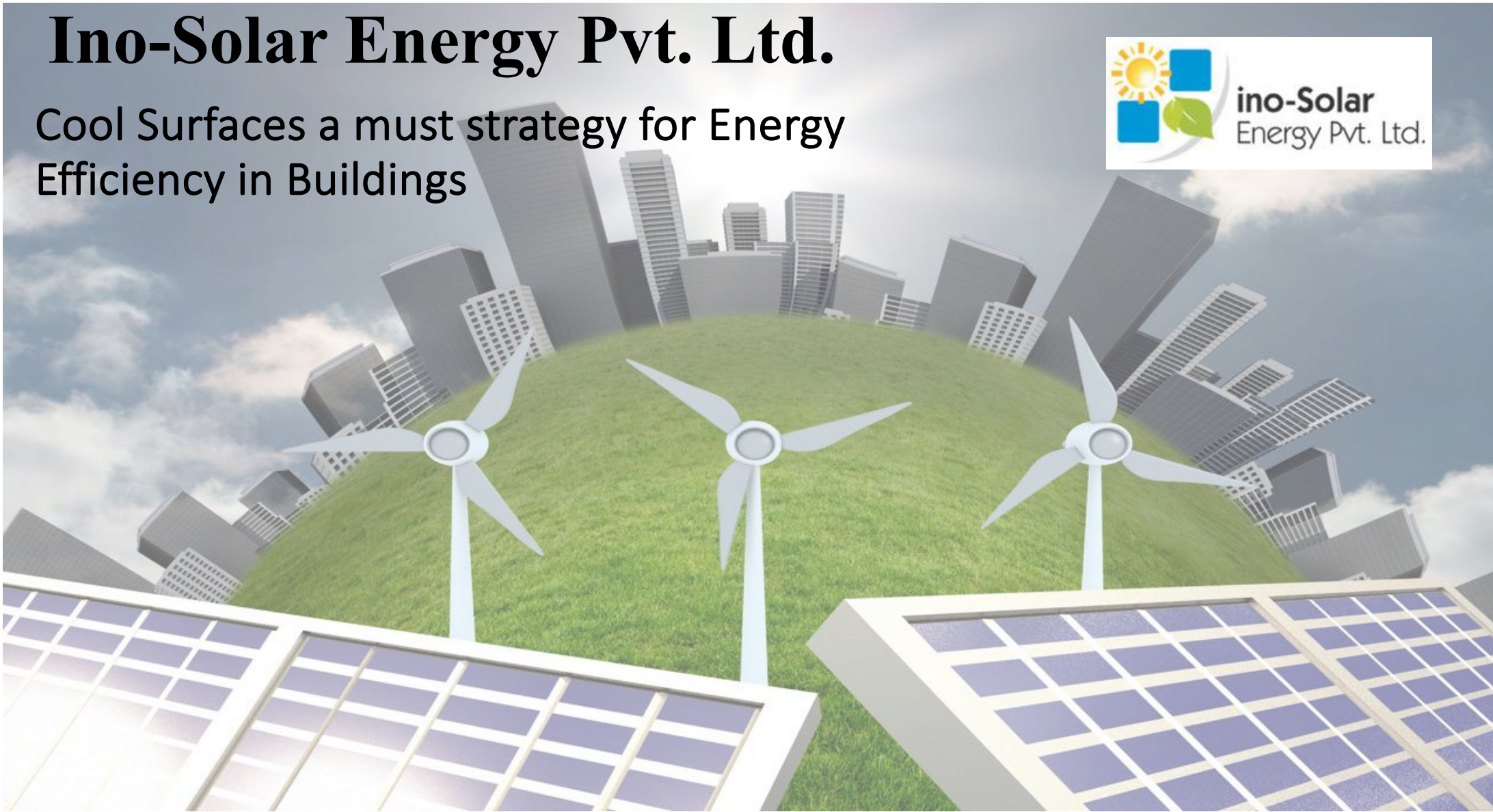


Ino-Solar Energy Pvt. Ltd.

Cool Surfaces a must strategy for Energy Efficiency in Buildings



About the Group...

