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REHAU Smartens Up Approach to Tackling Building Overheating

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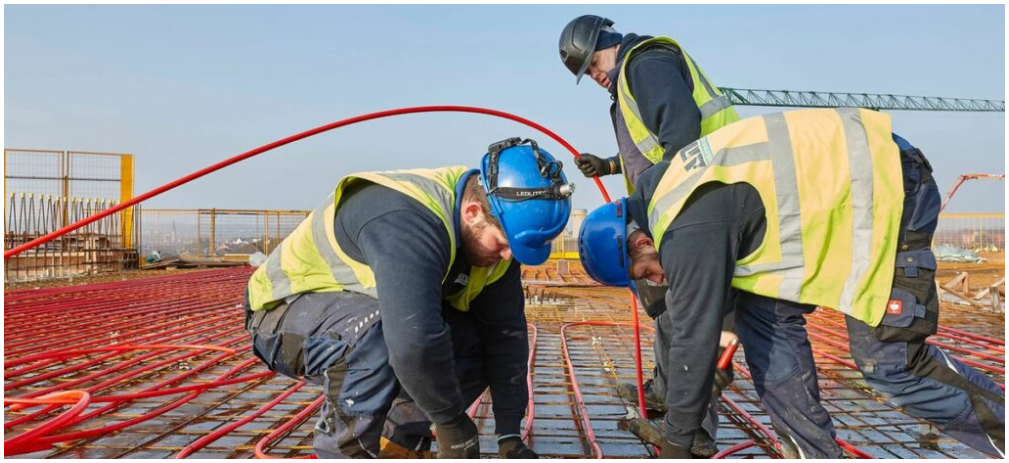

Building specifiers and contractors looking to tackle the increased risk of buildings overheating via Thermally Activated Building Structures (TABS) can now implement industry-leading smart technology for efficient heating and cooling.

Scientists are continually warning of unprecedented heatwaves as climate phenomenon El Niño is set to return for 20231. According to REHAU, this level of climate change is increasing interest in the benefits of TABS technology to improve the thermal modulation of the UK's building fabric.

In response, REHAU has updated its industry-leading smart room thermostat system, NEA SMART 2.0, to include a unique control algorithm specially designed for systems with high thermal mass such as TABS. When connected to the internet, the system can be operated via an app and data from weather services are accessed for predictive temperature control.

The new functionality makes it the only all-in-one radiant heating and cooling control system on the market that can control standard radiant heating and cooling systems in the floor or ceiling, as well as radiant systems with a high thermal mass such as TABS.

Franz Huelle, Technical Manager for Building Solutions at REHAU said: "Not long ago the Met Office documented that the number of 'extremely hot days' could increase fourfold from 10% to 37% if global temperatures rise by just 7.2°F. This is a worrying stat that helps inform why we have seen more building specifiers seeking out technologies to reduce the impact of overheating. Precise temperature monitoring is becoming more critical as we aim to balance the impact of climate change, alongside improving the performance and efficiency of buildings."

According to REHAU, the higher thermal mass of TABS can sometimes lead to overshooting of a room's temperature, particularly when starting the system or changing from reduced to normal operation. NEA SMART 2.0 takes the core and return temperatures into consideration to achieve an optimum control

behaviour for very slow reacting radiant systems.

“We aim to keep NEA Smart 2.0 at the cutting edge of technology, which is why our R&D team is always looking at adding in new functionalities with future buildings in mind. This is an important evolutionary step for the system as TABS technology grows in popularity, and cooling demand becomes more commonplace in traditionally temperate climates.”

For more information, CLICK HERE