tures," and ACI 440.11 "Code Requirements for Structural Concrete Reinforced with Glass Fiber-Reinforced Polymer (GFRP) Bars."

The 2023 version includes dozens of newly published documents ranging from codes on fiber-reinforced polymer to guides for concrete rehabilitation, shotcrete, and much more. Additional categories in the ACI Collection include concrete materials, properties, design, construction, reinforcement, specialized application, repair, structural analysis, and innovation, plus popular topics such as slabs, formwork, and masonry.

For details, visit concrete.org/store.

INTERESTED IN SEEING YOUR NEWS IN THIS COLUMN?

Email your 150-200 word association news to editor@icri.org. Content for the July/August 2023 issue is due by June 1, 2023, and content for the September/October 2023 issue is due by August 1, 2023. ICRI reserves the right to edit all submissions.

PRODUCTINNOVATION

GLOBAL INVENTORY OVER 3D PRINTED BUILDINGS SHOWS COBOD'S LEADING POSITION

- New research shows that by end of 2022, there were 129 3D printed buildings globally found on 105 building sites.
- Geographically, around 30% of 3D printed buildings are located in North America, however all regions are well represented.
- COBOD's 3D construction printers have printed almost 40% of projects globally, equivalent to 51 buildings. These printers have also been present at 40% of the construction sites where 3D printed buildings have been constructed.
- In 2022, 54 new buildings were added to the list, showing the exponential growth of the industry.
- COBOD printers made 30 of these 2022-buildings, almost equivalent to 60% of new buildings made globally.

Of all the applications for 3D printing, 3D construction industry is perhaps the most hyped. For the first time, certain data may now shed light on the activity.

According to a recent study by COBOD International A/S, there are already 129 3D printed buildings spread over 105 distinct construction sites globally. While these numbers might appear surprisingly low given the attention the industry has been getting, it is of little surprise that COBOD's 3D construction printers are behind 40% of all activities.

Focusing on 2022, when 54 new 3D-printed structures were constructed, makes the dominance of COBOD in the sector even more obvious.

For the ful report visit www.cobod.com/global-inventory-3d-printed-buildings/

CAN MCI® FIGHT MICROBIAL INDUCED CORROSION IN CONCRETE?

Three of the main causes of corrosion in reinforced concrete are chlorides, carbonation, and sulfates. While Migrating Corrosion Inhibitors have been known to protect against the first two, more research needs to be done on the power of MCI® against sulfates. However, two recent research projects are already suggesting exciting possibilities for the use of MCI® in sulfate rich environments.

An independent study published in 2018 by several researchers from the King Fahd University of Petroleum & Minerals in Saudi Arabia helps answer the first concern. The study looked at five concrete corrosion inhibitors, including one "based on amine carboxylate" (as are most MCI® admixtures). The inhibitors were tested in a chloride rich environment with sulfate added at 500 and 2000 ppm.

Cortec's MCI® amine carboxylate admixtures typically offer many advantages over CNI, such as biobased content (e.g., MCI®-2005 is a USDA Certified Biobased Product), certification to meet NSF Standard 61 for drinking water system components, protection against carbonation corrosion, and no acceleration of set time.

Although further research must be done, another whitepaper forthcoming in 2023 also suggests exciting possibilities for the use of MCI® in high-sulfate environments like those with MIC problems. In particular, the chemistries used in MCI®-2005 and MCI®-2018 demonstrated a degree of protection against the deterioration of the concrete itself, not simply protection against rebar corrosion in the presence of sulfates.

Contact Cortec® for additional data and consultation: www.cortecmci.com/contact-us/

IS YOUR COATING A GOOD MATCH FOR CORROSIVE CHEMICALS?

The right coating can mean the difference between a concrete floor that lasts for decades and one that starts to disintegrate and corrode shortly after a chemical spill. It is therefore critical to ask if the coating you are considering has what it takes to resist the substances to which it will be exposed. Our "MCI®-2026 Floor Coating Chemical Resistance Guide" makes that easy when looking at the Cortec® option.

MCI®-2026 is a 100% solids, 2-component novolac epoxy coating designed for areas that need high chemical or abrasion resistance. It can be used on concrete floors, on concrete counters, and even on metal tanks (when used with MCI®-2026 Concrete Primer WB). Possible applications include chemical processing plants, manufacturing plants, or just about any industrial facility that gets heavy traffic or is at risk for chemical spills.

Anyone interested in using MCI®-2026 can check the "MCI®-2026 Floor Coating Chemical Resistance Guide" to see if MCI®-2026 is a good match for the substances it is likely to encounter in their facility.

With almost all 100+ chemicals on the list falling in the range of fair to excellent resistance (most in the excellent category), this guide reflects the tough makeup of MCI®-2026 for chemical processors or other manufacturers. For those considering using MCI®-2026 in commercial food processing facilities, the list even includes resistance ratings for several food substances such as mayonnaise, milk, mustard, peanut butter, and vinegar that could easily fall on the floor!

For more information visit https://www.cortecmci.com/product/mci-2026-floor-coating/