WHAT ARE THE DIFFERENCES BETWEEN

MICRO & MACRO

SYNTHETIC FIBERS?

Microsynthetic fibers are the original generation of synthetic fiber and are comprised of polypropylene monofilament and fibrillated fibers and nylon monofilament fibers. Whereas, macrosynthetic fibers are the new generation of synthetic fibers. Currently. all of the macrosynthetic fibers being marketed are classified as polyolefins. Polyolefin is an umbrella term that includes a number of 'polys' such as polypropylene and polyethylene.

PURPOSE

MICRO

Reduce surface cracking while concrete is still wet, increase concrete toughness, replace light steel reinforcement.

MACRO

Replace steel shrinkage and temperature reinforcement, increase concrete toughness, reduce cracking, reduce crack widths, provide flexural and tensile strength across cracks.

DOSAGE

MICRO

0.5 - 3 lbs. pcy
Standard dosage rate

MACRO

3 - 11 lbs. pcy
Standard dosage rate

DIAMETER

MICRO

Less than 580 denier (0.012 in)
Less than 0.30 mm

MACRO

580 denier (0.012 in) or greater
0.30 mm or greater

APPROVALS

MICRO

ASTM C1116, Section 4.1.3 & Note 2
ATSM D7508
ICC ES AC32
ICC ESR-1699
ASTM D7508

MACRO

ASTM C1116, Section 4.1.3 & Note 2
ASTM D7508
ANSI/SDI C-2011 (alternative to WWR)

APPLICATIONS

MICRO

Slabs and concrete elements where surface appearance is important and evaporation rate is high, where additional toughness is needed, to replace WWR 6x6-W1.4xW1.4 in slabs

MACRO

Slabs-On-Ground Composite
Steel Floor Decks
Concrete Pavements
Precast Concrete
Shotcrete
Bridge Decks

PRODUCTS

MICRO

FiberForce 100
FiberForce 150
FiberForce 300
FiberForce 500

MACRO

FiberForce 650
FiberForce 1000 HP
Macro Pro
Performance Plus DOT

FiberForce is a fully integrated leading manufacturer of microsynthetic and macrosynthetic concrete fibers for the ready-mix industry. FiberForce offers more than 18 concrete fiber products so engineers and contractors are able to select the optimum fiber reinforcement for the your next concrete project.

FiberForce Synthetic Fibers are the Value Engineering Answer for Your Next Project!