ACDM October Newsletter

Cooling Paint could cut emissions from buildings

In a new study, this new product was found to be able to reflect roughly 95% of the sunlight and can reduce internal temperatures by up to 1.7 degrees Celsius. This reduction will help in reducing the amount people rely on air conditioning to keep buildings at a comfortable temperature. With a high proportion of most countries electric grids still making electricity from coal or gas then this leads to a reduction in carbon emissions as well.

The paint works by including high concentrations of calcium carbonate which has lots of particles which differ in size. Each different size of particle can reflect a different wavelength of sunlight and as sunlight has such a broad spectrum this variation in particle size was key.

https://www.bbc.co.uk/news/science-environment-54632523

UKs First Home Built by A Robot Brick Layer

Construction Automation was founded 4 years ago in 2016 and the founders have been hard at work to develop a brick laying robot that nearly completely independently built a house. The system still currently requires 2 workers, a labourer to load bricks and mortar into the machine and a skilled person to install tie bars, damp courses, lintels, and to do the pointing.

The Robot has recently been trialled out with factory conditions and has been constructing a 2 storey 3 bed single plot house in Everingham, Yorkshire. The project was expected to take roughly 2 weeks and take almost 10,000 bricks.

The robotic arm lies on a 9 meter high vertical frame which removes the need for scaffolding and the need for working at height. With the in built height the robot can easily reach the height of a standard two storey house. The company already has patents in the US and patents in the EU and UK are expected to follow soon.

https://www.constructionenquirer.com/2020/10/06/uks-first-home-built-by-robo-bricklayer/

Infrastructures Falling Short of net Zero Target

The carbon emissions emitted by the UK infrastructure sector have dropped by a quarter between 2010 and 2018. This drop albeit good is not at the level it needs to be in order for the sector to reach is emission goals. The current trend of 3% reduction a year needs to accelerate to 4.1% if the industry is to meet its goals by 2050. AS UK infrastructure accounted for 54% of UK carbon emissions according the a 2013 Government carbon review this reduction is likely the most important to meet for the UK as a whole to meet its targets.

https://news.ukconstructionweek.com/en/article/91111?utm_source=Mailjet-ukconstructionweek&utm_medium=newsletter&utm_campaign=ukconstructionweek-2611-s-en-091020

Digital Pioneers secure £250,000 funding for Construction Industry "Game Changer"

The company Bimsense, launched by founders Ian Yeo and Scott Pilgrim 4 years ago, has received a quarter of a million in funding to develop their BIM technology that they call Operance. Building information modelling is widely regarded as the best solution for meeting carbon targets as well as reducing construction budgets and timetables. The funding they have received will allow the software to be more widely accessible to others in construction through its innovative software.

https://buildingproducts.co.uk/digital-pioneers-secure-250000-funding-construction-industry-game-changer/

Amey Puts Weight Behind Recycled Paint

Amey has entered into a new partnership with the social enterprise Paint360 who are recycling paint into new products. Each litre of their paint contains a minimum of 65% recycled content whilst still able to compete with premium brands of paint. It collects waste paint from waste management companies, councils and contractors and recycles it.

Amey estimates that the paint provided by Paint360 will help save 26 tonnes of CO_2 in the 14 prisons where the CRED programme operates, with further plans to roll this out to 19 prisons maintained by Amey once CRED is active in those.

https://www.theconstructionindex.co.uk/news/view/amey-puts-weight-behind-recylced-paint

Costain explores Hydrogen transport through gas Network

Costain has produced a feasibility study that will contribute to ongoing assessments of the ability to use the existing UK gas distribution network to transport hydrogen. The project is the first to bring together all the gas distribution networks, working collaboratively.

The study is funded uner the Network Innovation Allowance (NIA), which is available for gas and electricity network operators to fund innovative projects which have the potential to deliver benefits to network customers. The objective is to provide evidence as to the technical and commercial feasibility of using deblending to support the transition of the UK National Transmission System and Gas Distribution Networks to a 100% hydrogen gas network.

Blending hydrogen into the existing natural gas pipeline network to relatively low concentrations (less than 20% hydrogen) has already been proposed as a means of transporting hydrogen without significantly increasing the risks associated with utilisation of the gas blend in end-use devices (such as household appliances), overall public safety, or the durability and integrity of the existing natural gas pipeline network.

Costain said deblending could provide a means to transition from a 20% to a 100% hydrogen network, providing customers with the options for either pure hydrogen, hydrogen/natural gas blends or natural gas.

https://news.ukconstructionweek.com/en/article/91652?utm_source=Mailjet-ukconstructionweek&utm_medium=newsletter&utm_campaign=ukconstructionweek-2683-s-en-221020