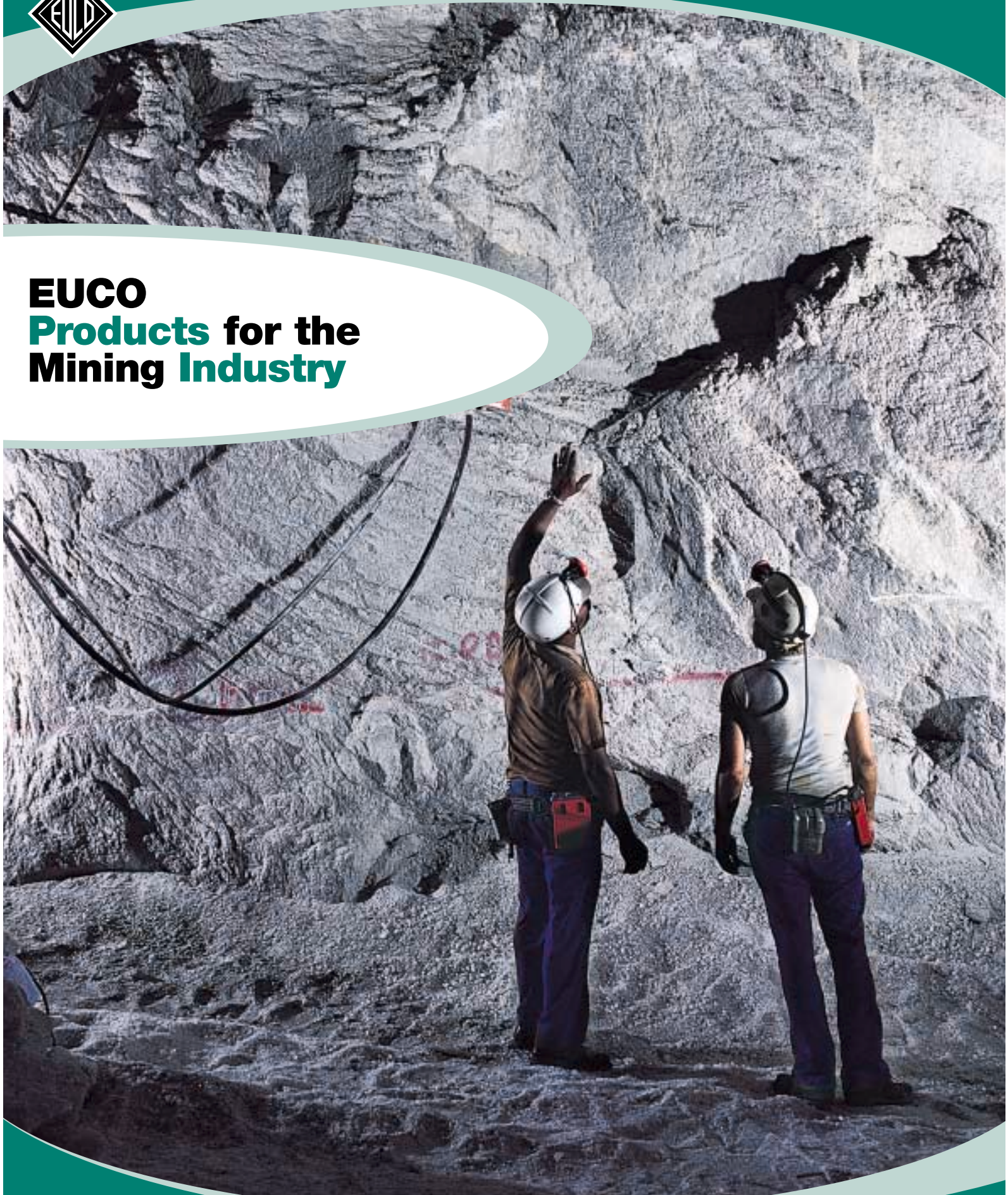




EUCO **Products for the** **Mining Industry**





EUCO Mine Backfill Solutions

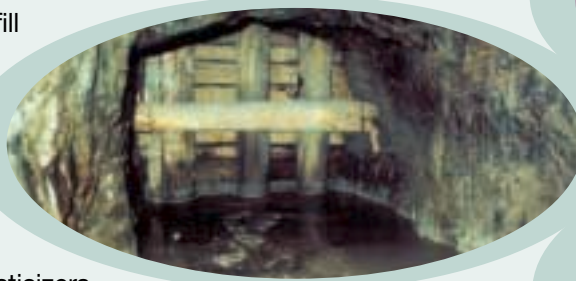
The use of admixtures in backfill mixes can often offer significant improvements in mine backfill properties, in the areas of set control, flow and strength improvements

The Euclid Chemical Company has been manufacturing admixtures since 1910. The Underground Division of The Euclid Chemical Company offers a full line of admixtures to improve backfill properties.



Admixtures for Mine Backfill

The new EUCO-FILL line of admixtures are formulated to offer the maximum improvements to backfill mixes. Available admixtures include accelerators for all types of fills, set stabilizers for rock and paste fills, water reducers and superplasticizers to enhance flow properties and to provide superior compressive strengths.



