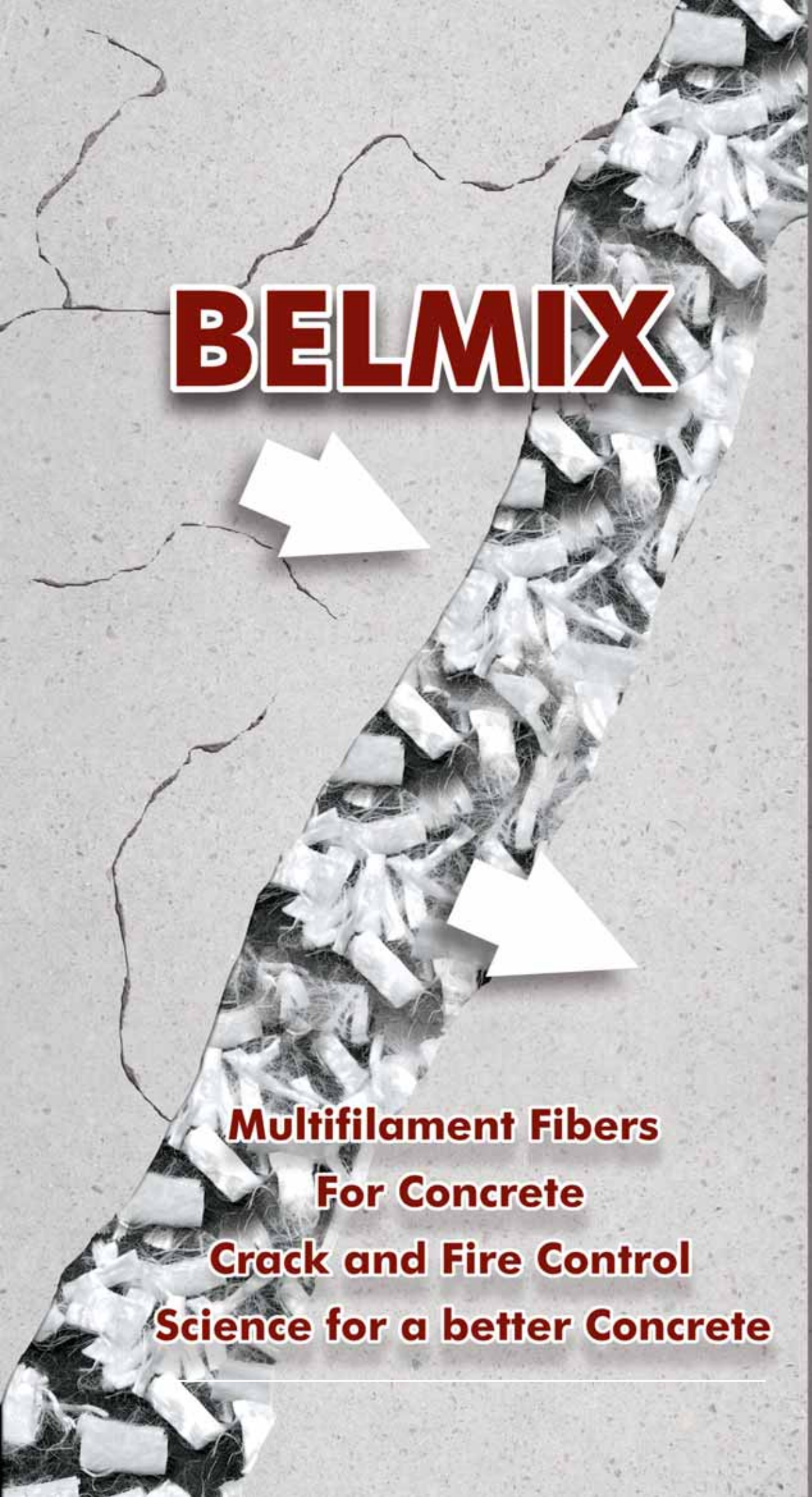


BELMIX

Multifilament Fibers
For Concrete
Crack and Fire Control
Science for a better Concrete

S.A. BELGIAN FIBERS N.V.

ISO 9001

Description

Description

Belmix is a high performance multifilament polypropylene fiber, developed as early-age crack control, freeze/thaw cycle, impact and fire resistance for cementitious materials

Belmix is a specially engineered fiber based on selected raw materials and manufactured by Belgian Fibers under controlled and specified conditions.

