

MINOVA MINING SOLUTIONS.

RESIN CARTRIDGES · POLYURETHANES · SILICATES
CEMENTITIOUS PRODUCTS · BOLTS & ACCESSORIES · PUMPS · SERVICES

SECURING MINING. TOGETHER.

Minova is a global manufacturer of steel bolts and anchors, resins, grouts and coatings which provide vital ground support to the mining sector.

MINOVA USA

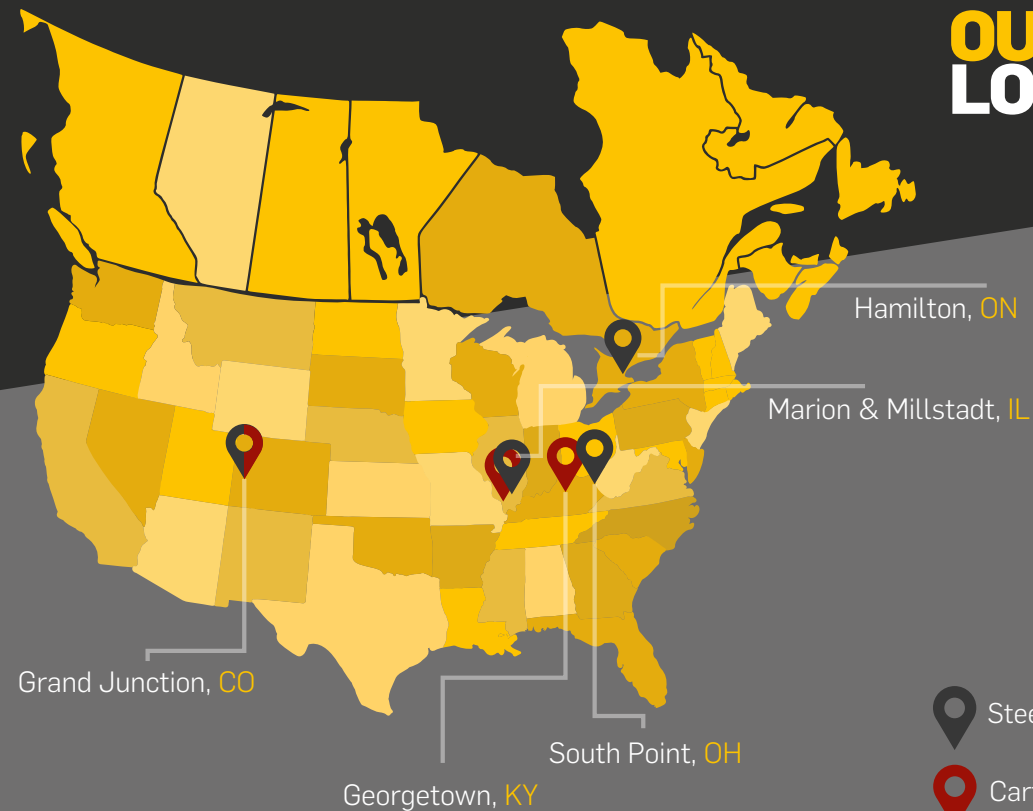
We provide products widely used in hard rock and coal mining. We support the Americas region across USA, Canada, Mexico and LATAM.



Minova has over 135 years experience developing and delivering innovative, high quality products, technical expertise and problem solving. This is a heritage we are proud of and continue to build on.

OUR SOLUTIONS



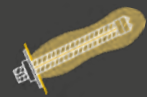


- ▶ WATER STOPPING
- ▶ SHOTCRETING
- ▶ CRACK & VOID FILLING
- ▶ ROCK BOLTING & ANCHORING
- ▶ PRODUCT APPLICATION

OUR LOCATIONS.



-  Steel Plant
-  Cartridge resin & chemical plant

WHAT CAN OUR PRODUCTS DO FOR YOU?

