NOVOMESH® EXTERNAL

INFORMATION SHEET

NOVOMESH® EXTERNAL FIBRE SYSTEM

Novomesh® EXTERNAL, secondary reinforcement system for concrete combines the benefits of high performance polyolefin macro fibres with sinusoidal deformations and 100 percent virgin homopolymer polypropylene micro fibres containing no reprocessed olefin materials. Products used in Novomesh External are European Standard EN 14889-2:2006 compliant, carry CE marking and have been specifically engineered and manufactured in an ISO 9001-2000 certified facility for use as concrete reinforcement. The micro fibre in Novomesh® EXTERNAL can be either Fibermesh® 300-e3 (fibrillated) or Fibermesh® 150-e3 (monofilament) depending on performance requirements and specific application. This pioneering combination takes concrete fibre reinforcement to a new level of performance and provides a fast, efficient and easy to use alternative to steel wire mesh.

ADVANTAGES

Non-magnetic • Rustproof • Alkali proof • Requires no minimum amount of concrete cover • Is always positioned in compliance with codes • Safe and easier to use than traditional reinforcement • Saves time and hassle.

FEATURES & BENEFITS

- Macro synthetic and micro synthetic combination for secondary reinforcement
- Inhibits crack development and has superior post-crack load bearing capacity than crack control steel mesh.
- Reduces settlement and bleeding
- Reduces plastic shrinkage and settlement cracking
- Increases impact, abrasion and shatter resistance
- Increases freeze/thaw resistance
- Provides improved durability
- Provides higher levels of residual strength

COST - EFFECTIVE ALTERNATIVE

With its unique combination of macro and micro-synthetic fibres, Novomesh EXTERNAL can deliver significant reductions in overall construction time and cost by potentially reducing slab thickness and eliminating the need to cut and place traditional crack control wire mesh.

Novomesh® EXTERNAL also eliminates the problems and risks associated with incorrect placement and/or support of crack control wire mesh - providing a superior integral network of fibre reinforcement throughout the concrete mix.

Novomesh® EXTERNAL's ease of use and finishing characteristics make it ideal for use in a wide range of applications, including;

- External roads, pavements & hardstandings
- Lorry parks
- Airport taxiways
- Footpaths, walkways & bike paths
- Golf cart tracks
- Boat ramps & slipways
- Dams & reservoirs
- Patterned & exposed aggregate concrete
- Overlays & toppings
- Slip formed concrete
- Precast elements
- Sprayed concrete

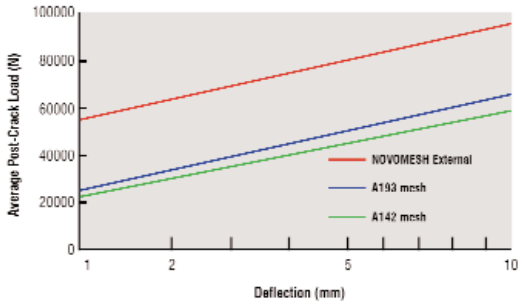
PROPEX
CONCRETE SYSTEMS

NOVOMESH® EXTERNAL

PROVEN POST-CRACK PERFORMANCE

In the Novomesh® EXTERNAL system, the macro fibre's outstanding performance maximises the load bearing capacity should a crack develop. This superior post-crack performance has been demonstrated internationally in independent test laboratories, including a series of post-crack performance tests conducted at the internationally respected concrete testing specialist Dr. E.S. Bernard of TSE Pty Ltd., Sydney, Australia.

The graph below shows the average post-crack load capacities for Novomesh® EXTERNAL fibre reinforced concrete specimen panels, compared with panels reinforced with A193 and A142 steel wire mesh.

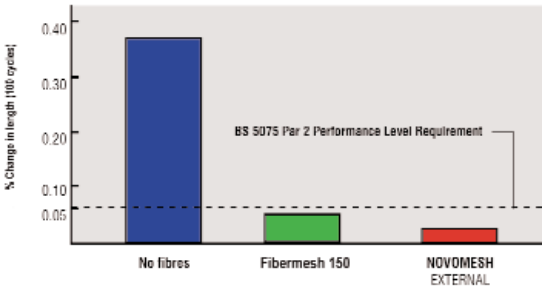


The test results show that:

- The panels reinforced with Novomesh® EXTERNAL exhibited greater post-crack capacity than the crack control steel wire mesh
- In many instances Novomesh® EXTERNAL can be used as an alternative to A193 and A142 crack control steel wire mesh.

PROVEN FREEZE-THAW RESISTANCE

The necessity for external concrete to have resistance to frost attack is well documented and acknowledged. In practice, engineers have generally specified the use of air entraining admixtures in concrete to provide frost resistance and protection against spalling.
In the last decade our BBA accredited Fibermesh 150 fibres (formerley known as Stealth) have been widely specified by engineers, contractors and ready mix concrete suppliers as an alternative to air-entraining admixtures where freeze/thaw resistance, in accordance with BS 5075-2, is required.
Novomesh® EXTERNAL now offers even greater protection against the damaging effects of frost attack and spalling caused by de-icing salts.



MIXING DESIGNS AND PROCEDURES: Novomesh® EXTERNAL should gradually be added to the concrete, after batching the other concrete materials, either on site or at the batching plant and mixed for sufficient time (minimum 5 minutes at full mixing speed) to ensure uniform distribution of fibres throughout the concrete.

JOINTS: Joints should be provided in accordance with Technical Report 34 of the Concrete Society technical guidelines and positioned at approximately 6 - 8m centres. Additionally, the aspect ratio should be no greater that 1 : 1.5.
Joints can be constructed as formed, induced or sawn joints with or without a load transfer device, depending on application and loading.

FINISHING: Novomesh® EXTERNAL fibre reinforced concrete can be easily finished with either brush, tamp or float to provide an appropriate wearing surface for your external application.

TYPICAL DOSAGE RATES:

Footpaths, walkways and other minimal load applications	Ground bearing slabs, driveways, parking areas and higher load applications
2 - 4 kg/m³	**4.5 - 7 kg/m³**

TECHNICAL SERVICES

Propex Concrete Systems is backed by our team of reinforced concrete specialists who can carefully analyze each project and provide fibre reinforced concrete design solutions to ensure maximum project performance and cost efficiency.

PROPEX
CONCRETE SYSTEMS

USA
4019 Industry Drive
Chattanooga, Tennessee 37416
TEL: (423) 892-8080
FAX: (423) 892-0157

INTERNATIONAL
Propex House, 9 Royal Court, Basil Close,
Chesterfield, Derbyshire, S41 7SL. UK
TEL: +44 (0) 1246 564200
FAX: +44 (0) 1246 564201

www.fibermesh.com