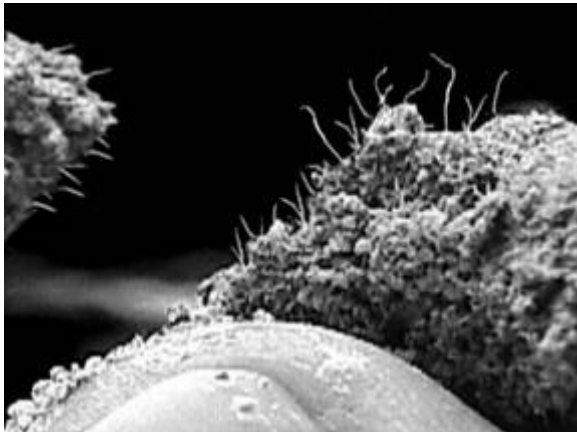


# **Multiform Systems - UltraFiber™**

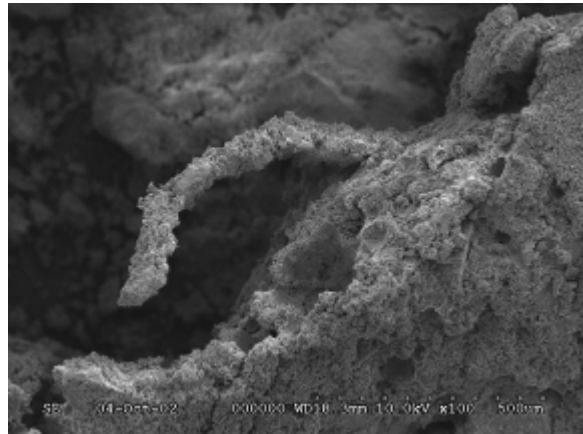
## **500**

Premium Concrete Reinforcing Fibre

## **Controls Cracking, Conditions and Improves Concrete Quality**



Look how close the fibres are in the concrete



Cement particles bonding to UltraFiber500

**Professionals use and recommend UltraFiber500 because it's:**

- **Always invisible on the surface**
- **Affordable with over 1 billion fibres /m3**
- **Has 20x more fibre & 28x more surface area than other fibres**
- **Always mixes perfectly**
- **Exceptionally strong**
- **Alternative to most steel mesh**
- **Holds moisture inside and will internally cure concrete**
- **Used on exposed, coloured & even polished finishes**

**There are no hassles, no extra water added, no loss in slump,  
gives improved timing and finishes perfectly, always**

**... UltraFiber500 is second to none !**

Finally, the best fibre for all concretes.



AUCKLAND

BRISBANE

MELBOURNE

SYDNEY

PERTH

# UltraFiber500

## **Description**

UltraFiber™ 500 fibre reinforcement, a curing and conditioning system for concrete, is a natural 100% virgin specialty cellulose polymer fibre patented and manufactured in an ISO 9001 certified facility. The fibres are very strong and are also hydrophilic. They will absorb up to 85% of their weight in water and release water back to the cement as needed to improve quality.

Max. Moisture uptake	85% by weight of fibre.
Fibre Count at 0.9kg / m <sup>3</sup>	1.44 billion
Density (Water = 1.0)	1.1
Surface Area (cm <sup>2</sup> /g)	25,000
Fibre tensile strength	620 – 900 MPa
Fibre spacing in concrete (at 0.9 kg/m <sup>3</sup> )	480um avg.
Plastic crack resistance (at 0.9 kg/m <sup>3</sup> )	85.1% less than ordinary conc.
Compressive strength increase (at 0.9 kg/m <sup>3</sup> , dry 28days)	7 – 16%
Flexural strength increase (at 0.45kg/m <sup>3</sup> , 28days)	8%
Flexural strength increase (at 2.7kg/m <sup>3</sup> , 28days)	13%
Bond strength increase between concrete and reinf.	20 - 45%

## **Purpose**

UltraFiber500 fibres are used to produce a pronounced reduction in plastic shrinkage, early age and temperature cracking in reinforced structural concrete and to reinforce plain concrete poured on grade. Due to their tensile capacity they increase flexural capacity and improve the ductility of reinforced concretes. They are hydrophilic and assist to cure the concrete from within, and can be used as an additional curing method in accordance with NZS3109. UltraFiber500 may also be used to reduce the permeability of plain concrete and protect steel, increase seismic strength of structural concretes, increase impact capacity, abrasion resistance and for added toughness and durability. UltraFiber500 usage is normally limited to aggregate based concretes, as their shearing action is required to disperse fibres.

## **Approved installations**

Includes floor slabs on ground, footpaths, driveways, parking areas, sloped paving, kerb and channel, decorative finishes, overlays, swimming pools surrounds, commercial floors, concrete with or without reinforcing, shotcrete, precast, polished concrete, casting insitu-walls and columns and fire rated concretes.

## **Guidelines – NZS3604:1999 for Houses**

UltraFiber500 fibres may be used as an alternative to temperature and shrinkage mesh such as 668 and 665 meshes in accordance with the Building Code. It shouldn't be used as an alternative for any reinforcement used on unstable ground, but may be used in combination for good results. Design of the concrete, joint spacing, thickness and subbase strength shall comply with the current NZ standard.

## **Finishing**

UltraFiber 500 provides superior finishability and has no restrictions or barriers to normal finishing techniques. This is because the fibres lie flat and are virtually invisible on the surface. These finishes include: trowel, broom, exposed aggregate, imprint, coloured, stained and many others. They also promote a more controlled water bleed rate that finishers can use to advantage.

Contact: Multiform System engineers for more assistance.

MFS UF500D1005

H/O: Multiform Systems Limited, P.O.Box 128-129, Remuera, Auckland 1541. NZ. [www.multiform.co.nz](http://www.multiform.co.nz)  
P: +649 528 8852, 0800 777740, F: +649 528 8883, M: 0410 353514 (AUS), [sales@multiform.co.nz](mailto:sales@multiform.co.nz)

**AUCKLAND**

**BRISBANE**

**MELBOURNE**

**SYDNEY**

**PERTH**