- 1 STOP WATER & GAS INGRESS**
 Wide range of specially formulated products to stop water and gas ingress
 
- 2 FILL VOIDS & CRACKS**
 Minova high foaming grouts and resins are used to fill cracks, cavities and voids
 
- 3 BOLT ANCHORING**
 Our bolts are used with our resin and powder grouts to provide critical support
 
- 4 CONSOLIDATE AND STABILISE GROUND**
 Grouts and resins to achieve ultimate ground consolidation and stabilisation
 
- 5 SPRAYED CEMENT MEMBRANES**
 Minova supplies a broad range of wet and dry sprayed products, which function as structural or waterproofing membranes and coatings.
 



OUR PRODUCTS.



RESIN CARTRIDGES

We are a pioneer of capsule grout technology, including our globally renowned Lokset® polyester cartridges. We offer a wide range of cartridges to suit your anchoring requirements.



INJECTION RESINS

From ultra-foaming to high strength and fast setting, our injection chemicals anchor, consolidate and control gases, water and strata in all types of ground conditions.



CEMENTITIOUS

Our range of specialist powder solutions are used for structural and water-proofing coatings, void filling and anchoring.



BOLTS & ACCESSORIES

We offer a comprehensive range of steel and GFRP products that control and stabilize soil and rock.



PUMPS & EQUIPMENT

Minova offers a wide portfolio of injection, grout and shotcrete pumps which are compatible with our products.

PRODUCTS BY APPLICATION.

PRODUCT FAMILY	PRODUCT NAME	ANCHORING	GROUND CONSOLIDATION & STABILISATION	ROCK CONSOLIDATION	CAVITY FILLING	CRACK REPAIR	GAS OR WATER CONTROL	WATER INGRESS	STRUCTURAL SUPPORT
RESIN CARTRIDGES	Lokset®	●							
ONE COMPONENT POLYURETHANES	CarboStop 102		●				●		
TWO COMPONENT POLYURETHANES	CarboPur WS		●			●	●		
	CarboPur WFA		●				●	●	
TWO COMPONENT SILICATES	GeoFlex	●	●	●		●			
	CarboThix	●	●	●		●			
	GeoFoam		●		●		●		
PUMPABLE GROUTS	TekCrib		●						●
	TekSeal				●				
	Celbex 653				●		●		●
SPRAYED MEMBRANES AND COATINGS	Tekflex		●				●		●
	Tekflex Dry Spray		●				●		●
	Tekflex PM		●	●					●
	Tekcrete Fast / Fast M		●	●					●
	Tekcrete Pro		●	●					●
	Tekcrete Pro 1500		●	●					
BOLTS	Continuous Threadbar	●							
	Expandable (EXRB) Bolts	●							
	Friction Bolts	●							
	Self Drilling Anchors	●							
	GFRP Bolts	●							

PRODUCT DETAILS.

OUR VERSATILE PORTFOLIO ALLOWS YOU TO CHOOSE THE MOST SUITABLE PRODUCTS FOR YOUR UNDERGROUND MINING OPERATIONS.

