

Copper Mine Transportation Corridor Project



Mine tailings used as foundation of access road



Germination 5 days after installation



Dense vegetation 2 months after installation

Situation

During construction of a new copper mine, the owners were faced with the daunting task of establishing vegetation on slopes overlain by fragmented rock waste from mining operations.

The rock waste material lacked organic matter and vital nutrients to sustain growth. The site also required a solution for erosion control that would not pose any environmental impacts.

Profile® Products offered a solution to meet both requirements; ProGanics® Biotic Soil Media™ and Flexterra® HP-FGM™.

Challenges

- Potential for high erosion due to torrential tropical rains
- 35.4 km long roadway development (22 miles)
- Alkaline substrate (pH = 7.5) lacked organic matter

Solution & Application

- Soil test performed to determine the nutrient value at the site
- Seed variety: *Brachiaria decumbens* (signal grass)
- Fertilizer (15-15-15)
- JumpStart™ at 23 L/Ha (2.5 gal/acre)
- Aqua-pHix™ at 23 L/Ha (2.5 gal/acre)
- ProGanics® BSM™ at 5,500 Kg/Ha (4,900 lbs/acre)
- Flexterra® HP-FGM™ at 5,000 Kg/Ha (4,500 lbs/acre)

Results

In just five days after installation, vegetation emerged. Within two months, a dense stand of grass was fully established. Subsequent site visits have confirmed a sustainable vegetative cover in the second year of growth.

ProGanics demonstrated the ability to provide crucial organic material and sufficient nutrients to the rock face, while Flexterra provided the needed protection from rainfall erosion, so that the seed could establish a solid root structure on the slope.



For help on your next project site, contact Profile® Sales Support at 800-508-8681 or Technical Services at tech@profileproducts.com.

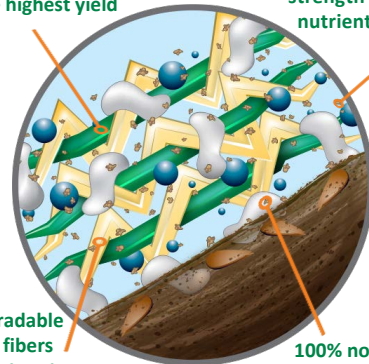
Total Success with Flexterra and ProGanics

Flexterra HP-FGM uses patented technology to combine both chemical and mechanical bonding of the hydraulically-applied matrix. In other words, Flexterra sticks better to the soil and lasts longer than other erosion control products. This is an important characteristic for effectively controlling erosion under rainy and windy conditions, and on steep slopes, for an extended period of time.

Flexterra also requires no cure time. It immediately protects the seed and soil after being applied; minimizing the threat of washing away or having downtime waiting for the rain to pass during installation.

100% recycled Thermally Refined® wood fibers produce the highest yield

Patented Mirco-Pores increase bond strength and water/nutrient retention



100% biodegradable interlocking fibers increase wet bond strength

100% non-toxic biopolymers and water absorbents enhance germination



Nearly complete cover exposed rock

ProGanics BSM is designed as an alternative to topsoil and compost that can be applied quickly, even under wet conditions, using less labor and minimizing safety and access concerns. ProGanics complements the performance of hydraulic and rolled erosion control products, such as Flexterra.

ProGanics saves time and money where the cost and availability of topsoil is prohibitive. ProGanics also provides an abundant source of organic matter and soil building components. Applying Flexterra HP-FGM over ProGanics will provide near perfect erosion control.



Sustainable vegetation 9 months after installation



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