

Dramix®

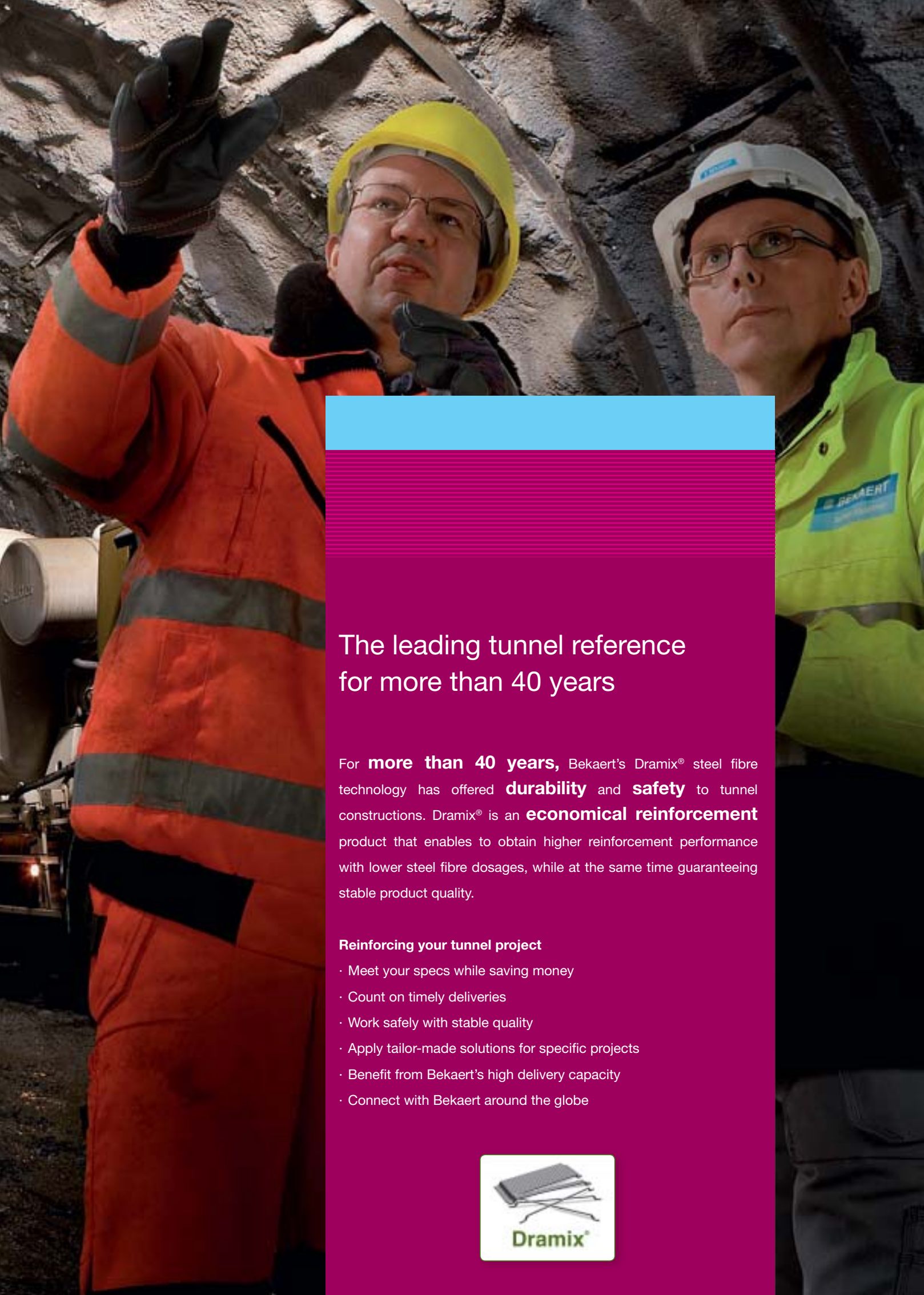
@ BEKAERT

better together

Dramix® steel fibre reinforcement for tunnel works



Trusted expertise from the industry leader



The leading tunnel reference for more than 40 years

For **more than 40 years**, Bekaert's Dramix® steel fibre technology has offered **durability** and **safety** to tunnel constructions. Dramix® is an **economical reinforcement** product that enables to obtain higher reinforcement performance with lower steel fibre dosages, while at the same time guaranteeing stable product quality.

Reinforcing your tunnel project

- Meet your specs while saving money
- Count on timely deliveries
- Work safely with stable quality
- Apply tailor-made solutions for specific projects
- Benefit from Bekaert's high delivery capacity
- Connect with Bekaert around the globe



Are these your tunnel industries?

