

DURUS® EasyFinish

MACRO SYNTHETIC FIBRE FOR
HIGH QUALITY CONCRETE SURFACES



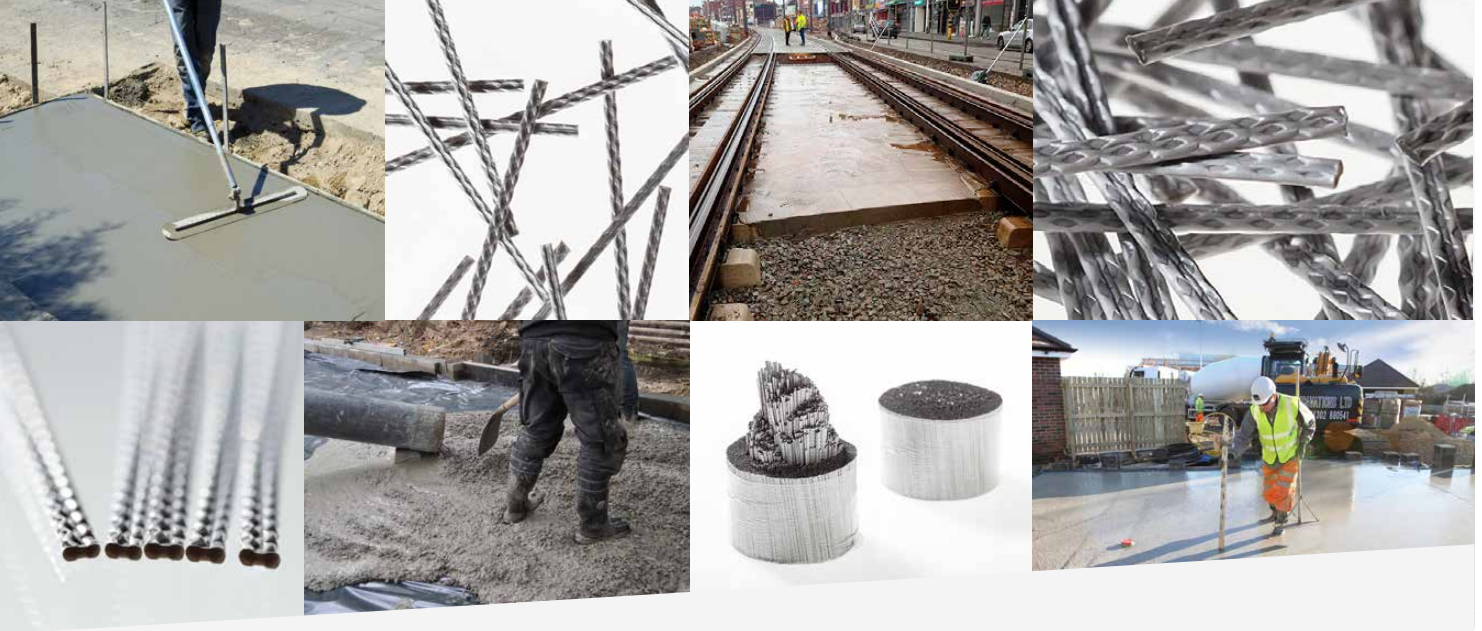
Designers as well as contractors around the globe appreciate the advantages of macro synthetic fibres over steel mesh for concrete reinforcement. However, standard concrete mix designs applied in many EU countries so far limited their use in a number of applications. Mixes containing low portions of sand left builders with no alternative but to install steel mesh in industrial floors, residential floor slabs or precast walls. Durus EasyFinish is putting an end to this constraint. Designed to facilitate a perfect finish, this fibre is suitable for challenging concrete mixes in the most demanding applications.

To avoid synthetic fibres showing up in the surface, a minimum sand content of 45% is required. At a time where cost efficiency is up high on the agenda for almost any construction project, concrete mixes with lower sand content are commonly seen. Such concrete however is hard to finish. Not so with one of the most recent Adfil synthetic macro fibre innovations applied.

Durus EasyFinish lives up to its name. Added to the mix, this concrete reinforcement fibre makes for a smooth

appearance of the surface as well as outstanding post-crack control. This opens up a whole new world of possibilities.

Self-compacting or slump concrete reinforced with this polypropylene fibre can be poured directly onto the flooring system. Eliminating the need to place and fix steel mesh, this significantly reduces construction time. Associated health and safety risks in the handling of steel are eliminated.



Advantages & Benefits

Durus EasyFinish gives significant benefits over steel mesh in reinforced concrete:

- Supports cost efficient concrete mix designs
- Reduces construction time
- More simple to apply, transport and handle
- Safer for workers to use than steel
- Delivers embodied carbon dioxide savings
- Creates more durable high quality concrete surfaces

General Applications

- Industrial floors
- Residential floor slabs
- Pavements
- Track slabs
- Agricultural concrete
- Precast concrete

Chemical and Physical Properties

Fibre length	40 mm
Fibre type	Macro monofilament
Shape	Embossed elongated design
Absorption	None
Specific gravity	0,92 kg/dm ³
Electrical conductivity	None
Softening point (melt point)	165°C
Colour	Grey
Tensile strength	470 MPa
E - modulus	6000 MPa
Chloride content	None
S03 content	None

All Durus macro synthetic fibres are chemically inert. Durus reinforced concrete enjoys the benefits of enhanced impact and abrasion resistance as well as post-crack control leading to an extended service life. The fibres have been subjected to the EN ISO 13438 aging test, which proved 100 years durability under normal conditions (see website for full report).

Finishing Tests

The finishability of Durus EasyFinish has been tested in different applications and flooring concrete mix designs.

The number of fibres visible in the surface was greatly reduced confirming the product's performance. Durus EasyFinish has also proven successful in self-compacting concrete. Typical end uses include the application in precast elements requiring a perfect finish at the top of the mould.

Geometry

The product's geometry, polymer configuration, length as well as diameter have been tailored so that the fibre is pushed down into the surface during finishing and remains in position throughout the hardening process.

Tools

In flooring applications we advise the use of a concrete float to give the surface a smooth finish. The float should be as wide as possible. It is advised to manually float the surface before power floating. To create a slip resistant finish, a "roller bug" roller should be applied. It roughens the surface while pushing the fibres even deeper into the concrete.

Design Service

Durus EasyFinish utilises the same technology as the high performance macro synthetic fibre Durus S500 (specific shape and embossment). Based on beam tests carried out for different dosages in accordance with EN 14651, Adfil Engineers can deliver a bespoke design calculation including professional indemnity insurance for your next project.

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Adfil. Reinforced concrete reinvented.