# The use of concrete fiber for construction

By **Constro Facilitator** - December 6, 2019

Concrete Fibers are increasingly being recognized as a favorable substitute for unsustainable inputs. Aside from technical and cost advantages, such products have the added attraction of meeting growing consumer awareness concerning environmental, sustainability and social standards contributing to. The modern concrete is redefining the construction industry. Research is increasingly demonstrating the technical and economic benefits of including natural components in industrial products. Therefore, competitive products based on natural fibres are being developed that show excellent technical performance and harm the environment less than current products. One such product is Fibercrete Concrete Fibers.

**Fibrecrete Concrete Fibers – from the house of Kalyani polymers**

FIBERCRETE is the latest innovation in polymer extrusion products developed by KALYANI POLYMERS PVT LTD, based in the south of Bangalore engaged in the manufacture of niche polymer products which have been exporting replacements for the Indian market. The company has always maintained the highest quality standards, in terms of Products, Service, and Delivery.

Being a MSME, they have incentives from the Govt and Industry for Research and Development in the Field of Polypropylene and other Plastics. With the foray into Fibercrete and Leno Bags for packing Agricultural Produce and next project being towards Power Cables Accessories they are all set to face the next decade with new offerings and products.

FIBERCRETE is a fibrillated polypropylene micro-fiber for concrete reinforcement that complies with ASTM C 1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and is specifically designed to help mitigate the formation of shrinkage cracking in concrete. Typically used at a dosage rate of 0.9 kg/m3, FIBERCRETE fibers have been shown to greatly reduce shrinkage cracking by as much as 88% when compared to plain concrete.

**FEATURES/BENEFITS**

- Controls and mitigates plastic shrinkage cracking
- Reduces segregation and bleed-water
- Provides three-dimensional reinforcement against micro-cracking
- Increases surface durability
- Reduction of in-place cost versus wire mesh for temperature/shrinkage crack control
- Easily added to concrete mixture at any time before mixing

**This Product is Approved by**

**A.** Indian Institute of Technology Madras, Chennai.

**B.** Stedrant, Technoclinic Pvt. Ltd. (NABL Accredited Laboratory), Bangalore.

**The market for Fibercrete**

FIBERCRETE FF and FIBERCRETE MF are the latest launches of the product in 2017 and have been welcomed unanimously by the Construction, Engineering and Infra Sectors adding value to the Concrete by mitigating its Weakness like water bleed, shrinkage, etc and empowering the modern-day concrete enhancing the versatility of its usage.

**PRIMARY APPLICATION AREA**

- Floor for industrial, commercial and residential concrete projects
- Footings, foundations, walls and tank applications
- Concrete pipe, vault structures and precast / prestressed beams, PQC Roads, Parking Area, Pavers,
- Tunnels, Canals & All kinds of Plastering Application.

With an export market of 40 %, and majorly exporting to European and Middle East Countries, and their trade Partners in London, the Middle East and Korea, they are ever-expanding their customer base to every part of the world.

**A Detailed research of Fibercrete Concrete Fibers**

With an in house team of R & D professionals from CIPET and experience in the line of plastics for more than 30 years, the team at Kalyani Polymers strives to achieve greater milestones each day in terms of innovation, product development and service.

- They have customized Concrete Fibers products and services to every client, and design and cater to their needs after a thorough investigation of the requirements and necessities of the industry as such or the Customer.
- Accredited with ISO 9001-2008 since 2001 and with RoHs products, they are on the way for an ISO 14000 Certification of Environmental Norms, Accredited as an A-Grade Company from Dun and Bradstreet.
- The company is aptly situated in Bangalore on the Southside, on Kanakapura Road which is well connected to all major parts and other metro cities. They operate out of 3 units covering a complete area of 25,000 Sq. meters.
- The strategic location of their manufacturing unit makes it easy to be connected to the varied modes of transportation such as land, rail or air. This ensures the team in meeting the requirements of their clients in the best possible manner within a stipulated time frame.
- The company operates 24 hours a day in 3 shifts across all units which is seamlessly integrated via ERP systems for smooth SCM & Production planning. Backed by a sophisticated production unit and leveraging on the core competency of a team of professionals, they can produce more than 400 metric tons of Polypropylene fibrillated yarn, Tapes, Fibers and more.

**Conclusion**

The company’s ability to continuously expand its product range and apply new techniques to present systems by installing new machines for efficient manufacturing is aided by the ample space to innovate and commercialize new products. Over the years in the industry, they have earned accolades from their clients for offering a range of customized products to meet the requirements of their clients from different sectors.

**For Further Details**

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