

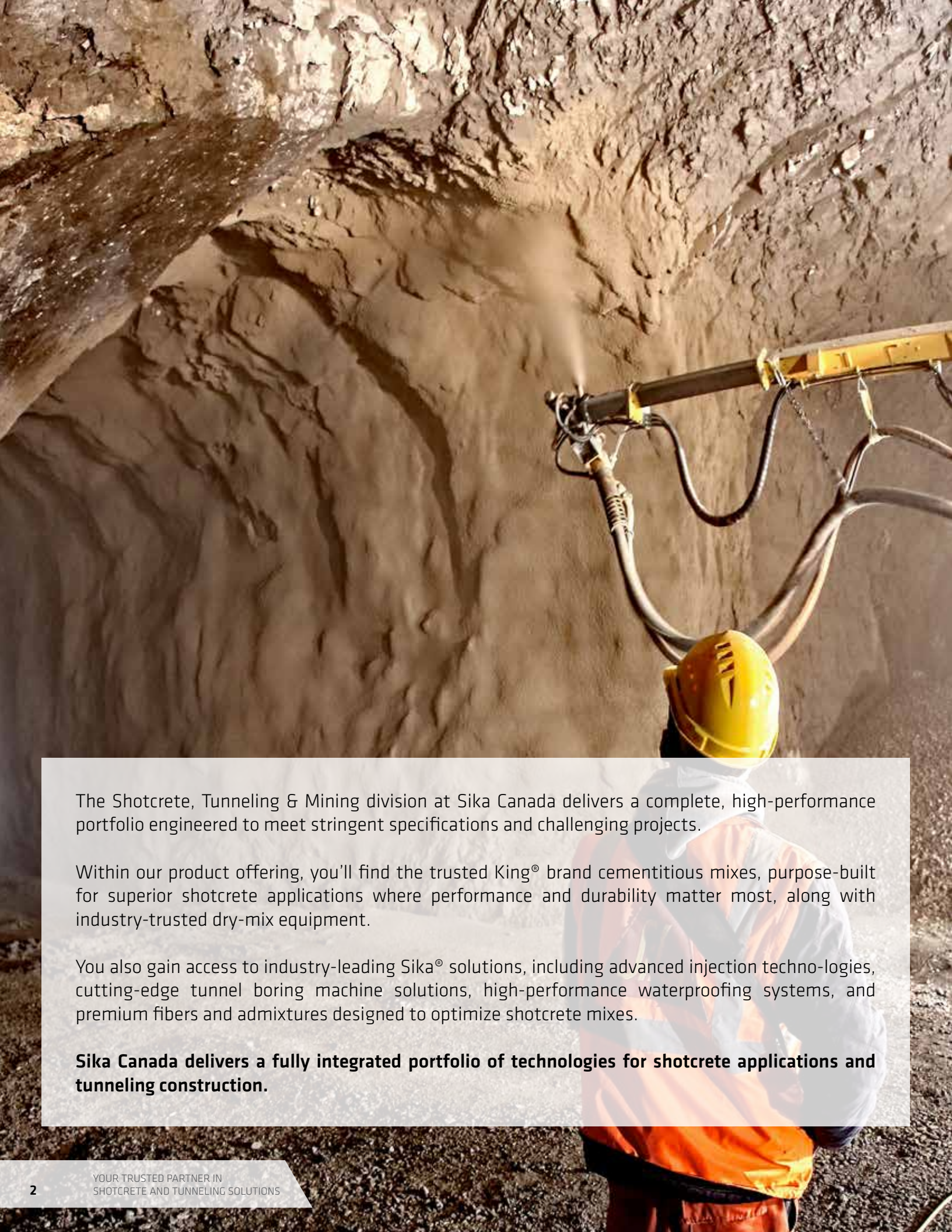


YOUR TRUSTED PARTNER
IN SHOTCRETE AND
TUNNELING SOLUTIONS

KING

BUILDING TRUST
CONSTRUIRE LA CONFIANCE





The Shotcrete, Tunneling & Mining division at Sika Canada delivers a complete, high-performance portfolio engineered to meet stringent specifications and challenging projects.

Within our product offering, you'll find the trusted King® brand cementitious mixes, purpose-built for superior shotcrete applications where performance and durability matter most, along with industry-trusted dry-mix equipment.

You also gain access to industry-leading Sika® solutions, including advanced injection technologies, cutting-edge tunnel boring machine solutions, high-performance waterproofing systems, and premium fibers and admixtures designed to optimize shotcrete mixes.