PRODUCT NAME	PRODUCT CHARACTERISTICS	PRODUCT APPLICATION
LOKSET®	<ul style="list-style-type: none"> Reinforced polyester resin and catalyst Upon mixing the two components undergo a chemical reaction and set rapidly 	<ul style="list-style-type: none"> Used for simplified anchoring/grouting Eliminates need for injection equipment
CARBOSTOP 102	<ul style="list-style-type: none"> Water-reactive, one-component polyurethane resin Solvent and CFC-free Ultra-low viscosity CarboStop 102 ACC accelerator added to control reaction times as required 	<ul style="list-style-type: none"> Stopping water inflow (also salt water) Stabilisation and water sealing of loose rock Grouting of fine to medium-fine grained sands and gravel Fixing of anchors & injection of cracks
CARBOPUR WFA	<ul style="list-style-type: none"> Extremely fast reacting two-component polyurethane injection resin Foams in the presence of water Hardens unfoamed when water is not present 	<ul style="list-style-type: none"> Seals strong water ingress, e.g. construction pits, pipelines, shafts, and tunnels
CARBOPUR WS	<ul style="list-style-type: none"> Fast reacting two-component polyurethane injection resin Foams in the presence of water Hardens unfoamed when water is not present 	<ul style="list-style-type: none"> Curtain injection in tunnels, dams, or on shaft walls Seals against water Stabilises, consolidates and repairs of cracks and/or fissures
GEOFLEX	<ul style="list-style-type: none"> Non-expanding, elasticized two-component silicate resin Good adhesion even on moist surfaces Cured resin is resistant to acid, brine, and saline solutions as well as many organic solvents 	<ul style="list-style-type: none"> Consolidation of unstable areas in tunnelling Bonding of injection bolts e.g. SDA/Hollow bar steel bolts or FiReP GFRP bolts Can be applied in fine cracks (fractions of millimetres)
CARBOTHIX	<ul style="list-style-type: none"> Very fast curing two-component silicate resin Immediate loading capacity Full encapsulation of anchors 	<ul style="list-style-type: none"> Grouting of injection bolts Anchoring steel and GFRP bolt
GEOFOAM	<ul style="list-style-type: none"> Two-component silicate resin Rapidly reacting and strongly expanding High foaming factor Injection against water flow possible 	<ul style="list-style-type: none"> Used for both strata injection and cavity filling Immediate stabilisation via strata injection or cavity filling applications
TEKCRIB	<ul style="list-style-type: none"> Roof support system requiring minimal installation time Non-combustible, simple Cementitious foam Gelling within minutes 	<ul style="list-style-type: none"> Ground control Standing support
TEKSEAL	<ul style="list-style-type: none"> Cement-based non-flammable chemical grout product that forms a low-density foam when mixed with water Begins to gel in minutes Non-toxic Non-combustible product 	<ul style="list-style-type: none"> Can be used for general void filling behind tunnel linings and the construction of lightweight barriers, bulkheads and stoppings
CELBEX 653	<ul style="list-style-type: none"> Thixotropic stabilizer for cement grouts Enables cement grouts to be used in moving water conditions 	<ul style="list-style-type: none"> Ideal for stabilizing cement grouts and cement grout blends Used for pumping into cavities or fissures subject to water flow Grouting secondary tunnel cavities