UNpa Engineering

- The company started in 2003 is ISO 9001-2015 certified to manufacture diesel engine components
- The Company forayed into Solar Power business primarily focused on Roof Top Solar projects
- UNpa is planning 5 MW of projects in India, including CAPEX as well as OPEX Models.

Ino-Solar Energy

- Ino-Solar Energy has a Global presence and is committed to providing world class Energy solutions to its customer
- Ino-Solar Energy is working on Smart Solar Micro-Grid Systems implementation in India & Africa and also under execution of Energy Saving Project in Mauritius for a large Electricity consumer
- Various new products like Nano-Technology based Cool Paints and Pre-Fabricated Homes are under development in India through JV partners from USA, China and South Africa

IndianSolarHub

- IndianSolarHub is a tool available online for a common man to understand what is Solar and How we can save using Solar.
- Encourage more and more persons from Rural and undeveloped areas as well as Housewives to learn and start Business in Solar –As a Marketing Chanel Partner or Service Partner and Offer online and courses on Solar Energy and Energy Conservation free to every user
- Form a structured network of clients, service providers, equipment providers and product providers related to Solar Energy



Mr. Bipin Shah owns WinBuild, Inc. in USA. He is a Certified Energy Manager (CEM) and a Certified Demand-Side Management Professional (DSM), has a B.S. and an M.S. in Mechanical Engineering and over 20 years of experience in energy efficiency research and technology advancement

He has played key role in technical & stakeholder engagement aspects of the R&D program management and execution within U.S. Department of Energy, U.S. Department of State, National Fenestration Rating Council, Cool Roof Rating Council, Lawrence Berkeley National Laboratory, Oak Ridge National Laboratory, Asia-Pacific Economic Cooperation (APEC), Global Cool Cities Alliance, and private sector.



Mrs. Ashwini Jagtap is a driving force behind the Solar Business. She is instrumental in Business Development and Management of Solar EPC Projects and Solar Products Business



Mr. Unmesh Jagtap has a Mechanical Engineering Degree from India and has done Master's Degree from University of Florida, Florida, Gainesville, USA, under the Guidance of one of the renowned Researcher in Solar Energy, Dr. Yogi Goswami. He is experienced in manufacturing of Solar PV Modules and as a System Integrator for designing and implementing various projects in Solar PV Power Plants, Solar water Heaters, Domestic Wind Turbines, Wind & Solar Hybrid Systems and Energy Solutions

Technology and JV Partners...



GreenBrilliance, USA

Solar Roof Top and Ground Mounted EPC Projects



PEER Africa WCC CC, South Africa

Solar Micro-Grids & Community Project



Winbuild Inc., Usa

R & D Centre, USA



Empores, USA

Energy Optimizer Units & Energy Conservation Projects



Cyber Power India Pvt. Ltd.