Sika Canada delivers a fully integrated portfolio of technologies for shotcrete applications and tunneling construction.

CONTENT

04 TBM Solutions

08 Waterproofing Solutions

10 Shotcrete Solutions

14 Injection Solutions

TBM SOLUTIONS

FOAMING AGENTS FOR SOIL CONDITIONING – EPB TBM

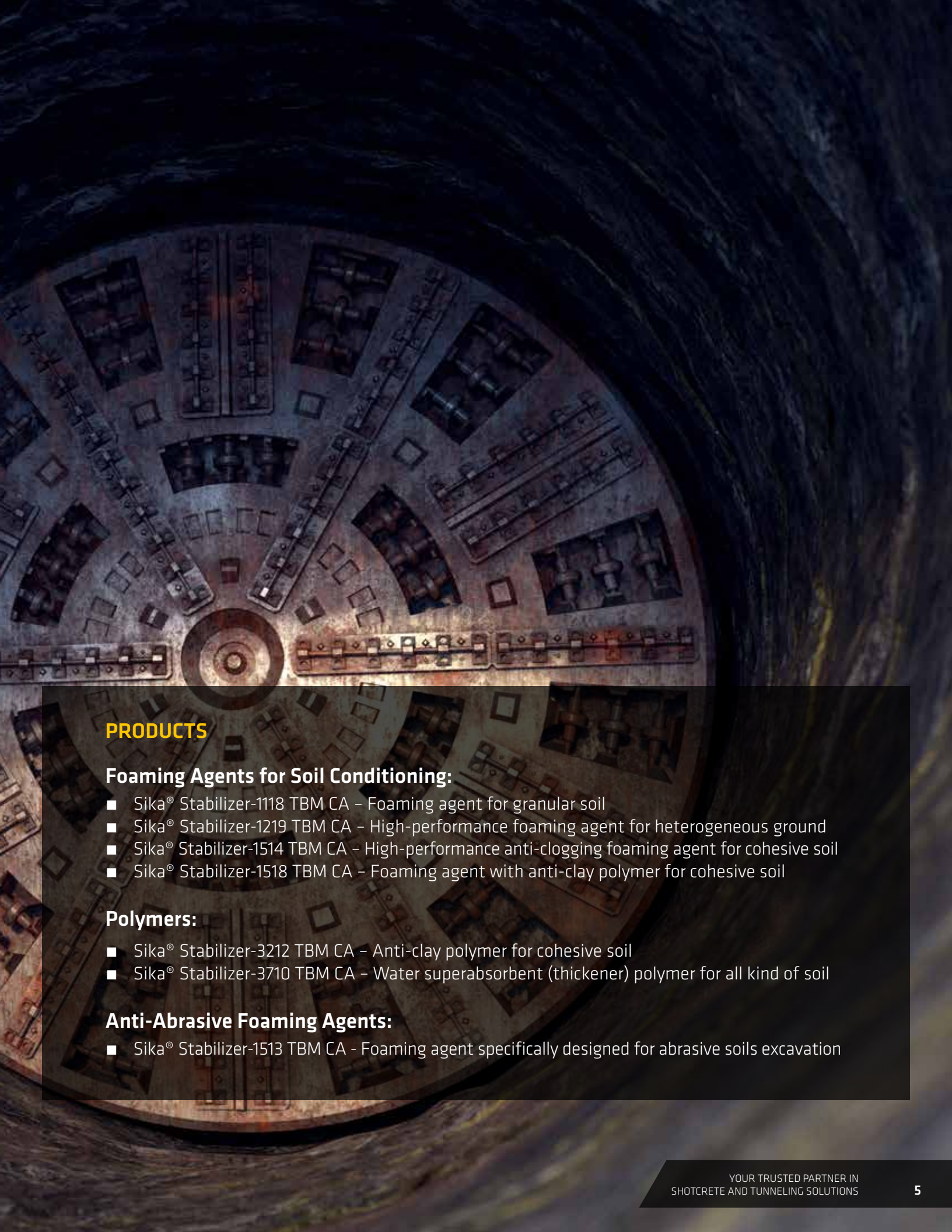
Effective use of foaming agents enhances TBM productivity and cost efficiency by ensuring consistent soil conditioning and reliable backlog control. Sika's foaming agents are engineered to deliver stable performance in all ground conditions, from simple open-mode tunneling without groundwater to complex mixed soils and high-pressure water environments.

POLYMERS – EPB TBM

For challenging geological conditions, Sika provides a full range of high-performance polymer solutions tailored to different ground types. Injected either alone or in combination with foaming agents, these polymers promote the formation of a homogeneous, stable, and easily conveyable conditioned material, while minimizing the risks of clogging, segregation, and pressure loss.

