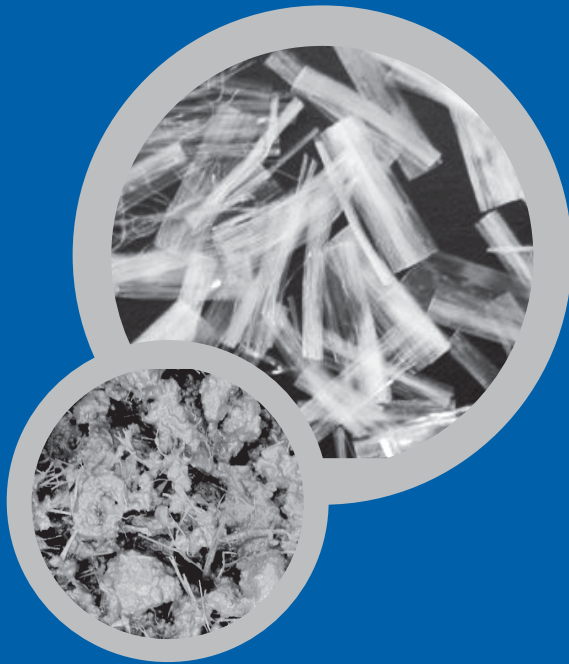


MEGA MESH®

Polypropylene Fibre



Mechanism of Mega Mesh - Concrete interaction

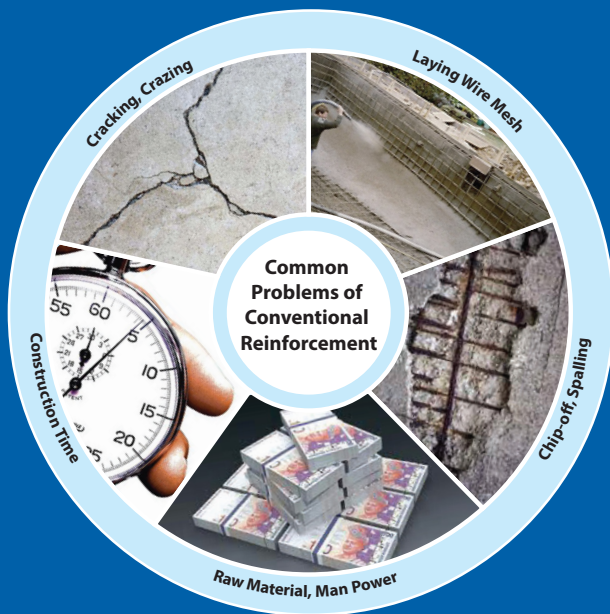
How Mega Mesh fibres stop plastic shrinkage cracking

Removal of the bleed water in concrete basically cause plastic shrinkage cracking. As the bleed water moves to the surface of the concrete tiny capillary channels develop as microscopic cracks in the concrete. Additional microscopic cracks develop and soon they meet, join, and develop into large macro-cracks. Similar cracks are being formed throughout the concrete and eventually these macro-cracks will grow together into distinct shrinkage cracks.

When the tiny macro-crack is intersected by a fibre it is prevented from further growth, and remains in its initial small size. Somewhere adjacent to the first crack another macro-crack develops and is also prevented from becoming larger when it meets a fibre. In this way the tiny macro-cracks are not allowed to develop into harmful cracks which would reduce the quality of the concrete.