The EUCO-Fill line of products also includes anti-washout admixtures and foaming agents.

Compressive Strength Improvement

Admixtures can offer significant compressive strength increases in all types of backfill operations, especially in rockfill and paste backfill mixes, while offering other improvements to the fill properties. Most of these strength increases allow a reduction in the amount of binder used in the mix. In many cases the cement reduction more than offsets the cost of the admixture, resulting in a better final product at lower cost.

Knowledgeable Support

The Euclid Chemical Company has the expertise to provide assistance in selecting products for use in specific backfill applications. Assistance is also available for laboratory and field testing of backfill mixes with Euclid products.

All Euclid backfill admixtures are VOC compliant for a safer environment.

Contact your Euclid Chemical representative for product recommendations.

Shotcrete Solutions

The EUCOSHOT line of products consists of admixtures for use in both wet and dry shotcrete applications and includes the TUF-STRAND SF™ structural fibers.

Wet & Dry Shotcrete

Wet shotcrete admixtures include a set stabilizer for long transport times and high ambient temperatures that are encountered in many mining operations, superplasticizing admixtures to aid the pumping of the mix and both conventional and alkali-free accelerators.

- **EUCOSHOT MSA** – a ready to use powdered microsilica (silica fume) product for use in wet or dry shotcrete mixes. Microsilica significantly enhances strength and durability and reduces the permeability of shotcrete mixes. It is specified in most mix designs.

- **EUCOSHOT** – a microsilica modified, shotcrete material that can be supplied in 50lb or 2,000lb bags. It can be supplied with optional micro-fibers and/or accelerator.

- **EUCOSHOT D-A** – a dry, multipurpose admixture designed to accelerate the normal setting rate of shotcrete, increase strength development at all ages and improve workability.



Tuf-Strand SF™ Fibers

TUF-STRAND SF™ synthetic structural fibers are a patented, coarse monofilament, self-fibrilating polypropylene/polyethylene blend successfully used to replace welded wire mesh and steel fibers in a wide variety of applications. TUF-Strand SF fibers are designed to provide shotcrete with increased flexural toughness, impact and fatigue resistance with the added benefit of superior plastic shrinkage cracking control.



- **EUCOSLIP VOX** – a releasing agent that can be used to simplify cleanup of shotcreting equipment. It is also excellent for releasing shotcrete samples from molds. EUCOSLIP VOX is suitable for use with steel, wood, aluminum, fiberglass and PVC.

- **PUMPTEC “B”** – a line slicking compound to provide lubrication to piping and hoses in shotcrete pumping applications. It is available in powder or in liquid form.

Flow Enhancement

- **EUCOSHOT SP** – a superplasticizing admixture that greatly increases the slump of a shotcrete mix without the addition of any water, to aid gravity flow and pumping of the mix. EUCOSHOT SP will also help to minimize the segregation of the mix when it is poured through long boreholes.

- **EUCOSHOT IL** – an internal lubricant that will ease the movement of cement and aggregate particles within the mix to aid the pumping and flow processes. Although the rheological properties of the mix will change, the slump will not. Addition of EUCOSHOT IL will also lessen

Set Control

- **EUCOSHOT S** – a stabilizer that is added during mixing of the shotcrete, is used to hold off the initial set of the shotcrete mix until it is reactivated by an accelerator.

- **EUCON SURESHOT** – a liquid, high performance accelerator specifically engineered to give high early and ultimate compressive strengths in shotcrete applications.

- **EUCON SURESHOT AF** – a liquid, high performance, alkali-free shotcrete accelerator.



Grouts

The Euclid Chemical Company manufactures a variety of packaged, cementitious grouts for use in the mining and tunneling industries as well as an epoxy injection resin.

Related EUCO Products

A range of other products for the mining industry are offered by the Euclid Underground division:

SUPER EUCO TOP – a metallic floor topping, ore pass lining

DIAMOND-PLATE – a dry shake hardener for shop and shaft station floors is non-oxidizing and light-reflective

EUCO SPEED MP – very rapid hardening magnesium phosphate cement

EUCO DUST-down – an environmentally safe, low odor roadway dust control agent that helps to bind roadway aggregate

EUCO Support Team

The sales, technical and management staff of The Euclid Chemical Company are committed to ensuring the performance of our products and the satisfaction of our customers. Euclid is ISO 9000 certified to help ensure the consistent quality of our products.

Through a wide network of expertise, on-staff and from outside sources, The Euclid Chemical Company is prepared to work with mining companies to bring them the products required to improve efficiency and reduce costs.

For complete information on EUCO Underground products, contact the Euclid Chemical Company, Underground Division.



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The Euclid Chemical Company, Underground Division, is a worldwide supplier of quality products for the mining and tunneling industries. Marketed under the EUCO name, we offer a full line of products for shotcrete, backfill, grout and other products based on the latest technologies. We provide specification assistance and laboratory support as well as on-site service for guidance on proper product usage. EUCO materials are warehoused throughout the Americas and are available world-wide through international affiliates



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