ANTI-ABRASIVE FOAMING AGENTS – HARD ROCK TBM

In hard rock TBM operations, tool wear and downtime significantly affect productivity and project budgets. Sika's anti-abrasive foams are developed to help prolong cutter service life and support better tunnel working conditions.



PRODUCTS

Foaming Agents for Soil Conditioning:

- Sika® Stabilizer-1118 TBM CA – Foaming agent for granular soil
- Sika® Stabilizer-1219 TBM CA – High-performance foaming agent for heterogeneous ground
- Sika® Stabilizer-1514 TBM CA – High-performance anti-clogging foaming agent for cohesive soil
- Sika® Stabilizer-1518 TBM CA – Foaming agent with anti-clay polymer for cohesive soil

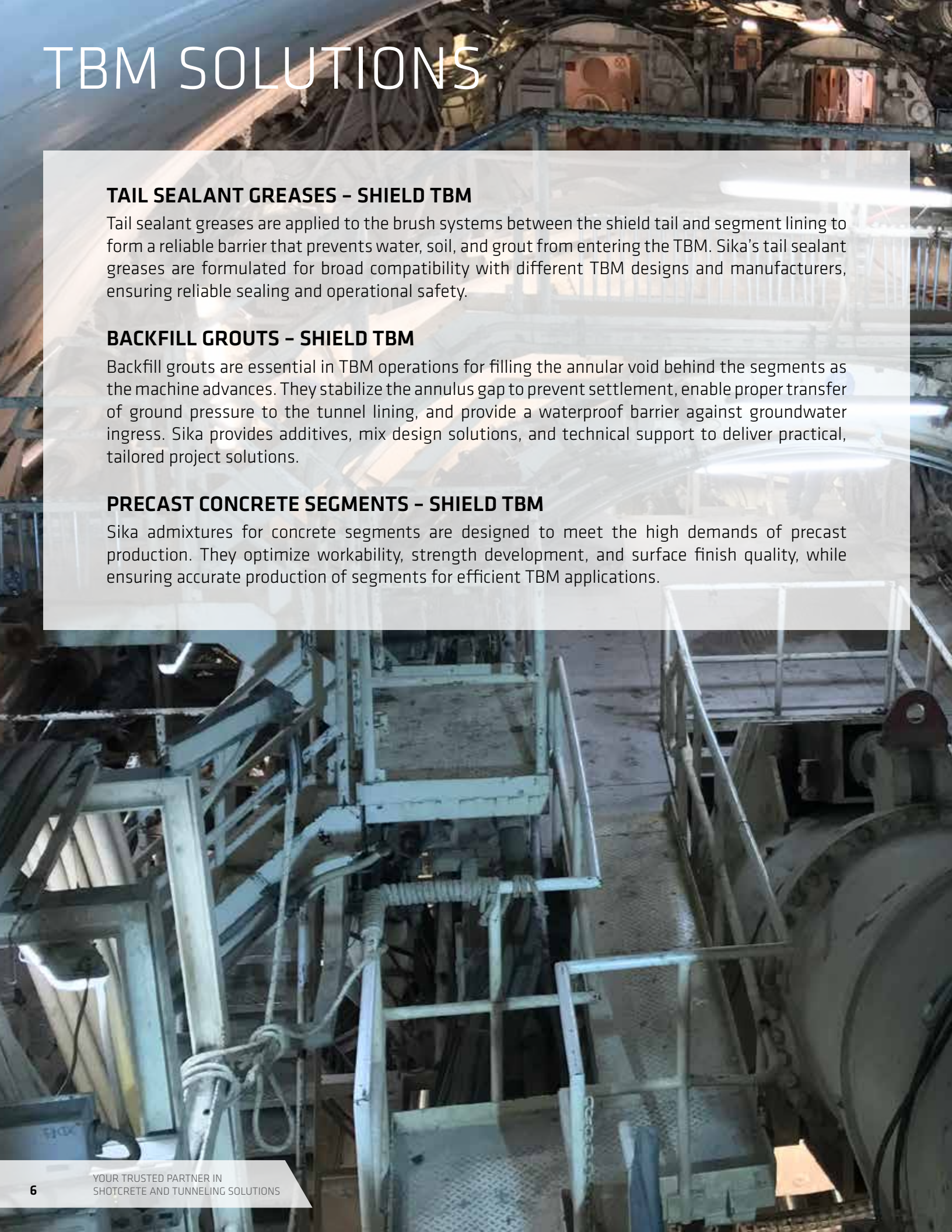
Polymers:

- Sika® Stabilizer-3212 TBM CA – Anti-clay polymer for cohesive soil
- Sika® Stabilizer-3710 TBM CA – Water superabsorbent (thickener) polymer for all kind of soil

Anti-Abrasive Foaming Agents:

- Sika® Stabilizer-1513 TBM CA – Foaming agent specifically designed for abrasive soils excavation

TBM SOLUTIONS



TAIL SEALANT GREASES - SHIELD TBM

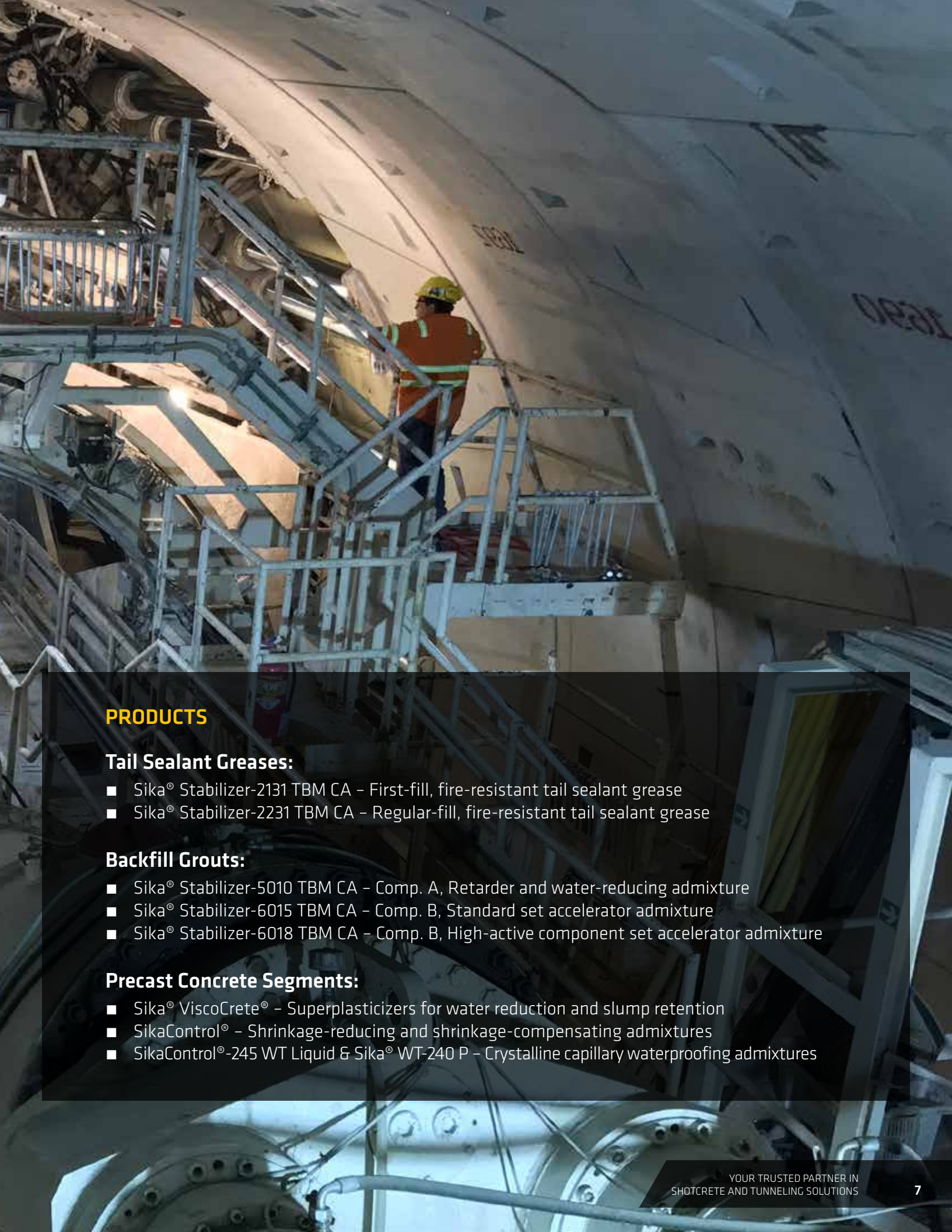
Tail sealant greases are applied to the brush systems between the shield tail and segment lining to form a reliable barrier that prevents water, soil, and grout from entering the TBM. Sika's tail sealant greases are formulated for broad compatibility with different TBM designs and manufacturers, ensuring reliable sealing and operational safety.

