

# MasterFiber<sup>®</sup> 155

Macro structural synthetic polypropylene fibre

## DESCRIPTION

**MasterFiber 155** is a macro synthetic fibre for concrete and shotcrete.

**MasterFiber 155** has a history within the mining and construction industry and has been used in major tunneling and underground projects around the region.

The use of synthetic fibre reinforced shotcrete outperforms mesh reinforced shotcrete with improved crack resistance, ductility, energy absorption and impact resistance. Properly designed synthetic fibre reinforced shotcrete will reduce or eliminate cracking and allow for deformation with ductile stress redistribution.

## FIELDS OF APPLICATION

Synthetic Fibre reinforced shotcrete (SFRS) utilizing **MasterFiber 155** is typically used in such applications as:

- Ground Support
- Tunnel final linings
- Tunnel repairs
- Slope stabilization
- Retaining walls and soil nailing.

## FEATURES AND BENEFITS

Allows shotcrete to follow the contours of the rock face or ground, giving a consistent thickness, which provides a significant reduction in shotcrete consumption.

The need to install mesh is eliminated and the decrease in time for which lifting equipment is needed result in reduction of cycle times and overall costs.

Elimination of the difficult and dangerous job of installing mesh considerably increases safety on the work site.

Increases the crack resistance, ductility, energy absorption and toughness of concrete.

## TECHNICAL DATA

Length	: 55mm
Diameter	: 0.8mm
Aspect Ratio	70
Tensile Strength	: 300 MPa
Length	: 55mm

## APPLICATION

**MasterFiber 155** should preferably be added at the batching plant and can be added to the mix at any stage during batching but not as the first component. If the fibres are added in the drum mixer they should be introduced at a maximum speed of 5kg/minute with a drum speed of 12- 18rpm then mixed into the shotcrete for approximately 70 rotations (4-5mins) at maximum drum revolution speed.

## DOSAGE

Energy absorption (J) of plate test (concrete C35/45) according to Efnarc/SNCF:

Dosage	S25 (J)	Dosage	S25 (J)
4	650	7	1050
5	800	8	1100
6	900	9	1200

## PACKAGING

**MasterFiber 155** is supplied in 5 kg boxes.

## SHELF LIFE

**MasterFiber 155** should be kept dry and pallets should not be double stacked please consult a BASF technical representative.



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# MasterFiber<sup>®</sup> 155

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