

## **Fiber Reinforced Concrete**

The technology, Fiber Reinforced Concrete, is a fiber and process of mixing the fiber to create fiber reinforced concrete or FRC. FRC is predominantly used to strengthen a ready mix concrete and can be used to provide increased structural strength in new construction applications or for concrete repairs.

The primary use of FRC is in repair applications. Typical concrete structures are designed to last about 50 years but many do not last that long due to a number of factors. In the United States alone, there are about 9 billion cubic yards of concrete in place, the majority dating over 20 years old. Because of this, concrete repair is in high demand and requires \$18-22 billion USD in repair materials and services annually.

### **Salient features**

- Controls plastic shrinkage cracking and drying shrinkage cracking
- The fibers produce greater impact, abrasion and shatter resistance in concrete
- Allows taking extra load from the structure and sudden failure/collapse is arrested

### **Areas of application**

- Construction and repair applications

### **End users**

- Construction industry for strengthening and repairing works
- Builders and civil contractors