BACKFILL GROUTS - SHIELD TBM

Backfill grouts are essential in TBM operations for filling the annular void behind the segments as the machine advances. They stabilize the annulus gap to prevent settlement, enable proper transfer of ground pressure to the tunnel lining, and provide a waterproof barrier against groundwater ingress. Sika provides additives, mix design solutions, and technical support to deliver practical, tailored project solutions.

PRECAST CONCRETE SEGMENTS - SHIELD TBM

Sika admixtures for concrete segments are designed to meet the high demands of precast production. They optimize workability, strength development, and surface finish quality, while ensuring accurate production of segments for efficient TBM applications.



PRODUCTS

Tail Sealant Greases:

- Sika® Stabilizer-2131 TBM CA – First-fill, fire-resistant tail sealant grease
- Sika® Stabilizer-2231 TBM CA – Regular-fill, fire-resistant tail sealant grease

Backfill Grouts:

- Sika® Stabilizer-5010 TBM CA – Comp. A, Retarder and water-reducing admixture
- Sika® Stabilizer-6015 TBM CA – Comp. B, Standard set accelerator admixture
- Sika® Stabilizer-6018 TBM CA – Comp. B, High-active component set accelerator admixture

Precast Concrete Segments:

- Sika® ViscoCrete® – Superplasticizers for water reduction and slump retention
- SikaControl® – Shrinkage-reducing and shrinkage-compensating admixtures
- SikaControl®-245 WT Liquid & Sika® WT-240 P – Crystalline capillary waterproofing admixtures

WATERPROOFING SOLUTIONS

SIKAPLAN® TECHNOLOGY

Sikaplan® membranes are among Sika's most robust, versatile, and high-performance solutions for waterproofing underground structures, including shafts, cut-and-cover stations, and tunnels. Manufactured from high-quality PVC-P, they are installed using a loose-laid system and can be compartmentalized through an integrated injection system, providing redundancy, enhanced control, and long-term reliability. Sikaplan® membranes excel through their exceptional durability, high resistance to ageing, and proven performance over several decades in the most demanding underground environments.

SIKAPROOF® TECHNOLOGY

SikaProof® is a fully bonded waterproofing technology designed to provide long-lasting protection for concrete underground structures, both above and below ground. The TPO-based membrane incorporates a special polymer-modified cementitious layer that forms a continuous mechanical and chemical bond with freshly placed concrete. This full adhesion prevents any lateral water migration between the membrane and the structure, even in the event of a local puncture, ensuring a passive, durable, and self-protecting waterproofing system.

JOINT SOLUTIONS

To ensure complete and long-lasting waterproofing of the structure, complementary joint solutions must be integrated alongside Sikaplan® and SikaProof® systems. SikaSwell® hydrophilic waterstops, SikaFuko® injection hoses, and GreenStreak® waterstops are essential components that provide effective sealing of construction joints and maximize protection against water ingress.

PRODUCTS

Sikaplan® (PVC-P):

- Sikaplan® WP 1100 – 2.0 to 3.1 mm thick waterproofing membrane
- Sikaplan® WP Protection Sheet – Protection sheet
- Sikaplan® Geotextile – Cushion layer
- Sikaplan® WP Waterbar – Waterbar profile for compartmentalization
- Sikaplan® WP Control – Control tubes and injection sockets for compartment injection

SikaProof® (TPO):

- SikaProof® A+12 – 1.2 mm thick waterproofing membrane (pre- and post-application)
- SikaProof® A+20 – 2.0 mm thick waterproofing membrane (pre- and post-application)
- SikaProof® Tape A+ N – Adhesive tape for pre-application
- SikaProof® Adhesive-22 – Cementitious adhesive for post-application
- SikaProof® ExTape-100 – Adhesive tape for post-application

Joint Solutions:

- SikaSwell® – Hydrophilic profile and sealant
- SikaFuko® – Injection hose system
- Greenstreak® Waterstop – Flexible multi-ribbed PVC profile

SHOTCRETE SOLUTIONS

SETTING ACCELERATORS

Project requirements, particularly in underground construction, can be especially demanding. Applications often require shotcrete set accelerators capable of rapidly developing high compressive strengths to allow fast and safe excavation. Alkali-free set accelerators are frequently required to prevent the migration of alkalis into surrounding soils and groundwater. Sika provides a range of solutions designed to meet these requirements.

