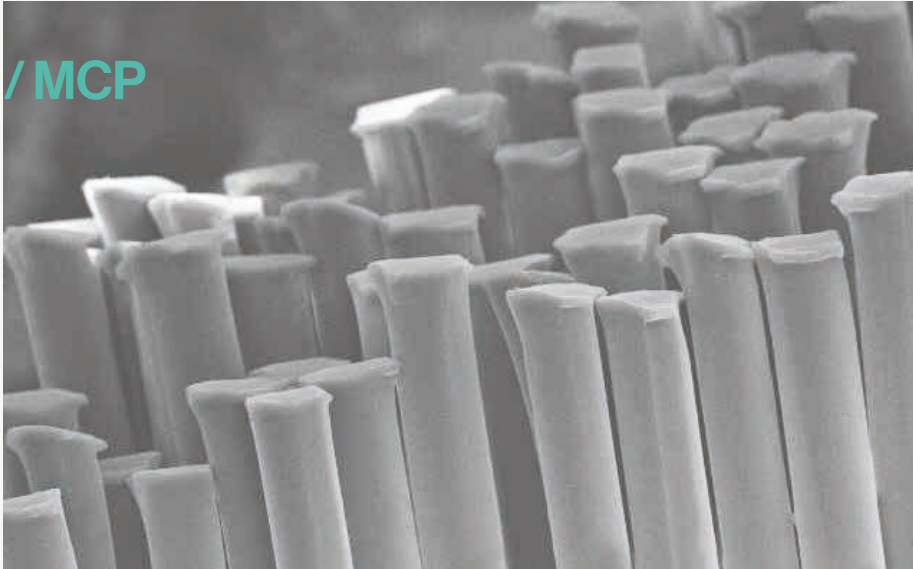




**IFG**Asota  
**AFC/  
MCP**

**A clear  
improvement  
of the concrete  
quality**

## AFC / MCP



## AFC / MCP



### General

IFG Asota AFC (Anti Fire Crack) and MCP (Micro Crack Preventer) are Polypropylene short cut fibres and have been developed for adding to concrete. IFG Asota AFC/MCP improves all major properties of concrete.

### Advantage of IFG Asota AFC/MCP

- Reduction of cracks due to shrinkage by up to 100%
- Significant lower damage rate (flaking off) in case of fire
- Clear improvements such as for example ductility and durability
- Significant lower brittleness
- Prevent cracks in asphalt concrete
- Simple handling
- Extremely resistant to chemicals
- Environmentally friendly, does not rot and is corrosion resistant
- Harmless from medical point of view, does not enter the lungs as asbestos for example



Reduction of  
cracks due to shrinkage  
by up to 100%

**with IFG Asota  
AFC/MCP**

**without IFG Asota  
AFC/MCP**

## Applications

- Tunnels
- Foundations
- Bridges
- Cement Floors
- Roadways
- Fire Walls
- Finished Concrete Products
- Cellars
- Subways
- Swimming Pools
- Others



## MCP/AFC Fibre Key Characteristics

FIBRE CHARACTERISTICS	UNIT	MCP 18	MCP 31
Fibre cross section	-	Round	Round
Cut length	mm	6 / 12 / 18	6 / 12 / 18
Number of fibres (12 mm)	Million/kg	379	119
Tear strength	N/mm <sup>2</sup>	≥ 400	> 345
Elongation at break	%	≤ 80	≤ 80
Fibre dispergation	-	excellent	excellent
Melting Point	°C	163 – 170	163 – 170
Diameter	Micron	18	31
Density	g/cm <sup>3</sup>	0,91	0,91

### Recommended quantities to use

- IFG Asota MCP 0,6–0,9 kg per m<sup>3</sup> concrete (1–1,5 lb/cy)
- IFG Asota AFC up to 1,8 kg per m<sup>3</sup> concrete (3 lb/cy)

### Processing

- Simple in all standard mixing machines
- Fibres can be added to dry and wet compositions
- No special requirements to mixing time
- Concrete mixing car approx. 1 min./m<sup>3</sup> concrete
- Concrete mixer approx. 50 sec.

### Packaging

- Cardboard boxes: 250–500 kg (550–1100 lb)



## MCP/AFC – Improvement of major concrete properties

TEST	STANDARD	MCP 18	MCP 31
Fibre length	-	12 mm	12 mm
Dosage	-	600 g/m <sup>3</sup>	900 g/m <sup>3</sup>
Compressive strength	ASTM C 39	+ 5,4%	+ 5,4%
Tensile strength	ASTM D 638	+ 7,9%	+ 10,5%
Flexural strength	ASTM C 1018 ASTM C 1399	+11,4%	+5,7%
Flexural toughness	ASTM C 1018 ASTM C 1399	improved	improved
Abrasion test	IS 1237	25,3% improvement	12,1% improvement
Water permeability	DIN 1048	44,8% improvement	36,1% improvement
Micro cracks	-	No cracks	No cracks

All test results compared to samples without fibre reinforcement.

Full test report available on request.

**Test period:** March – June 2010

**Tests were carried out by:** CIVIL-AID Technoclinic Pvt. Ltd.  
No.1/4, 2<sup>nd</sup> Floor Annexe, A.P.E. Trust Building,  
N.R. Colony, Bangalore 560 019, India



# IFG Asota AFC/ MCP

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## Contact

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