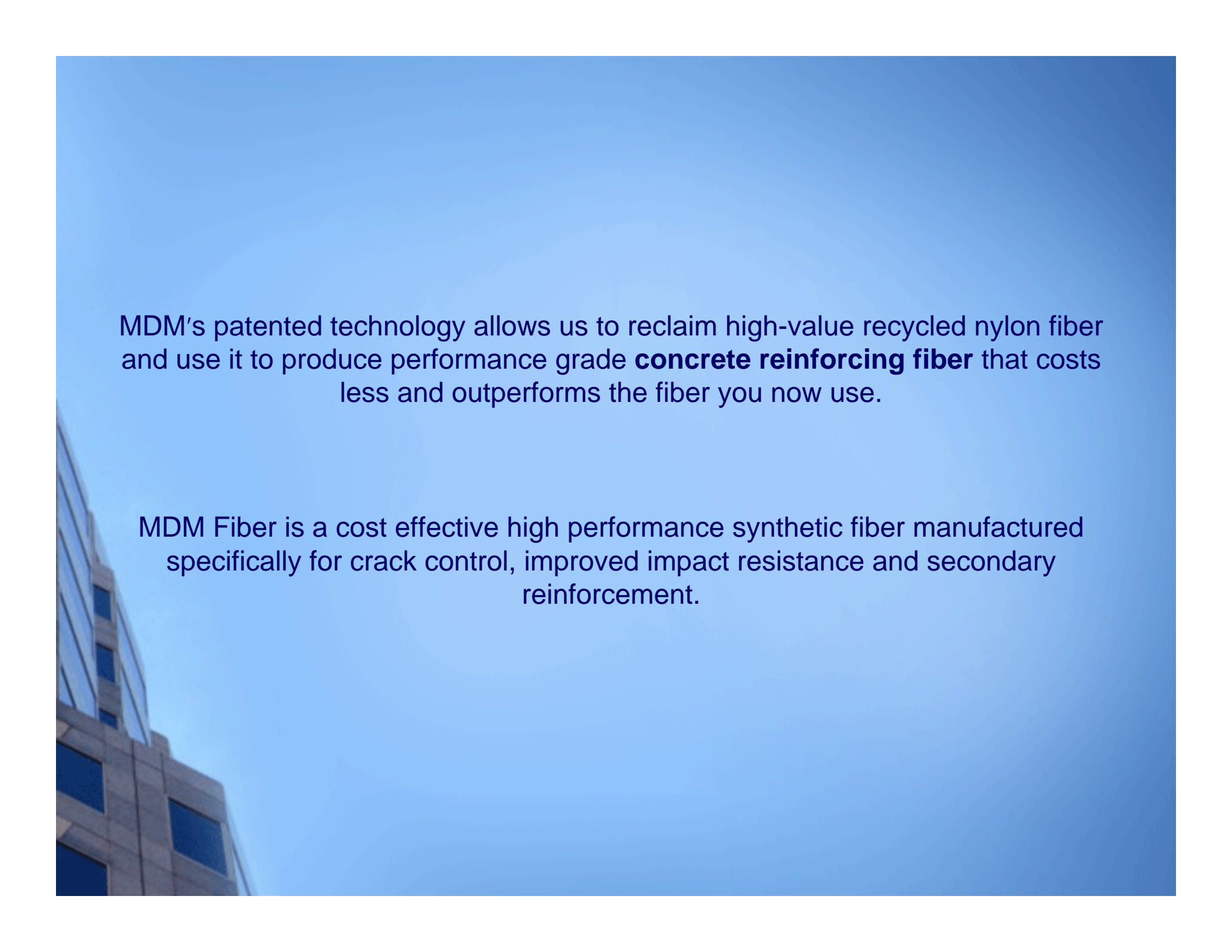





MDM Fiber

Increased Performance | Decreased Cost | Environmental Improvement



MDM's patented technology allows us to reclaim high-value recycled nylon fiber and use it to produce performance grade **concrete reinforcing fiber** that costs less and outperforms the fiber you now use.