Practical Advantages

- No UNLOAD & HANDLING PROBLEM – machinery, labor
- No EXTERNAL STORAGE – corrode, wide area, security
- No REINFORCEMENT PLACEMENT MISTAKE - layer, size, lapping
- No PROBLEM WHEN DISCHARGE CONCRETE – compaction, deformation, machinery



Cause	Fibre Type	MEGA MESH Polypropylene Fibre	STAHLCON Steel Fibre
Cracking in Concrete			
Reduced Plastic Shrinkage		BEST	
Reduced Plastic Settlement		BEST	
Reduced Segregation		BEST	
Improved Hydration		BEST	
Maximum Toughness Index		BEST	
Fire Resistance		BEST	BEST
Permeability		BEST	BEST
Corrosion Resistance		BEST	BEST
Greater Ductility			BEST
Flexural Toughness			BEST
Post-Crack residual strength			BEST
Crack width control			BEST
Fatigue Improvement			BEST
Impact Resistance			BEST
Abrasion Resistance			BEST
Long Term Shrinkage			BEST
Freeze-Thaw Damage			BEST
Tensile Load			BEST
Load Bearing Capacity			BEST
Additional Durability			BEST

Standard Compliances

- Conforms to BS EN 14889-2:2006

Specification

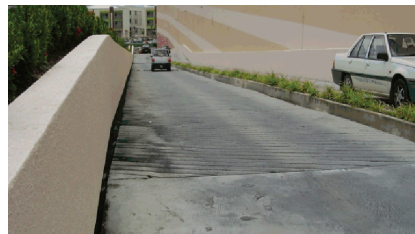


Type	Mega Mesh 55	Mega Mesh I - Fibrillated	Mega Mesh II - mono-filament
Material	Homo polypropylene (Macro Synthetic Fibre)	100% Virgin polypropylene	100% Virgin polypropylene
Color	White	White	White
Length	55mm	19 mm	12 mm
Mass (Denier)	4780 denier	1 g/9m (1000 denier)	15 denier
Specific Gravity	0.90 kg/dm ³	0.90 kg/dm ³	0.90 kg/dm ³
Aspect Ratio	65-70	Nil	Nil
E-modulus	7,288 N/mm ²	3,900 N/mm ²	3,500 N/mm ²
Tensile Strength	425 N/mm ²	400 N/mm ²	400 N/mm ²
Tensile at Break	45N per 1000 denier	35N per 1000 denier	35N per 1000 denier
Elongation at Break	15% (Average)	15% (Average)	15% (Average)
Chemical Composition	C-33%, H-67%	C-33%, H-67%	C-33%, H-67%
Melting Point	160-170 °C	160 - 170°C	160 - 170°C
Ignition Point	350°C	590°C	590°C
Thermal Conductivity	Low	Low	Low
Electrical Conductivity	Low	Low	Low
Acid and Alkaline Resistance	Superb	High	High
Dosage for 1m³ of concrete:	1 bag = 1 kg/m ³ - 9 kg/m ³ (concrete)	1 bag = 0.9 kg/m ³ (concrete & mortar)	1 bag = 0.6 kg/m ³ (concrete & mortar)
Advantages	Alkali resistant, non-corrosive, cost effective, higher quality of concrete, excellent in flexural toughness, excellent in premature cracking, and easy to handle and use.	Reduce plastic settlement plastic shrinkage cracking and permeability of concrete, increase impact and abrasion resistance	Reduce plastic settlement plastic shrinkage cracking and permeability of concrete
Application	-Floor slabs -Toppings and Overlays -Concrete Pipe -Concrete Driveways -Pre-cast Concrete and Sections -Median Barriers -Shotcrete Applications -Patching -Bridge Decks -Sidewalks -Water Reservoirs	-Floor slabs -Toppings and Overlays -Concrete Pipe -Concrete Driveways -Pre-cast Concrete and Sections -Median Barriers -Shotcrete Applications -Patching -Bridge Decks -Sidewalks -Water Reservoirs	-Wall plastering -Toppings and Overlays -Screeding for RC roof -Secondary reinforcement -Pre-cast Concrete and Sections -Median Barriers -Shotcrete Applications -Patching -Bridge Decks -Sidewalks -Water Reservoirs

**Data given is liable to change and is given without obligation*



Concrete Pipe



Ramps



Water Tanks



Swimming Pool



Enhance Edge Protection



Concrete Driveways