

Press release - FINAL

## **SANEDI's Mandela Day brings the cool back to school**

Heat stress affects millions of children at schools, impacts their health and learning development. The reality of climate change is that children will become increasingly vulnerable and at risk to anthropogenic heating. This can result in severe dehydration, heat exhaustion, cramps and heat stroke. As a result, the South African National Energy Development Institute (SANEDI) is taking the cool back to the school.

On Mandela Day, 18 July 2022 the South African National Energy Development Institute (SANEDI) will mark this year's theme by honouring the call to, "reduce suffering of others by doing what one can, with what one has, regardless of one's situation."

SANEDI will do this by doing what it does best - promoting energy efficiency. On Madiba's birthday thousands of people will dedicate their time to "Do what you can, with what you have, where you are," a theme that this year's campaign is closely aligned to climate change and food security. Climate Change is expected to do tremendous harm but the often overlooked aspect of this challenge is the increase in health risks associated with heat exposure –particularly children who need an environment conducive for learning.

An unfortunate consequence of this is a possible rise in demand for expensive cooling systems, resulting in an increase in demand for electricity.

As an organisation leading research, development and capacity building in the energy space, SANEDI is delighted to spend this special day providing cooling roof paint for the Far North Secondary School in Randburg, Gauteng. Staff and partners will spend the day at the school by painting the roofs using FSPS Cool Coating. The paint delivers higher solar reflectance and higher thermal emittance than standard designed roofing coats.

"This year SANEDI celebrates its 10th Anniversary of successful research and sustainable development of energy technology. Over the last decade SANEDI has delivered on projects that improve the lives of ordinary South Africans," said Project Officer Denise Lundall.

We have selected this cool coat paint initiative at the school for a lasting impact against heat exhaustion.

A cool coating immediately reduces temperatures on the roof surface by up to 40<sup>0</sup>, keeping the frequent heat expansion and cooling contraction to a minimum– allowing the roof to last longer. In addition, the structural integrity of the roof is strengthened while temperatures can be reduced by up to 8<sup>0</sup>C although it usually achieves a steady reduction of 3<sup>0</sup>C, as the paint reflects and

scatters heat away from the roof, reducing the absorption and penetration of solar radiation into the building.

“Studies show that excessive heat of non-air-conditioned buildings create lethargy, fatigue and disinterest in occupants. Learners lose concentration, focus and productivity. The thermal comfort of cooler classrooms allows for a more pleasant environment and greater retention of learning,” Lundall said.

SANEDI recognises the significance of how our mandate coincides with this year’s theme and is pleased to use this day to promote the future in energy efficient cooling solutions.

“The roof of any building bears the brunt of the elements. That’s why it needs all the protection it can get against diverse temperature differences which is a major cause of thermal shock,” said Zack Bezuidenhout who is the Inland Director at FSPS-Partners. The company is donating the paint to mark our mission and the occasion.

“The use of cool roof coatings with high solar reflecting properties is becoming more and more popular to reduce the need for air conditioning and to increase the lifespan of the roof,” said Bezuidenhout.

We are pleased to contribute to an often overlooked aspect of climate change like intense heat risks which will eventually interfere with the development of our future leaders in the education system. By introducing innovative solutions that will aid South Africa in adapting to the risks associated with climate change like extreme and prolonged heat waves –the country can build a future together that is resilient to climate risks by adapting through innovation.

In keeping with the Mandela Day theme of “Every little bit helps”, SANEDI would like to highlight how each surface area where specialised, reflective cool coating is applied, accumulates, and can cool the building, the street, the town, the city and eventually the planet, One roof at a time. The Cool Surfaces Project truly demonstrates and embodies this ideal.

**Ends.**

**About SANEDI:**

The South African National Energy Development Institute (SANEDI), established by the Government, directs, monitors, and conducts applied energy research to develop innovative, integrated solutions to catalyse growth and prosperity in the green economy. It drives scientific evidence-driven ventures that contribute to youth empowerment, gender equity, environmental sustainability, and the 4th Industrial Revolution, within the National Development Plan (NDP), through consultative, sustainable energy projects. For more information, go to [www.sanedi.org.za](http://www.sanedi.org.za).

**Issued on behalf of SANEDI by One Union:**

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