

Samvardhana Motherson Peguform (SMP) is part of the Motherson Group, one of the 22 largest automotive suppliers worldwide. SMP manufactures high-quality interior and exterior modules for the automotive industry. In 2018, SMP inaugurated its new 7,500,000 ft<sup>2</sup> auto parts plant in Tuscaloosa, Alabama. The plant's focus is on the production of door panels, bumpers, claddings, roof spoilers and running boards for the nearby assembly plant of Mercedes-Benz U.S. International. Dramix<sup>®</sup> steel fibers were used to reinforce the concrete floor of the facility.

### The challenge

The heavy demands that would be put on the floor of the manufacturing facility meant that the initial design incorporated a significant amount of rebar and a rather thick slab on ground. The Bekaert team, working closely with the designer and the general contractor, was able to review the plans, analyze the potential loads in the different parts of the building, and optimize the floor thickness.

## The solution

By converting the concrete floor from traditional rebar-based reinforcement to steel-fiber reinforced concrete, the Bekaert team was able to remove two layers of rebar. Moreover, through the use of Dramix<sup>®</sup> 3D, the depth of concrete could also be reduced. Both these improvements led to significant cost savings.

# SMP AUTOMOTIVE

TUSCALOOSA, ALABAMA, USA

### **PROJECT SPECIFICATIONS**

Project type: Industrial manufacturing center

Application: Saw-cut floor

#### PARTNERS

- General contractor: Evans General Contractor
- Designer: Professional Engineering Associates

