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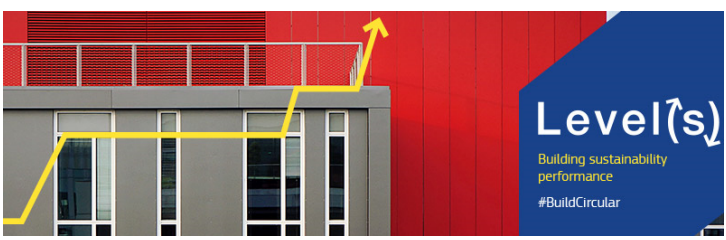
WHAT'S NEW

Composite polymers - the key to a sustainable construction sector

In 2020, the environmental agenda is a global priority. Governments and companies are striving to meet public demands to shift to environmentally-friendly lifestyles.

Industries, like the construction sector, in order to rise to expectations, are developing technologically advanced products that have high performance, long product life and are versatile.

Companies are investing in tried and trusted epoxy resins to develop increasingly sustainable products, such as reinforced epoxy rebars like the LITESTONE™ rebar which has exceptional corrosion resistance and strength that can withstand extreme conditions like mechanical stress and weathering. The lifespan of an epoxy reinforced rebar is 100 years in comparison to the industry average of 50 years for metal reinforcement bars.



Buildings are the largest single consumers of energy in the EU, prompting the European Commission in 2018, as part of its clean energy legislative proposals, to create a path to decarbonise buildings by 2050.

The rebar also provides thermal insulation, this reduces the movement of heat and vapour condensation within the concrete, reducing deformation, humidity and mould. Around 50% of buildings' heat loss takes place through the exterior walls. Thermal insulation reduces this loss of heat and when applied properly throughout the building, can lower energy expenses by around 50%.

Read the full article on Epoxy Europe, or check it out in the follow publications: Tunnels & Infrastructures (EN), Obras Urbanas (ES).

DID YOU KNOW?

Switch to safe and sustainable decorating

Did you know that many LED light bulbs are made of epoxy? **Because of epoxy's durability, they are less likely to break than incandescent bulbs** and if they do, are less prone to breaking into sharp pieces.

Not only are LED lights safer, they also save a lot more energy. **LEDs use between 70 - 90% less energy.** Switch to a more sustainable option with epoxy and LEDs when you are in a decorating mood and want to bring some *hygge* into your home with fairy lights!

STAY IN THE LOOP

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EPOXIES AT WORK

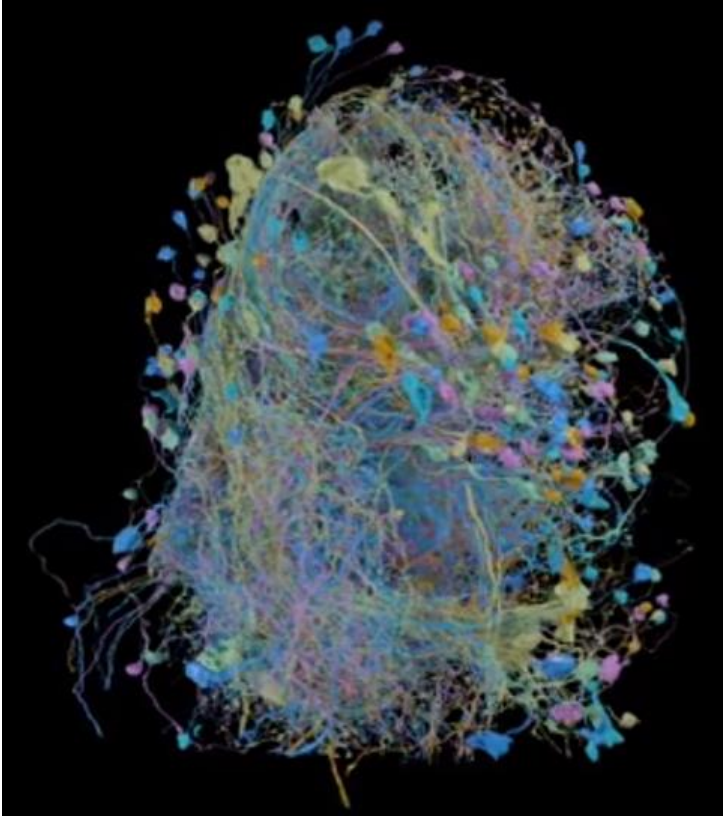
Security robots to patrol car parks in 2020

Today, there are robots to do everything, from making your bed to grilling sausage. In 2020, a new robot will be hitting the tarmac: SR1, a new security robot by Thai company Obadroid. The robot's AI features detects objects that are left behind in the car park and can remember other potentially important details like human faces and license plates.

SR1's shell is made from epoxy composite laminate and glass fibre. This ensures that the cladding is made from a lightweight and cost-effective material. Epoxy resins are also used to laminate the robot's stitched multiaxial reinforcements and are then cured under vacuum bag consolidation.

Read more about the SR1, our latest application of the month here.

The most complete map of the fruit fly brain [ever] in 3D



The most complete map of the fruit fly brain ever created was revealed in January. Janelia Research Campus in the USA, teamed up with Google to create the fractal 3D brain diagram.

At the start of the mapping process the fly's central nervous system was micro-dissected and embedded in an epoxy resin which could then be sliced into extremely thin pieces.

Microscopes were then set to run continuously, capturing data of the intricate brain connections.

This process that would have previously taken 250 people working for two decades, has sped up now thanks to deep-learning algorithms, imaging technology and a team of neural proofreaders and data analysts...and of course, epoxy.

Read more about the mapping of the brain in *Popular Mechanics*.

THE CRAFTY CORNER

Renovate your kitchen floor with thousands of cents

If you're thinking of putting in a new kitchen or bathroom floor and are looking for something a bit different from regular tiles or vinyl flooring, then this is the floor for you.

You can alter your budget by choosing which type of coins to use. The choice is yours - splash out on silver, or keep it budget-friendly with the warm tones of copper.

Once the coins are covered with grout, the floor is finished off with a layer of epoxy resin. The final layer is key for preventing the floor from discolouring in the sunlight.

Find out how to lay your own floor here.

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Epoxy Resin Committee
PlasticsEurope office. B40 Building
Rue Belliard 40 (9th floor)
1040 Brussels