

# FIBERTECH MAC 54

Macro Synthetic Fiber For Concrete



## DESCRIPTION

FIBERTECH MAC 54 is the macro reinforcement systems that provide the most effective control against the structural cracks formed under shrinkage and under load in ready mixed concrete and shotcrete applications, plaster and screed applications.

## USAGE AREA

- Industrial field concretes
- In screed concrete
- High specificity traverse concretes
- In runway and port concrete
- All precast elements
- In all shotcrete applications
- Tunnel lining

## PROPERTIES

- It provides up to 40% time advantage by eliminating steel mesh workmanship with easy and fast application.
- It provides effective crack control at every point by distributing homogeneous in the concrete.
- It provides toughness in concrete with its high energy absorption capacity.
- It does not corrode and rust. It provides long-term durability in concrete.
- Prevents 99% plastic and long-term drying shrinkage cracks in concrete.
- Increases the adherence of shotcrete and minimizes back tabs and provides efficient application.
- It is compatible with every class and every slump concrete.
- It is resistant to salt, alkali and acid effects.

## STANDARDS

- FIBERTECH MAC 54: EN 14889-2 Class II ASTM C 1116

## ADVANTAGES IN HARDENED CONCRETE

- The resistance against impacts increases.
- Water resistance and durability properties increase.
- Since the cracks are disposed of, channels where water can pass cannot be formed.
- Mechanical strengths are high thanks to low segregation and high homogeneity.
- The energy absorption ability and compactness of concrete increases.
- Concrete's resistance to fire increases.
- Increases resistance to breaks in concrete corners and edges.
- Reduces the rust rate of metal carrier reinforcement.
- Resistance to freeze-thaw event is provided.

## USAGE AND QUANTITY

FIBERTECH MAC 54 is gradually added to the mixture in the concrete mixer or mixer in the concrete plant and added slowly.

The mixture should be made as follows;

- Aggregate, water and cement are mixed.
- While mixing, FIBERTECH MAC 54 is added and min. 7 - max. Stir for 10 minutes.
- In order to use the mixture easily, it is recommended to use a super plasticizer concrete additive instead of adding more water. (Adding FIBERTECH MAC 54 does not change the concrete mixture and admixture rates.)

It is recommended to use the FIBERTECH MAC 54 in the ratio of 2 - 10 kg per m<sup>3</sup>. This ratio varies according to the components used in the concrete mixture design. For this reason, before the usage rate is determined, laboratory trials should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these experiments.

## TECHNICAL SPECIFICATIONS

Raw material= Polypropylene

Density =0.91 g / cm<sup>3</sup>

Length= 54 mm

Tensile Strength= ~ 550 N / mm<sup>2</sup> (Mpa)

Melting Point =160 C

## STORAGE CONDITIONS AND PACKING

The product should be stored above 5 0C in its original packaging.

Shelf life is indefinite when stored in dry, protected and ventilated environments, protected from sun, rain and frost.

It is offered for sale in packages of 600 gr, 900 gr, soluble in water.

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