

Optimised For General Paving Works

BarChip Macro is optimised for residential paving works. It was the first structural synthetic fibre specifically designed for low strength concrete. BarChip Macro proved that structural synthetic fibres could out perform steel alternatives, paving the way for large scale use in residential and civil concrete application.

Product Features

Characteristic	Material Property
Base Resin	Modified Olefin
Length	42 mm
Tensile Strength	550 MPa
Surface Texture	Continuously Embossed
No. Fibres per kg	> 50,000
Specific Gravity	0.90 - 0.92
Youngs Modulus	8.2 GPa
Melting Point	150°C - 165°C
Ignition Point	Greater than 450°C

Benefits

- Comprehensive design and technical support
- Redistributes load - increased ductility / toughness
- Eliminates corrosion - long term durability
- Eliminates set-up of steel mesh
- 70% reduction in carbon footprint compared to steel
- Safer and lighter to handle than steel
- Reduced wear on concrete pumps and hoses
- Reduced cycle times and maintenance closure
- BarChip fibre is UV stabilised to resist solar deterioration
- Weather proof packaging on multi-stack UPVC pallets

Dosage

BarChip Macro has a regular dosage rate of 3 kg to 6 kg per cubic metre. Dosage rate should be determined based on performance requirements.

Mixing

BarChip Macro is added “Bags and All” to the mixer with initial batch water. Follow with dry materials and mix at high speed for 5 minutes. Regular dose rates may reduce measured slump by between 10 mm and 20 mm. For more details, refer to BarChip’s “Batching and Mixing” guide, available from the BarChip website.

Pumping

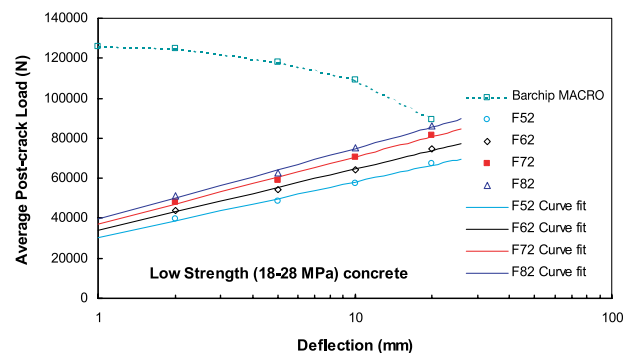
BarChip Macro can be safely pumped through 50 mm rubber hoses without difficulty. Precautions should be taken to ensure the fibres can pass freely through the hopper grate.

Handling and Storage

BarChip Macro is packed in 3 kg mulchable paper bags (351 kgs per pallet) and supplied on durable recyclable plastic pallets with a fitted rain hood to allow storage outdoors. Bags stored individually must be protected from water damage.

For full safety refer to BarChip Macro SDS, available for download at: www.barchip.com.

Results



In low strength concrete (18 -28 MPa), BarChip Macro dosed at 3 kg/m³ outperforms traditional steel reinforcement up to 20 mm deflection. A 12 mm deflection is roughly equivalent to a 5 mm crack width.

In high strength concrete (32 - 46 MPa), BarChip Macro dosed at 3 kg/m³ outperforms traditional steel reinforcement up to 8 mm deflection. An 8 mm deflection is roughly equivalent to a 3 mm crack width.

BarChip Inc.

info@barchip.com

N. America: +1 704 843 8401

Australia: +61 1300 131 158

EMEA: +353 (0) 1 469 3197

Asia: +65 6835 7716

S. America: +56 2 2703 1563

Brazil: +55 19 2121 5417



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