



EUCLID CHEMICAL

PROJECT PROFILE

US52 INDOT FIBER REINFORCED CONCRETE PAVEMENT



PROJECT DATA

Location – Fowler, IN

Application – Fiber Reinforced Concrete Pavement

Architect/Engineer – Indiana DOT

General Contractor – Superior Construction

Concrete Producer – Irving Materials, Inc. (IMI)

Total Distance – 15 lane miles (24 km)

PRODUCTS FEATURED

TUF-STRAND™ SF

Macro-Synthetic Fiber

SCOPE OF PROJECT

Overlay of US52 using fiber reinforced concrete to improve durability and longevity



PROJECT SUMMARY

The Indiana Department of Transportation (INDOT) is continuing its work with thin concrete overlays using fiber reinforcement for highway rehabilitation. Constructed in 2018, the section of US52 outside of Fowler, Indiana, was rehabilitated with a 4 to 4.5" (100 – 115 mm) concrete overlay using a 4 lb/yd³ (2.4 kg/m³) dosage of Euclid Chemical's TUF-STRAND SF macro-synthetic fiber. This 4-lane highway was previously surfaced in asphalt and had reached a deteriorated state that required a long term solution and improved ride quality. Irving Materials, Inc. (IMI) serviced this project by utilizing a twin-shaft portable mixer placed at their local dry batch plant location. This combination of mixers allowed for the production of up to 100 yd³ (75 m³) per hour with Superior Construction placing between 500 – 900 yd³ (380 – 690 m³) per day. In total, over 18,500 yd³ (14,000 m³) of FRC pavement was placed without the use of any dowels or reinforcing steel showcasing a major market potential for future FRC and pavement projects.