Solar Charge Controllers and Inverters



Milenium Solutions, USA

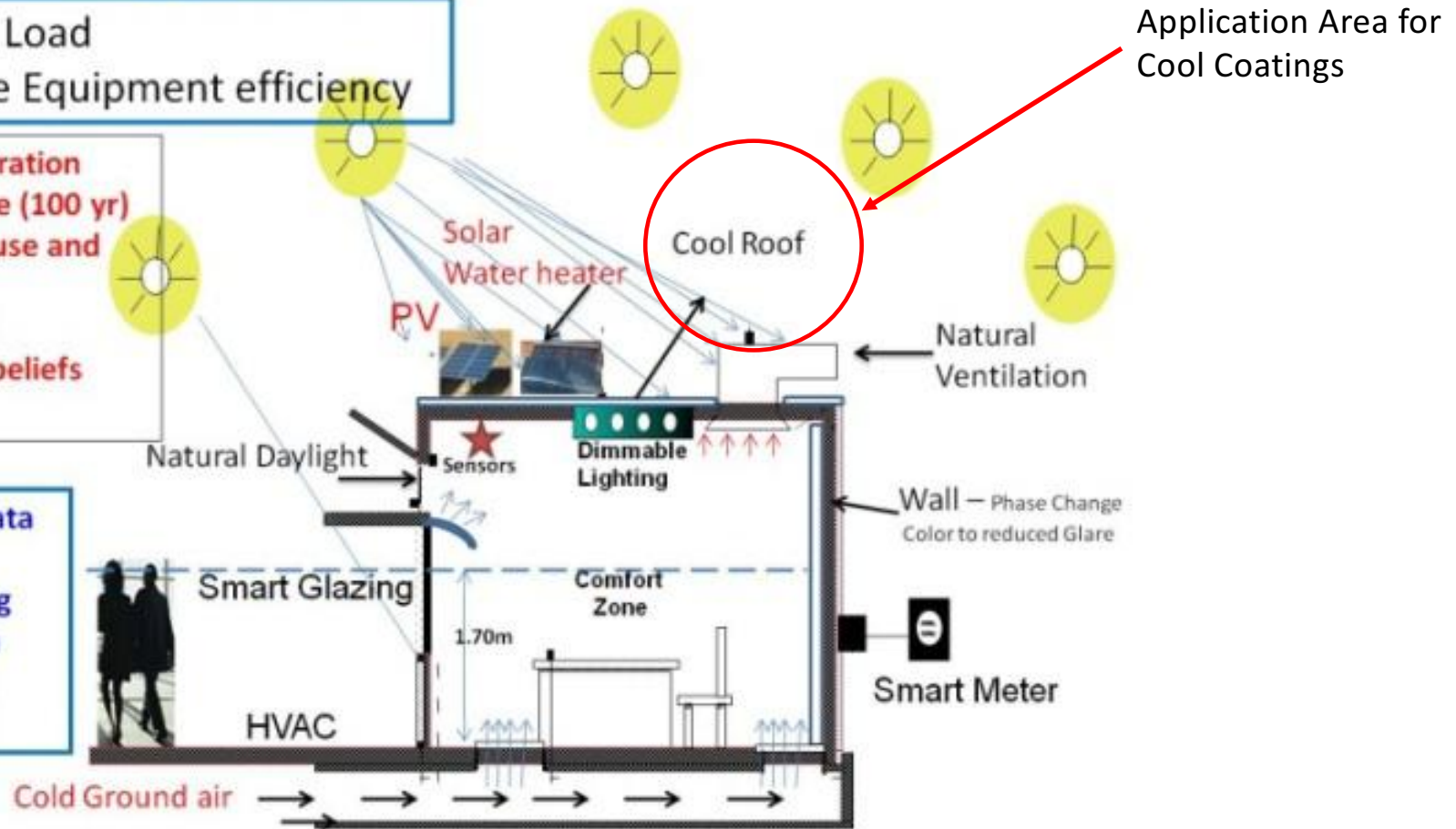
Pre-Fab Houses & Cool Coatings

ZEB Strategy

- 1) Reduce Load
- 2) Increase Equipment efficiency

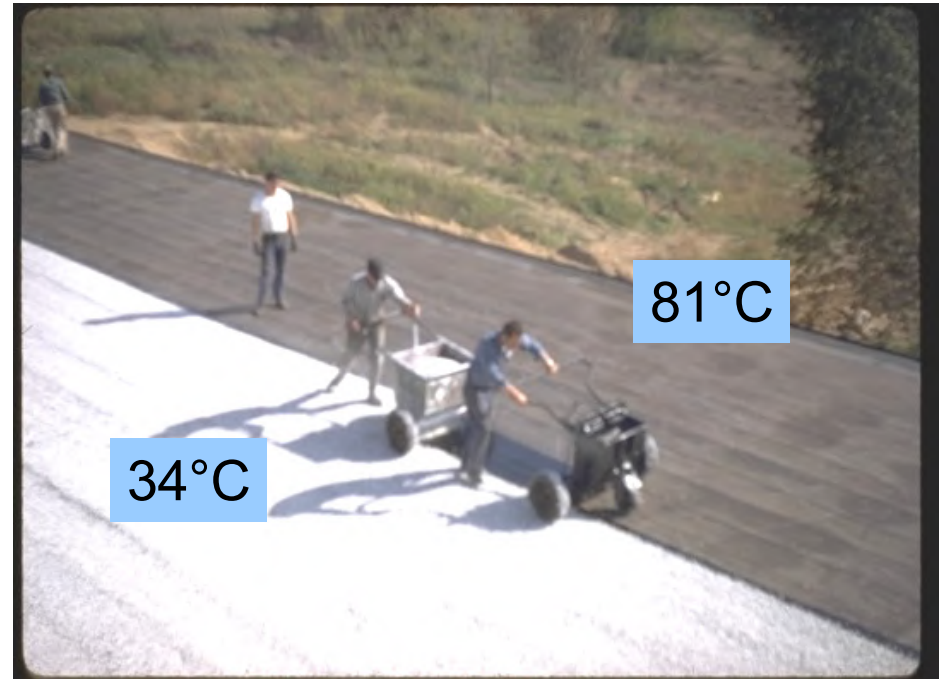
- Local consideration**
- Life of House (100 yr)
 - Equipment use and schedule
 - Local issues
 - Religious beliefs
 - Wild life