Belgian fibers company is ISO certified for development and production of specialised polypropylene and polyethylene fibers for many high-performance industrial applications.

Types & Properties

Types and Properties

	BELMIX			
	BM6	**BM12**	**BM18**	**BM20**
Length(mmm)	6	12	18	20
Diameter (µ)	34	34	34	34
Material	Polymerized - olefin.			
Density	0.910 g/cm^3			
Melting Point	160°C – 170°C			
Color	White			
Tensile Strength	Stretch-enhanced to : 300-400 N/mm^2			
Chemical resistance	Excellent - especially in alkaline conditions			

- **Millions of microfilaments per Kg !**
- **30 - 50 x more fibers than fibrillated fibers !**
- **High surface area per Kg. ➛ lower dosage for the same results as fibrillated fibers !**
- **Smooth fiber surface = ‘fiber-free’ concrete surface !**

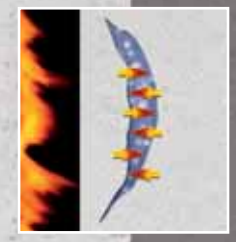
Advantages

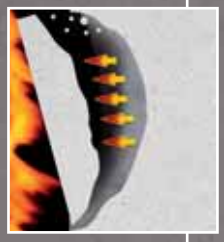
Advantages – Benefits

- Excellent crack reduction in early-age concrete
- Better concrete durability & reduced surface dusting.
- Improves impact and abrasion resistance
- Improves mix cohesiveness.
- Reduces segregation of the mix
- Significant improvement in freeze-thaw cycle resistance
- Saves time
- Improves water migration
- Reduces shotcrete rebound
- Less concrete waste

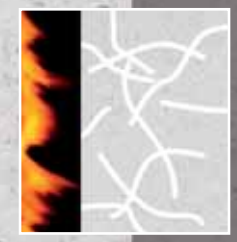
Without PP fibers

With PP fibers





Without PP fibers
Steam causes Spalling



With PP fibers
Fibers are melting, channels are made, steam can escape.

Fire Protection !

Significant improvement in fire resistance and reduction to spall-damage.
Better structural integrity protection.

Does not replace structural reinforcement.
Does replace steel mesh used as secondary reinforcement and crack control
Does not decrease concrete thickness.

Packaging :

Degradable paper sacks	400, 600, 750, 900 gr.*
Plastic bags	
Bulk - BigBags	400 Kg
Bags	25 Kg

*Others on request : from 100gr up to 1.5 Kg

BELGIAN FIBERS

Applications :

- Road
- Flooring
- Shotcrete
- Refractory bricks
- Segmental lining
- Precast products
- Tubes
- Screeds
- Pavements
- Sewer pipes
- High way safety barriers
- Polished architectural panels
- Print concrete
- Stucco Products


Floors


Screeds


Airport

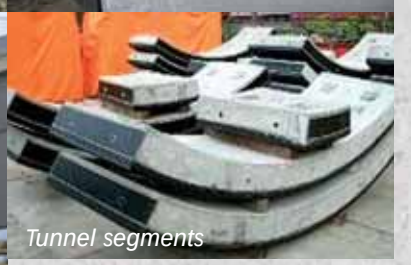

Pavements


Architectural panels


Shotcrete


Sewer pipes


Precast panels


Tunnel segments

Mixing – Dosing

In premixer: Add Belmix to dry or wet concrete
No additional mixing time

In truck mixer on the jobsite or plant
Mixing at high drum speed.
Mixing time :1min per m^3 to optain a good fiber dispersion.
By hand (pre-bagged)

!! We would like to advise testing before using degradable sacks in very dry concrete mixes.

Automatic via Dosing Equipment

Standard dosing rate:

Crack control* : 600 – 900 g /m^3
Fire resistance* : 1 -3 Kg/m^3
* other addition upon local prescriptions

Finishing

Concrete can be finished by any standard technique.
Compatible with all concrete admixtures.
Can be pumped and sprayed.

Storage

Boxes of fibers should be stored in dry conditions

Information

For further information contact :

nv Belgian Fibers sa
Industrial Boulevard 91
B-7700 Mouscron
T +32 56 856 804
+32 56 856 805
F +32 56 344 276
E info@belgianfibers.be

Walloon Region of Belgium
External Relations Department
(DARE-AWEX)
T +32 2/211 55 11
F +32 2/211 55 70
E bib.awex@rw.be