



**POLYMER GROUP LTD**

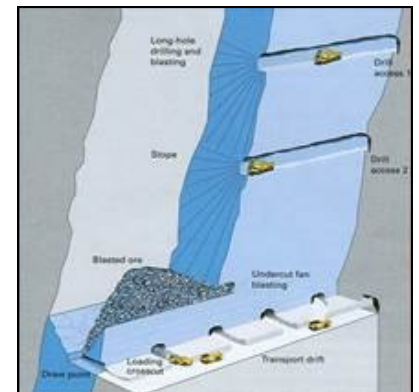
# Mining Industry

ReZolution Mining Polymers is a supplier of high performance strata stabilization injection materials specifically formulated for use in mining, construction and geothermal applications.

The ReZolution range comprises a series of products which provide strata stabilization for conditions typically encountered in tunneling, drilling and mining environments.



- **ReZolution Strata Bond**—to rapidly stabilize strata and coal by imparting structural strength and flexibility.
- **ReZolution Ground Bond**—for filling and stabilizing cavities in coal seams and fractured rock, eg roadways, shafts etc.
- **ReZolution Aqua Stop**—for high water volume control, filling and stabilizing cavities in fractured rock, consolidating other substrates such as sand and gravel, and for concrete structure repair.
- **ReZolution CF Foam**—for filling and stabilizing cavities in coal seams and fractured rock, and consolidating other substrates such as sand and gravel.
- **ReZolution Bolt Hold**—fire resistant, grease-like consistency to prevent leakage and will seal against water inflow.



## Description

**ReZolution Strata Bond** is a fire resistant injection system based on urea silicate technology. It is designed to rapidly stabilize strata and coal by imparting structural strength and flexibility. In addition to being fire resistant due to its unique silicate chemistry, the maximum exotherm reached during curing is well under the maximum allowed. **ReZolution Strata bond** can be used in wet environments where it shows good adhesion to wet surfaces, but will not absorb water.

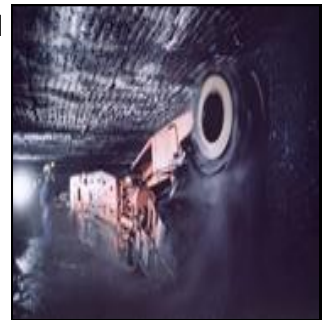


## Uses

- Rapid stabilization and strengthening strata and coal
- Rapid consolidation of other substrates such as sand, gravel, fractured road rock etc.

## Features

- Fire resistant
- Very fast reactivity with structural strength and resiliency
- Same reaction and cured properties in dry or underwater situations
- Penetrates cracks greater than 0.15mm



# ReZolution Ground Bond

## Description

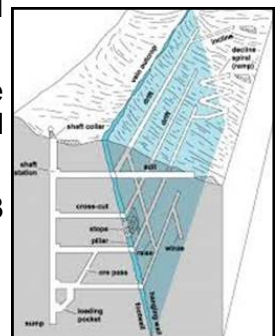
**ReZolution Ground Bond** is a highly reactive, solvent free, hydrophobic, 2-component, high strength polyurethane foam injection system. It is rapid setting and has a foam expansion factor of 3, making this an ideal product for rapid ground and strata stabilization. The system contains fire retardants and is self-extinguishing.

## Uses

- Filling and stabilizing cavities in coal seams
- Filling and stabilizing cavities in fractured rock eg roadways, shafts etc
- Consolidating other substrates such as sand and gravel
- Sealing gas and semi-static water

## Features

- A fast reacting polymer with strength and resiliency
- Utilizes foaming agents with Zero ODP (Ozone Depleting Potential) and Zero GWP (Global Warming Potential)
- It is a two component system, with both components mixed in equal volume proportions (1:1 by volume) using a two-component injection pump coupled with a static in-line mixer
- Foam expansion of 3 times without reaction with ground water, and up to 8 times when in contact with and mixing with water.
- Will penetrate cracks greater than 0.15mm



## Description

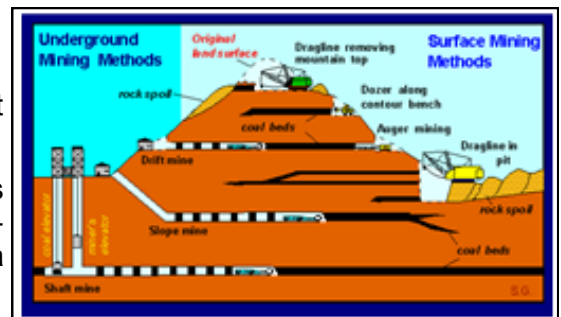
**ReZolution Aqua Stop** is solvent free, 2-component, high strength polyurethane injection system. It is rapid setting designed as a water stop and also for ground and strata consolidation. The system contains fire retardants and is self-extinguishing.

## Uses

- High water volume control
- Filling and stabilizing cavities in fractured rock eg roadways, shafts etc
- Consolidating other substrates such as sand and gravel
- Concrete structure repair

## Features

- A fast reacting polymer with strength and rigidity
- Will form a rigid foam in the presence of water
- Without water, the polymer cures to a tough, resilient solid
- It is a two-component system, with both components mixed in equal volume proportions (1:1 by volume) using a two-component injection pump coupled with a static in-line mixer



# ReZolution CF Foam

## Description

**ReZolution CF Foam** is an economical (low density) **cavity filling** foam based on polyurea silicate chemistry. Its rapid foaming and flame resistance characteristics make this an ideal product to fill voids in coal seams and fractured strata. The maximum exotherm reached during foaming is only 90°C, well under the accepted level for use in coal mines. **ReZolution CF Foam** can be used in wet environments where it shows good adhesion to wet surfaces and will not absorb water.

## Uses

- Filling and stabilizing cavities in coal seams
- Filling and stabilizing cavities in fractured rock
- Consolidating other substrate such as sand and gravel

## Features

**ReZolution CF Foam** is a two component system, with both components mixed in equal volume proportions (1:1 by volume) using a two-component injection pump coupled with a static in-line mixer head.





# ReZolution Bolt Hold



## Description

**ReZolution Bolt Hold** is a fire resistant, instant thickening, rapid setting injection system based on urea silicate technology. It is designed to structurally grout/set bolts and bars into rock strata.

## Features

- Fire resistant
- Forms a grease like consistency when injected to prevent leakage
- Economical—no waste as with sausage type bolt anchor systems
- Easy to apply
- Very slight (2-3%) expansion on setting adds superior bolt lock strength
- Will also seal against water inflow



**ReZolution bolt Hold** is a two component system, with both components mixed in equal volume proportions (1:1 by volume) using a two-component injection pump coupled with a static in-line mixer head.

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***SOLUTIONS FOR EXTREME  
ENVIRONMENTS***

## REZOLUTION MINING POLYMERS

### *Excellence in subterranean chemistry*

ReZolution Mining Polymers was established in 2013 with the goal of developing a high-performance range of mining industry strata reinforcing and strata control materials.

The technical group associated with ReZolution Mining Polymers comprises research and development chemists, experienced mining industry personnel, together with construction industry applicators.

ReZolution Mining Polymers Ltd is looking for world-wide representation through regional distributors who are experienced in supply to construction (tunneling and related infrastructure activities), mining material suppliers and geothermal/ground control professionals and contractors.