- Weather Data
- Site
- Surrounding
- Orientation
- Shadowing
- Vegetation

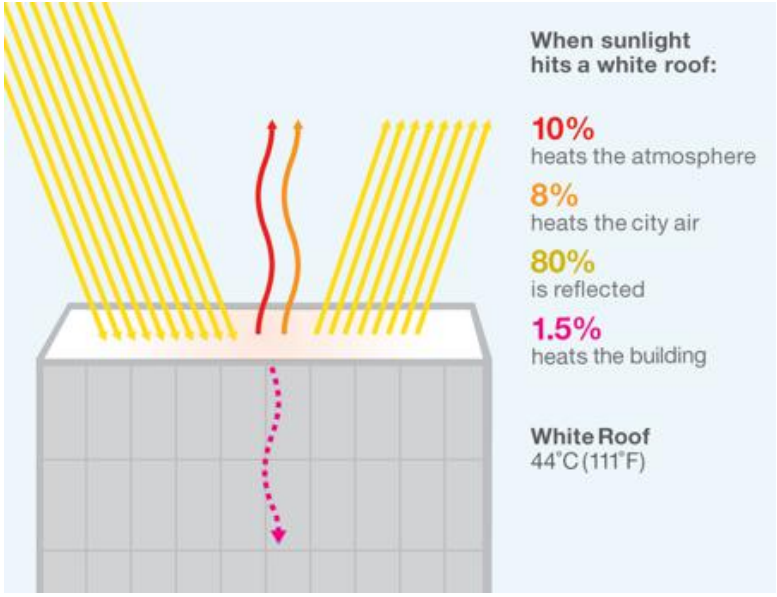
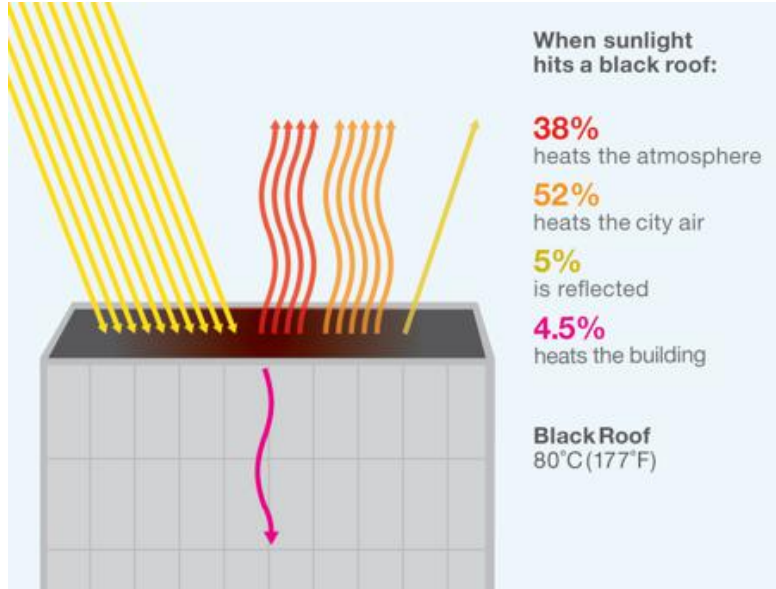


