



**EUCLID CHEMICAL**

## PROJECT PROFILE

# TESLA GIGAFACTORY 5



*Photos courtesy of cleantechnica.com*



*Photo courtesy of tesla.com*

## PROJECT DATA

**Location** – Austin, TX

**Application** – Fiber Reinforced Concrete

**Engineer** – SSOE

**Contractor** – Austin Commercial, Capitol, Keystone, TAS, Tesla Performance

**Ready-Mix Supplier** – Martin Marietta

**Total Area** – 8,000,000 ft<sup>2</sup> (750,000 m<sup>2</sup>)

## PRODUCTS FEATURED

**TUF-STRAND™ SF**

Macro Synthetic Fiber

## SCOPE OF PROJECT

Large floor slab for automotive factory with fiber reinforced concrete slabs over geo-pier stabilized base



**2022 INNOVATIVE FIBER  
PROJECT OF THE YEAR  
(MACROFIBER CATEGORY)**

## PROJECT SUMMARY

Construction on Tesla's automotive manufacturing facility in Austin, TX, known as Gigafactory 5, began in July 2020 and at the time, was the second largest factory in the US by size. Following other successful automotive projects that utilized fiber reinforcement, the engineer of record for the project recommended the use of Euclid Chemical's TUF-STRAND SF macrofiber to reinforce the slab and be used in replacement of conventional steel reinforcement. Using Euclid Chemical's TUF-STRAND SF Slab on Ground Software package and analyzing loads, soil and concrete properties, a dosage of 4 lbs/yd<sup>3</sup> (2.4 kg/m<sup>3</sup>) was used over the entire 8 million ft<sup>2</sup> (750,000 m<sup>2</sup>) project.

Over 200,000 yd<sup>3</sup> (150,000 m<sup>3</sup>) of concrete was required for the floor slab with a goal of providing a durable, crack resistant and cost effective slab for years to come. Gigafactory 5 is the production plant for the Tesla Cybertruck, the Tesla Semi, and produces Model Y cars for the Eastern United States. It also serves as the site of Tesla's corporate headquarters.