ADMIXTURES

Sika shotcrete admixtures are designed to maximize performance and efficiency on site. They provide a significant reduction in rebound and reliable mechanical performance, contributing to optimal, productive, and durable applications, even under the most demanding conditions.

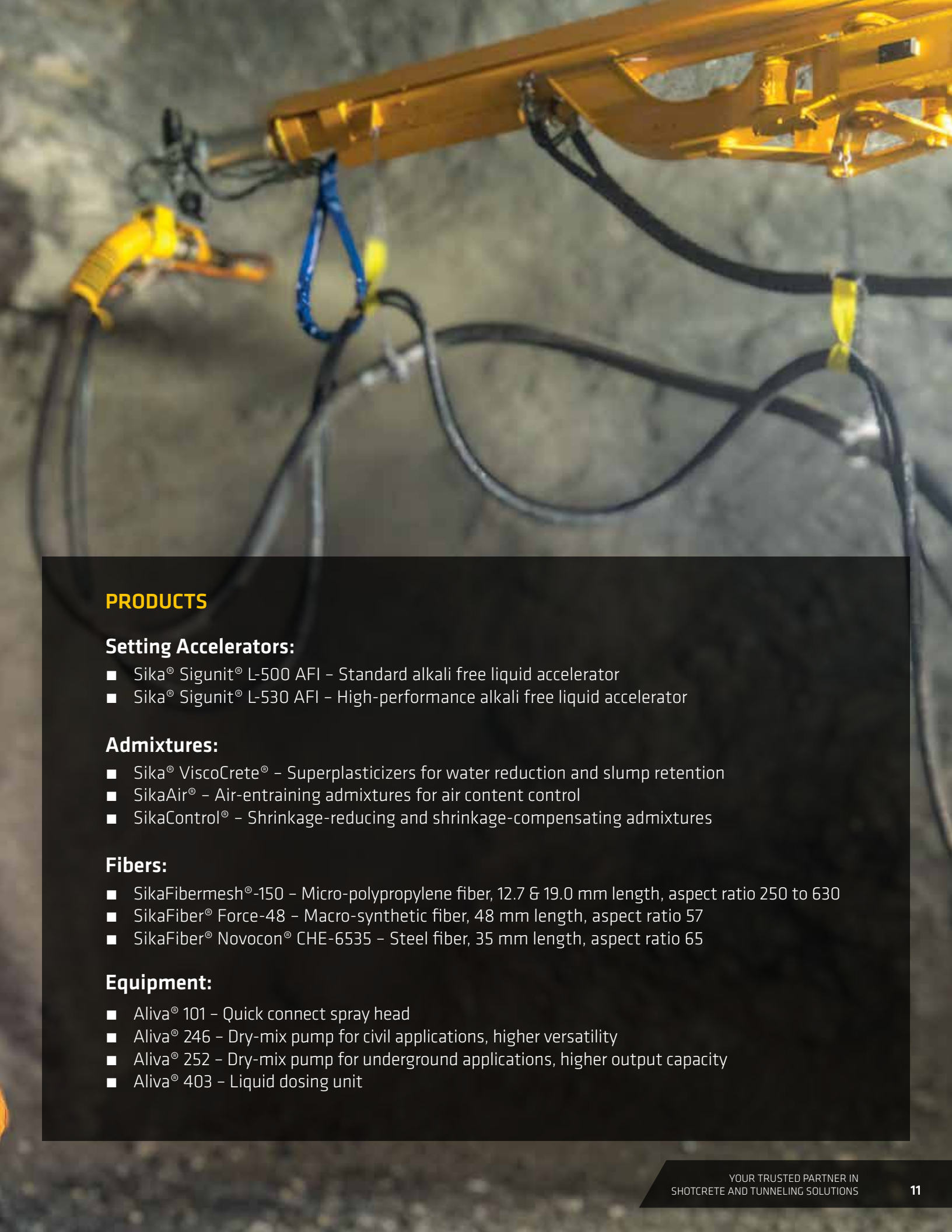
FIBERS

Sika develops advanced fiber solutions that strengthen and enhance the performance of shotcrete. Its range of synthetic and steel fibers improves crack control, energy absorption, and overall structural integrity, making them ideal for tunneling applications.

EQUIPMENT

Sika equipment includes the proven Aliva® machines for dry-mix shotcrete, recognized for their outstanding quality, functionality, and reliability. In addition, Sika also offers complementary equipment such as robotic spraying arm and setting accelerator dosing pump.