Advanced Envelope Technologies

- Highly Insulating & Dynamic Windows
 - Possible vacuum glazing
 - Passive heating
 - Dramatic peak cooling reduction
- High and Dynamic Insulation
 - Thermal mass effect in lightweight construction (phase change materials)
- **Reflective cool roofs and walls**
 - **Reflective near infrared pigments “cool colors”**
 - **White commercial roofs**
- Large array of under utilized products
 - Exterior insulation finishing systems
 - Air barriers
 - Window films
 - Automated shades
 - Solar shades and blinds
 - Radiant barrier
 - Insulations

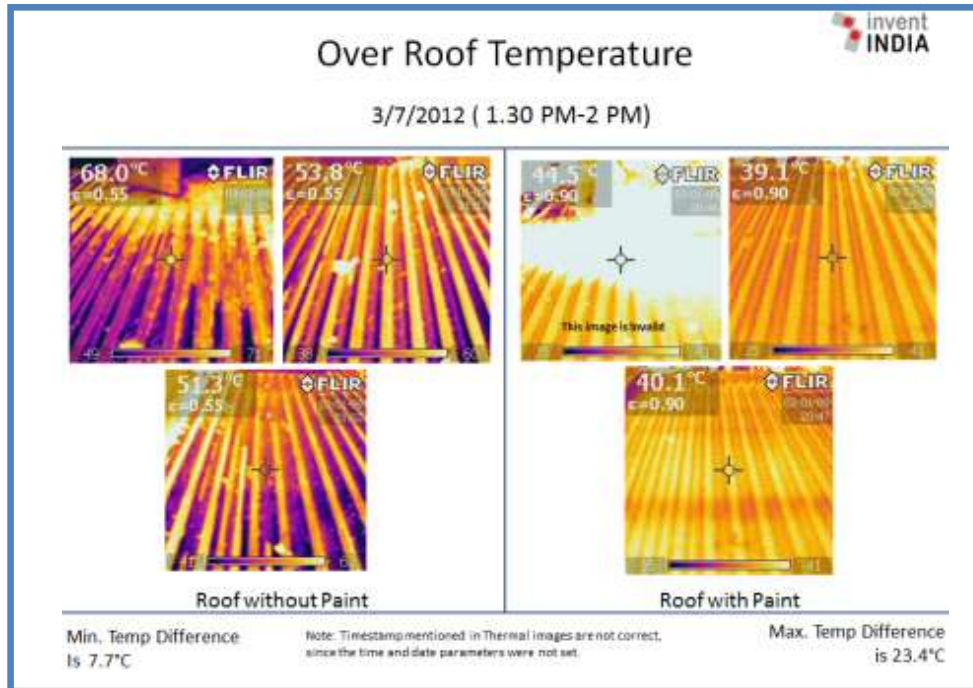


How Cool Roofs Work

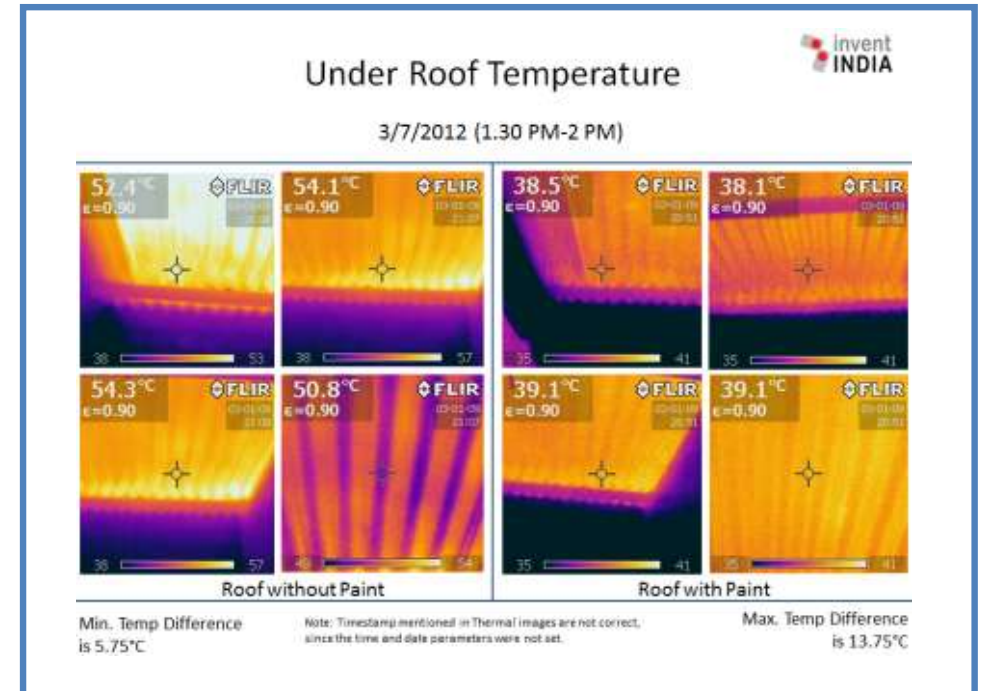


Cool surfaces are measured by how much light they reflect (Solar Reflectance) and how long they hold heat (Thermal Emittance).