PRODUCT NAME	PRODUCT CHARACTERISTICS	PRODUCT APPLICATION
TEKFLEX	<ul style="list-style-type: none"> Excellent tensile strength with high flexibility maintains coating integrity Excellent adhesion to rock surface assures long life coating Easily applied using standard equipment Non-toxic and non-flammable No unusual storage or ventilation requirements during application, clean up or waste disposal 	<ul style="list-style-type: none"> Patented high tensile strength sealant coating specially designed to permanently stabilize the integrity of rock structures accommodating the stresses associated with strata movement while providing a barrier to moisture degradation
TEKFLEX DRY SPRAY	<ul style="list-style-type: none"> Cement-based spray material designed with superb flexibility, high tensile strength and excellent adhesive qualities 	<ul style="list-style-type: none"> Enhances the structural integrity of the rock and forms an impervious barrier, which eliminates the degrading effects of weathering
TEKFLEX PM	<ul style="list-style-type: none"> Non-shrinking cement that dries to a durable off-white finish Contains polymer latex for superior adhesion 	<ul style="list-style-type: none"> Suited for large remediation or preventative sealing projects
TEKCRETE FAST / FAST M	<ul style="list-style-type: none"> Ultra-rapid hardening, high performance dry process shotcrete Structural strength achieved in a few minutes The high modulus polymer fibers are safer to handle than steel or fiberglass fibers Superior adhesion and rapid rate of strength gain allows high build 	<ul style="list-style-type: none"> Emergency application of structural support For use in conventional, dry-process shotcrete equipment
TEKCRETE PRO	<ul style="list-style-type: none"> Blend of micro-silica enhanced cement and carefully graded aggregates resulting in a high build, dense, low absorption shotcrete mortar 	<ul style="list-style-type: none"> Ideal for large vertical and overhead structural repairs where a reliable dry process shotcrete or gunite is required Tunnel linings, bridge and parking structures, supporting columns and beams, seawalls, dams
TEKCRETE PRO 1500	<ul style="list-style-type: none"> Blend of special cements, additives and carefully graded aggregates resulting in a fast hardening, high strength, 8500 psi, high build, dense, low absorption gunite 	<ul style="list-style-type: none"> Ideal for large vertical and overhead structural repairs where a rapid hardening product is needed
CONTINUOUS THREADBAR	<ul style="list-style-type: none"> Works much like Tension Rebar Bolts, but with the added benefit of being threaded the entire length of the bar, allowing for more versatility if ground conditions change 	<ul style="list-style-type: none"> Anchoring
EXPANDABLE (EXRB) BOLTS	<ul style="list-style-type: none"> Consists of a folded steel tube with upper bushing and inflation bushing welded at each end of the tube. A specially designed adjustable face plate is delivered as an option. 	<ul style="list-style-type: none"> Anchoring
FRICTION BOLTS	<ul style="list-style-type: none"> Minova's Friction Bolt is manufactured from high-strength steel and in accordance with ASTM F432-13, where applicable. For increased protection against corrosion, the Friction Bolt can be galvanized 	<ul style="list-style-type: none"> Anchoring
SELF DRILLING ANCHORS	<ul style="list-style-type: none"> The system features a hollow bar, which is used as a drill string for drilling and anchored with Minova resin or grout solutions 	<ul style="list-style-type: none"> Anchoring Micropiling Soil and rock nailing
GFRP BOLTS	<ul style="list-style-type: none"> Ideal alternative to steel products where there is a high presence of aggressive water in the ground and/or there is a requirement for cutting post-installation e.g. TBM 	<ul style="list-style-type: none"> Anchoring Structural repair and reinforcement

OUR PUMPS & EQUIPMENT.

Our partnership with REED pumps, and work with other equipment manufacturers, coupled with a full suite of materials, allows Minova to complete your project successfully.

INJECTION RESIN PUMPS

Minova distributes a variety of pneumatically- and electrically-driven injection pumps.

They are ideal for injection work including water sealing, crack repair, consolidation and other applications in underground mining projects.

GROUT PUMPS

Tekplacer pump units are compatible with our TekRok products, metering and mixing the correct amount of water and powder to provide you with the perfect grout mix ratio.

SHOTCRETE PUMPS AND ACCESSORIES

Minova has partnered with Reed Pumps to provide state-of-the-art pumping products and services to the mining sector.

Based in Chino, California, Reed Pumps have been manufactured since 1957.

Minova sells and leases Reed's products, including:

- A Series "Rockmaster" trailer mounted concrete pumps
- B Series heavy-duty concrete & shotcrete pumps
- Lova "Guncrete" gunite machines
- Sova "Guncrete" gunite machines

FIELD SERVICES.

Our skilled and experienced field technicians are there with you every step of your mining project.

FIELD SERVICES

Alongside our ground control products, our Field Services team offers you technical and hands-on support.

SHOTCRETE SPRAYING AND TRAINING

Our ASA (American Shotcrete Association) certified installers evaluate each project to match the shotcrete material with the correct equipment and application method. We provide on-site training of personnel and can also undertake the installation.

Minova USA hosts ASA training and certification classes, sharing our expertise on how to complete the job correctly reducing your installation time, dust exposure, and providing a better finished product.

RESIN INJECTION SERVICES

Our injections specialists are available to assist with the right choice of Minova injection resin products and ensure proper installation to help with your waterstopping, ground consolidation or cavity and void filling project requirements.



SECURING PERFORMANCE. TOGETHER.

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