Dramix® steel fibres have proven their value in tunnel constructions all over the world and in a wide variety of tunnel industries:



Road tunnels



Subway tunnels



Railway tunnels



Mining tunnels



Hydro-power galleries



Water treatment galleries



Hadyn Davies
Client Manager Tunnels
High Speed 1, LCR
London (GB)

“High-quality reinforcement in full partnership”

As the Tunnel Client Manager for the Channel Tunnel Rail Link (now High Speed 1), **Hadyn Davies** successfully steered the building of 40 kilometres of tunnel in the right direction. The majority of the tunnels, used by **Eurostar** on its route from London to the Channel Tunnel, have been safely reinforced with Dramix® steel fibre concrete.

“Bekaert worked closely together with us, so they could offer us the most economical design combined with the highest performance possible.”

“The handling capacity and surface finish of the segments proved to be very good,” according to Mr. Davies. “This convinced us that **Dramix® steel fibre reinforced segments are the future**. Above all, thanks to Bekaert’s economical design, we could realize **a cost saving of more than 10 percent** over conventional bar reinforcement.”

Worldwide tunneling expertise

“I am very impressed with the **international presence** of Bekaert tunnel experts, which proves the company’s **commitment to worldwide quality**. During company visits, I also discovered Bekaert’s testing facilities and quality control capabilities. This made me feel confident about the quality and high standards of Dramix® steel fibres.”

Gothard Tunnel

Type: shotcrete

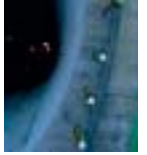
Location: Switzerland



Kakegawa No1 - Twin road tunnel

Type: final lining

Location: Kakegawa, Japan



Cigar Lake Uranium Mine

Type: precast segmental lining

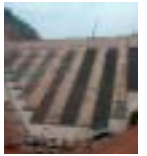
Location: Saskatchewan, Canada



Nam Ygum Dam

Type: hydraulic

Location: Laos



Kiruna Mine

Type: mining

Location: Kiruna, Sweden



Jurong Rock Cavern Phase 1

Type: shotcrete & cast ring beams

Location: Jurong Island, Singapore



Cayeli Copper Mine

Type: mining

Location: Rize, Turkey



Metrô São Paulo

Type: precast segmental lining

Location: São Paulo, Brazil



Jinping Hydropower

Type: hydraulic tunnel shotcrete

Location: Sichuan, China





Benefit from
our full service



“Continuous
innovation,
continuous
improvement”



1

For the concrete mix design, Bekaert takes into account all relevant standards, as well as the specific load bearing requirements of your tunnel project. This will result in a specific steel fibre dosage tailored to your project, which guarantees the most **economical and qualitative end result.**

2

Bekaert's Dramix® steel fibres are submitted to severe **quality control** according to international standards, including ISO 9001 and ISO 14001.

3

On top of the steel fibre quality control, dedicated tests for the entire steel fibre concrete mix are performed in the **Bekaert labs.**

4

Thanks to its worldwide network, Bekaert is able to offer **on-site support** virtually anywhere. Bekaert also offers dedicated dosing equipment, which allows contractors to save time and work with the highest precision.

5

Bekaert's **global experts** bundle many years of tunnel construction experience. They keep a close eye on the latest developments in the field and regularly contribute their knowledge and opinion to the experts' community.

ABOUT BEKAERT

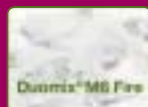
Bekaert is active worldwide in selected applications of its two core competences: advanced metal transformation and advanced materials and coatings. The combination of these competences makes Bekaert very unique. Bekaert, headquartered in Belgium, is a technological leader and serves a worldwide customer base in a variety of industry sectors.

BUILDING WITH BEKAERT

Bekaert products are widely used in the construction sector. Dramix® has given Bekaert a leading position in the market of steel fibre concrete reinforcement. In 1979, Bekaert introduced Dramix® steel fibres for concrete reinforcement, designed to offer an easy-to-use alternative for traditional steel mesh and bar reinforcement. Applications of Dramix® steel fibres include industrial floors, precast elements, tunneling and mining, residential applications and public works.

Other Bekaert building products

- Duomix® M6 Fire - fire resistance
- Synmix® - shrinkage and temporary reinforcement
- Armanet® FP - support for fire resistant protection
- Mesh Track® - road reinforcement



All mentioned trademarks are registered trademarks owned by NV Bekaert SA.

© 2010 Bekaert

NV Bekaert SA

Bekaertstraat 2 • BE-8550 Zwevegem • Belgium
www.bekaert.com/building • infobuilding@bekaert.com

Customer service:

T +32 56 76 61 10

F +32 56 76 79 47

Modifications reserved. All details describe our products and solutions in general form only. For ordering and design only use official specifications and documents.