectance Value	92 at 700 nm
Solar Reflective Index (ASTM E1980)	120
Roof temperature reduction	Up to 20°C

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6 States, 20 cities and Growing