PRODUCTS

Setting Accelerators:

- Sika® Sigunit® L-500 AFI – Standard alkali free liquid accelerator
- Sika® Sigunit® L-530 AFI – High-performance alkali free liquid accelerator

Admixtures:

- Sika® ViscoCrete® – Superplasticizers for water reduction and slump retention
- SikaAir® – Air-entraining admixtures for air content control
- SikaControl® – Shrinkage-reducing and shrinkage-compensating admixtures

Fibers:

- SikaFibermesh®-150 – Micro-polypropylene fiber, 12.7 & 19.0 mm length, aspect ratio 250 to 630
- SikaFiber® Force-48 – Macro-synthetic fiber, 48 mm length, aspect ratio 57
- SikaFiber® Novocon® CHE-6535 – Steel fiber, 35 mm length, aspect ratio 65

Equipment:

- Aliva® 101 – Quick connect spray head
- Aliva® 246 – Dry-mix pump for civil applications, higher versatility
- Aliva® 252 – Dry-mix pump for underground applications, higher output capacity
- Aliva® 403 – Liquid dosing unit

SHOTCRETE SOLUTIONS

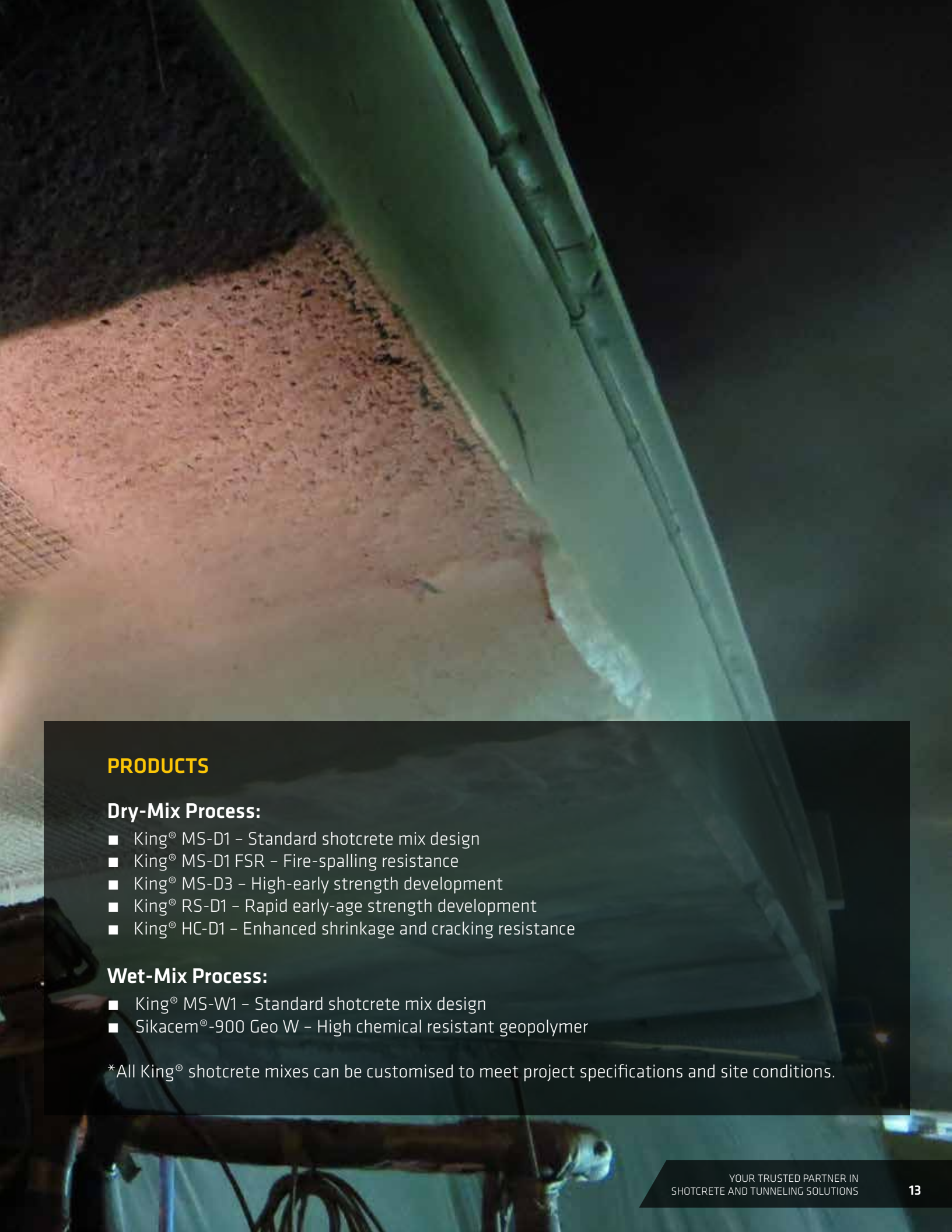
PRE-PACKAGED SHOTCRETE

Successful shotcrete work depends on several key parameters, including the selection of high quality raw materials to ensure a reliable mix design, as well as the use of an appropriate specialized pump operated by experienced, certified workers.