MDM Fiber is a cost effective high performance synthetic fiber manufactured specifically for crack control, improved impact resistance and secondary reinforcement.



Unlike fibers made from polypropylene (PP), MDM Fiber is made of **nylon** fiber, recognized throughout the world for its superior strength.

MDM Fiber is a carefully controlled, well-graded blend of nylon, with fibers measuring 3/4" to micro length, and calcium carbonate powder (limestone) for additional strength improvement.

Nylon vs Polypropylene (PP)

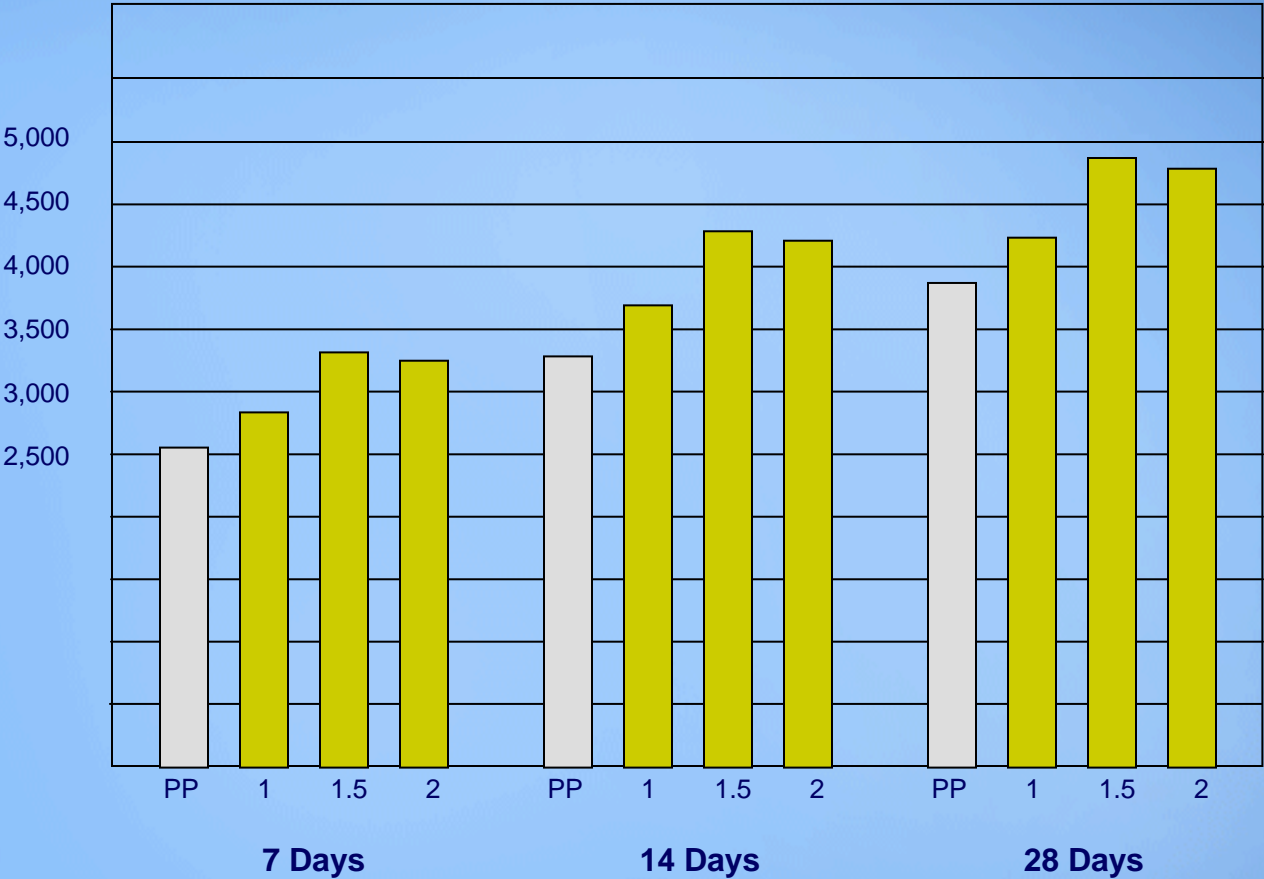
Property	Unit	Test Method	PP Fiber	Nylon Fiber
Density	g/cm	ASTM D792	0.900 - 0.910	1.120 – 1.150
Tensile Strength - Break	psi	ASTM D638	4,500 – 6,000	6,000 – 24,000
Tensile Strength – Yield	psi	ASTM D638	4,500 – 5,400	8,000 – 13,000
Flexural Strength	psi	ASTM D747	5,000 – 8,000	6,000 – 17,000
Flexural Modulus	psi	ASTM D790	130,000 – 200,000	390,000 – 410,000
Melt Point			324°F (162°C)	491°F (255°C)
Absorption			0% - 1%	2% - 3%
Fiber Length			Graded	Well Graded
Acid & Salt Resistance			High	High
Alkali Resistance			Alkali Proof	Alkali Proof

