PROJECT PROFILE

ARTICULATED CONCRETE MATTRESS CASTING

SCOPE OF PROJECT
Metal forms were used to cast concrete blocks approximately 3 feet by 4 feet by 4 inches thick, utilizing Euclid Chemical concrete admixtures and macro synthetic fibers. The concrete blocks were tied together with a stainless steel wire, picked up by a crane and loaded on barges for transport to a bank along the Mississippi River for stabilization.

PRODUCTS FEATURED

- **EUCON WR 91**
  Water Reducing, Set Retarding Admixture

- **EUCON AEA-92S**
  Air Entraining Agent for Concrete

- **Tuf-Strand MaxTen**
  Macro Synthetic Fiber, Polypropylene/Polyethylene Copolymer

- **Kurez VOX White Pigmented**
  White pigmented, Water-Based Curing Compound

- **Concrete Blaster**
  High Performance Equipment Cleaner

PROJECT DATA

- **Location** – Richardson Landing Drummonds, TN
- **General Contractor** – Mississippi Limestone
- **Concrete Producer** – Mississippi Limestone
- **Total Area** – 59,000 yd³ of concrete

PROJECT SUMMARY
The Richardson Landing mat casting field is used to produce articulated concrete mats that are tied together to form articulated concrete revetment “blankets” that are then placed on riverbanks to serve as erosion control. In the past, corners of some of these concrete mats were becoming damaged as they were moved from the casting field to the construction site. To combat this issue, it was decided to incorporate Tuf-Strand MaxTen synthetic fibers into the concrete mixture. Additionally, Euclid Chemical water reducing and air entraining admixtures were chosen after Euclid Chemical’s laboratories conducted extensive testing and mix design optimization for the concrete supplier.