Thanks to its high-velocity pneumatic application process, shotcrete stands out for its high versatility and excellent mechanical and durability properties. Among its many advantages, shotcrete enables rapid execution with reduced labor demands, placement without formwork, excellent adhesion to the substrate, and a wide range of surface finishes and application thicknesses.

Sika Canada offers the most comprehensive and high-performing range of pre-packaged shotcrete solutions in the industry.





PRODUCTS

Dry-Mix Process:

- King® MS-D1 – Standard shotcrete mix design
- King® MS-D1 FSR – Fire-spalling resistance
- King® MS-D3 – High-early strength development
- King® RS-D1 – Rapid early-age strength development
- King® HC-D1 – Enhanced shrinkage and cracking resistance

Wet-Mix Process:

- King® MS-W1 – Standard shotcrete mix design
- Sikacem®-900 Geo W – High chemical resistant geopolymer

*All King® shotcrete mixes can be customised to meet project specifications and site conditions.

INJECTION SOLUTIONS

INJECTION TECHNOLOGIES

Injection is the process of pumping polyurethane-, acrylate-, epoxy-, silicate-, or cement-based materials into damaged structures or unconsolidated ground to stop water infiltration and restore long-term watertightness. Sika provides a comprehensive portfolio of high-performance injection materials and systems engineered for durable waterproofing, structural repair, and ground consolidation across a wide range of conditions.



PRODUCTS

Polyurethane-Foam:

- Sika® Injection-101 US – 2-C, fast foaming (~70 sec) and free expansion up to 40 times
- SikaFix® HH+ – 1-C, free expansion up to 30 times and adjustable reaction time with SikaFix® HH Accelerator
- SikaFix® HH LV – 1-C, low viscosity, free expansion up to 30 times and adjustable reaction time with SikaFix® HH Accelerator

Polyurethane-Resin:

- SikaInject®-201 DE – 2-C, highly flexible and adjustable reaction time with SikaInject® AC 20 DE accelerator
- SikaInject®-210 DE – 2-C, fast reaction time (~45 sec at 23°C) and high final strengths
- SikaInject®-216 DE – 2-C, structural and high mechanical properties

Acrylate:

- SikaInject®-215 – 3-C, fast adjustable reaction time (2-15 min)
- SikaInject®-304 DE – 3-C, fast adjustable reaction time (10-80 sec at 25°C) with optional polymeric strengthening compound (SikaInject®-315 PS)
- Sika® Injection-307 – 3-C, corrosion inhibitor properties and adjustable reaction time (5-50 min)
- Sika® Injection-310 US – 1-C, powder based

Epoxy:

- Sikadur®-52 – 2-C, multipurpose, high-strength epoxy resin

Silicate:

- SikaInject®-501 DE – 2-C, fast foaming (~45 sec at 23°C) and free expansion up to 35 times

Cementitious:

- King® MS Cable – High performance and shrinkage-compensated
- King® HS Cable – Superior early strength gain and shrinkage-compensated

SIKA - YOUR SINGLE SOURCE SUPPLIER

Roofing Systems



Concrete Production



Joint Sealing



Grouting and Anchoring



Concrete Repair & Protection



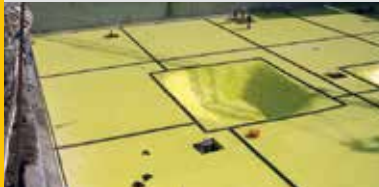
Structural Strengthening



Floor & Wall Systems



Waterproofing Systems



Masonry



Shotcrete



Tunneling



Mining



Sika Canada Inc., a member of the Sika Group, is a leader in the field of speciality chemicals for construction and manufacturing industries. Our product lines feature high quality roofing systems, concrete admixtures, mortars and resins, sealants and adhesives, structural strengthening components, industrial and decorative flooring, as well as protective coatings and waterproofing systems. Our expertise is borne out of a global presence and served by strong, local support. Sika has earned the trust of our customers for over 100 years, by delivering the highest standards of commitment and partnership.

*Our most current General Sales Conditions shall apply.
Please consult the most current local Product Data Sheet prior to any use.*

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