MDM Fiber vs Welded Wire

	MDM Fiber	Welded Wire
Reduces plastic shrinkage crack formation	√	
Reduces segregation/plastic settlement cracking	√	
Increases compressive strength	√	
Never fatigues or corrodes	√	
Can decrease cement content	√	
Holds cracks together once formed	√	√
Recommended concrete cover	N/A	2"
Increases impact and abrasion resistance	√	
Reduces permeability – corrosion is slowed	√	
Rustproof and non-magnetic	√	
Placed uniformly 3D throughout concrete	√	
Always placed correctly in compliance with accepted practices	√	
Safe to handle and easily included in concrete	√	

MDM Fiber vs PP fiber

Compressive Strength in PSI



- Control : PP fiber @ 1lb/CY
- MDM Fiber : From 1.0 to 2.0 lb/CY

All mixes were identical with the exception of adding either PP fiber or MDM Fiber

Applications



Fiber reinforcement supports an unlimited number of concrete applications including . . .

- Residential
- Commercial
- Industrial
- Transportation
- Walls
- Shotcrete
- Precast
- Metal Decks



There are 6 *primary* reasons to use MDM Fiber

Excellent crack control

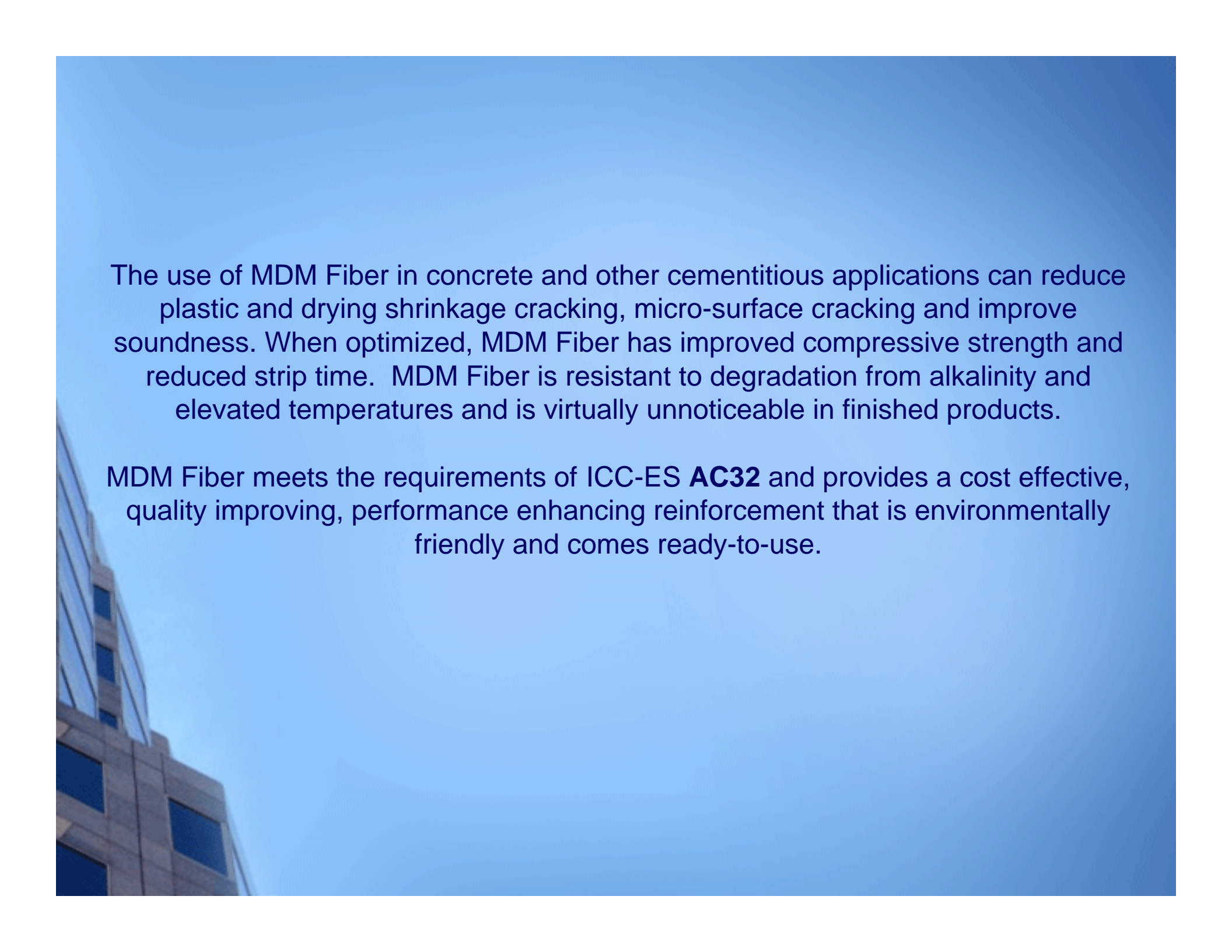
Increases tensile & flexural strength

Nylon is stronger than PP

Can reduce cement content

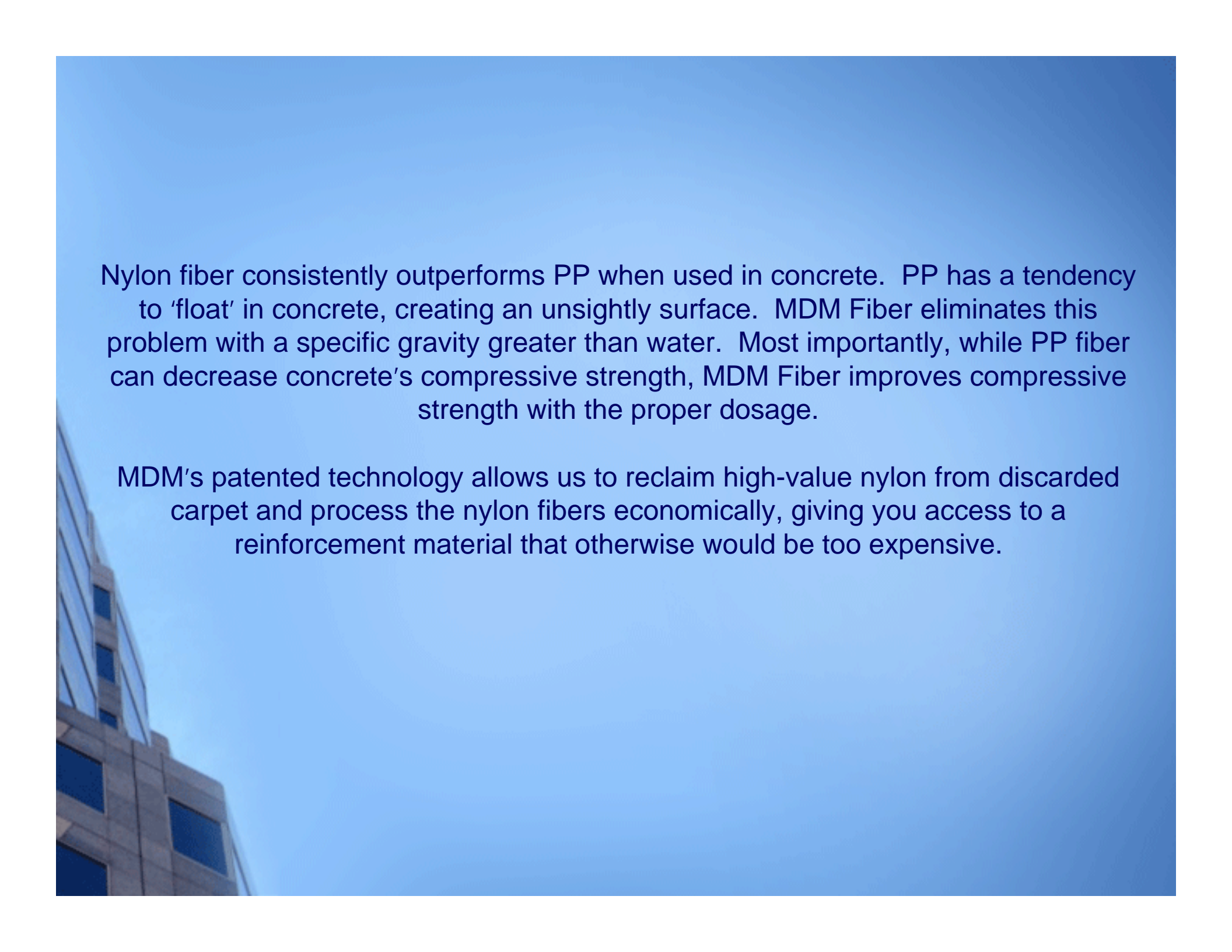
Lowest fiber cost available

Environmentally correct



The use of MDM Fiber in concrete and other cementitious applications can reduce plastic and drying shrinkage cracking, micro-surface cracking and improve soundness. When optimized, MDM Fiber has improved compressive strength and reduced strip time. MDM Fiber is resistant to degradation from alkalinity and elevated temperatures and is virtually unnoticeable in finished products.

MDM Fiber meets the requirements of ICC-ES **AC32** and provides a cost effective, quality improving, performance enhancing reinforcement that is environmentally friendly and comes ready-to-use.



Nylon fiber consistently outperforms PP when used in concrete. PP has a tendency to 'float' in concrete, creating an unsightly surface. MDM Fiber eliminates this problem with a specific gravity greater than water. Most importantly, while PP fiber can decrease concrete's compressive strength, MDM Fiber improves compressive strength with the proper dosage.

MDM's patented technology allows us to reclaim high-value nylon from discarded carpet and process the nylon fibers economically, giving you access to a reinforcement material that otherwise would be too expensive.



Let's just be honest. . .