Temperature Difference after Cool Coatings

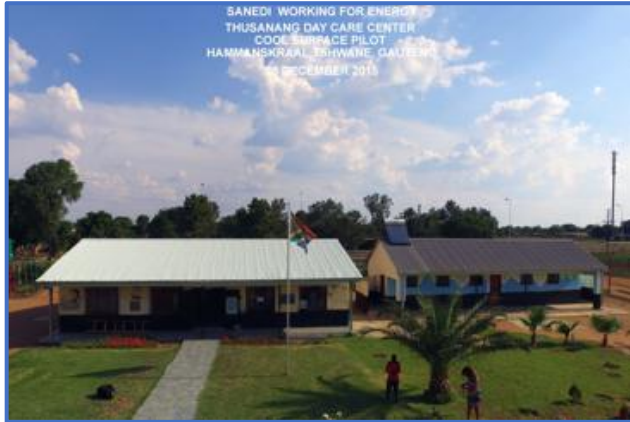


Outer Roof cooler by around 10 to 18 deg C



Inside Temp reduced by around 10 to 12 deg C

Projects -



Hammanskraal, Tshwane, Gauteng, Africa



Siddhivinayak Temple, Mumbai

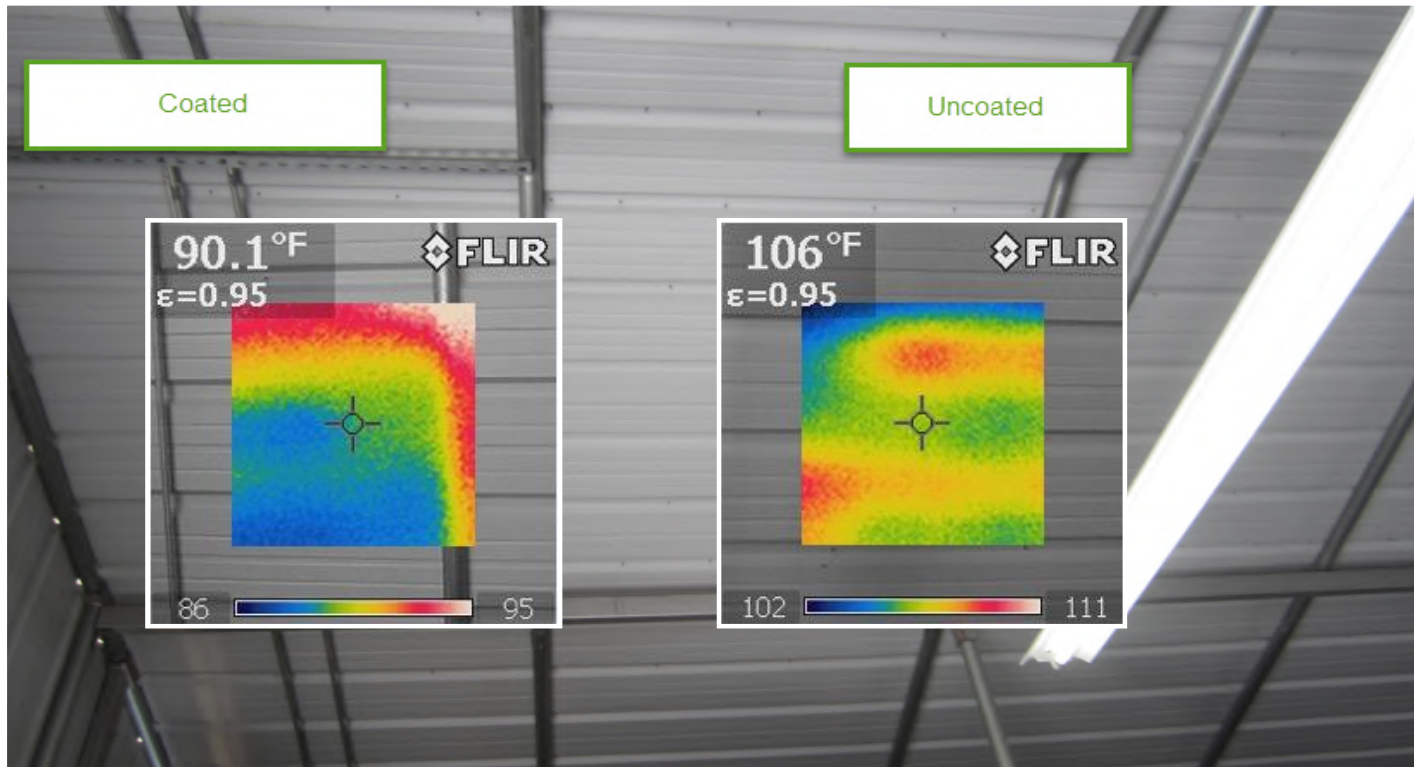


Emmanuel, South Africa



Kgomoco, South Africa

Northern California Project



**18% Reduction
in Temperature**

Temperature Measurement taken with FLIR 650 IR Camera

Products -

MS-Fireshield – Fire Resistant

MS-Fireshield is a high temperature waterborne intumescent fire-resistant barrier coating that will withstand direct flame contact for 2 hour fire protection. It does not emit continuous smoke with E84 testing yielding 5=flame spread and 20=smoke during flame exposure **MS-Fireshield** is **environmentally** friendly with low VOC and is used in demanding fire **shielding** applications such as protecting steel frameworks, building foam insulation, utility poles, cedar shake roofs, styrene and polyurethane foam board and other flammable material protection.

MS-ECOShield – Cool Coating

MS-ECOShield is a Multi Surface Coating made with a minimum of 50% post consumer materials. MS-ECOShield is an environmentally friendly, low VOC (less than 250g/L) Premium Latex Paint for both interior and exterior use. Because MS-ECOShield can be applied to multiple surfaces and meets United States federal performance specifications, it is an ideal paint for projects requiring **ECO**logically friendly **COOL color** paint. Help us protect the **Environment** and use **EnvirMS-ECOShield**

Approvals and Certifications



MS-Thermashield – Thermal Insulation

MS-Thermashield is a Multi Surface Coating made with a minimum of 50% post consumer materials, proprietary **ACV** Microspheres that act as an insulator and water repellent. MS-Thermashield is an environmentally friendly, low VOC (less than 250g/L) Premium Latex Paint for both interior and exterior use. Because MS-Thermashield can be applied to multiple surfaces and meets United States federal performance specifications, it is an ideal paint for projects requiring **ECO**logically friendly, Insulating **COOL color** paint. Help us protect the **Environment** and save money by using **MS-Thermashield**.

Thank You !!

Visit Us for Free Solar Offer and Savings Calculation
for your Premises – www.indiansolarhub.com



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