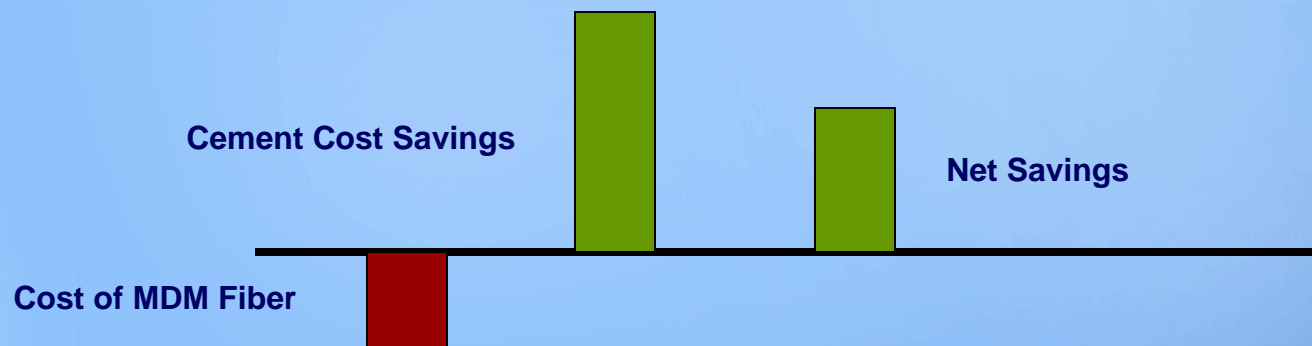
Recycled nylon fiber isn't as 'pretty' as other reinforcement products made from virgin materials. We realize this. But honestly, does it really matter?

The 'beauty' of using nylon fiber in concrete is that once you add nylon to your mix you'll never see it again. Our competitors can't say that. Unlike pp fiber that floats to the surface, nylon stays in its place and provides uniform reinforcement.

While we may not win any beauty contests with our fiber, we will exceed your requirements in more important areas like performance and cost.

If I offered you \$2 for every \$1 you gave me would you take the deal?

With proper engineering and an optimal use of MDM fiber content in your mixes, it's possible to reduce the amount of cement without compromising strength, providing a dramatic return on investment.



Features & Benefits

Cost effective, high-performance, synthetic reinforcing fiber

Applications include site cast, Precast and shotcrete

Never corrodes or fatigues

Proven effective in hundreds of projects and a variety of applications

Environmentally Friendly - made from 100% recycled carpet

1.0 to 3.0 lb/cy for crack control; 3.0 to 7.0 lb/cy for strength improvement

Features & Benefits

Reinforcement distributed uniformly throughout concrete mix

Virtually unnoticeable in finished products

Improves fatigue crack resistance

Resists degradation from alkalinity

Improves tensile strength

Reduces strip time

Reduces plastic shrinkage and drying shrinkage cracking

Reduces product segregation

Withstands temperatures up to 491°F (255°C)

Satisfies AC32 requirements

Improves soundness

Testing



MDM Fiber provides technical support to help you develop an optimum mix with our fiber. This includes samples and assistance with your mixes or new product development.

Our experienced team will help you develop the best and most cost effective fiber content for your concrete projects.

Packaging

MDM Fiber is available in a 750 lb (342 kg) **Super Sack** for use in the Model 750 automatic dispensing system. The bulk MDM Fiber is packed and shipped in our specially designed full dump, recyclable bags.



MDM Fiber is also available in convenient, ready-to-use 5lb (2.2 kg), 10 lb (4.5 kg) or 20 lb (9 kg) bags for manual dispensing. Fiber is available in tear-open poly bags or toss-in repulpable paper bags.



Dispensing


MDM automated dispensing systems deliver fiber into the concrete mix while the truck charges, eliminating loading steps, moving trucks through the yard faster and boosting efficiency and profits. Automated dispensers also reduce mistakes by human error, eliminate product waste while ensuring order accuracy. Eliminating the need to climb on the truck to load fiber improves employee safety.

The MDM Fiber **Model 250** automatic bulk dispenser is designed exclusively for use with MDM Fiber and represents the most cost effective solution for smaller users.



The MDM Fiber **Model 750** automatic bulk dispenser is designed exclusively for use with MDM Fiber and represents the most cost effective solution for large users.





MDM Fiber is a proprietary reinforcing fiber protected by U.S. Patent No. 6,971,784 and other U.S. and foreign patents. MDM Fiber™ is a Registered Trademark of Mix Design Methods, LLC.

mdmfiber.com

MDM Fiber™

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