Why use **Equipmentless Foam Sealant (EFS)** instead of other foams?

1. EFS is a patented product made specifically for the sealing of abandoned mine openings.
2. The **density** of EFS was determined by application not by request. We at Foam Concepts found that the density of our foam needed to meet the requirements set by the various government agencies, but also had to be consistent at all elevations.
3. Other suppliers have overlooked one of the most important areas when working with foam-**cure time**. There can not be any doubt that this is the most critical part when considering what type of foam is to be used. If the foam cures too fast it can generate enough heat to self-ignite. This has been known to happen quite often in the foam industry. Another point to mention is that when foam cures too fast it will not flow into the small cracks and voids – therefore not providing a 100% seal. A fast cure also produces what is known as the **egg shell effect.** This is when the foam looks perfectly good on the surface, but is actually hollow in the center. This is caused when the exothermic reaction consumes the foam but stops short of ignition due to lack of oxygen.
4. **Application**: EFS is the only true equipmentless foam system. All the applicator needs to do is read the directions and with a little manual labor they create foam that meets the specifications required every time. There is no need for a technician and expensive equipment.
5. **Packaging**: The foam is what makes it all come together. Not only have we eliminated the possibility of using foam that could be off ratio, there is now a foam that can be transported anywhere by any means and does not need an expert to install.

If it does not have the same cream time: 50 seconds
gel time: 206 seconds
tackfree time: 260 seconds
rise time: 268 seconds

then it is not equivalent to or the same as our patented foam system, EFS.

EQUIPMENTLESS FOAM SEALANT™	CONCRETE	STEEL
Portability Can be performed anywhere. Kits are easily backpacked to the site with no disturbance to the environment.	**Portability** Must be trucked in and requires a good road and hard-packed surrounding soil.	**Portability** Needs a good road access and flat terrain with good soil.
Installation Very Safe. No need to enter the shaft. Eliminates welding and use of power tools. No chance of injury or fire.	**Installation** Requires entering the shaft to construct a false bottom. Possibility of fire and cave-ins from weight.	**Installation** Extreme fire hazard. Done with welding the steel – must enter the shaft and handle a large amount of weight.
Longevity Foam is inert, 90-95% closed cell. Only effected by ultraviolet light. Completely unaffected by acid drainage.	**Longevity** Quality and life expectancy of concrete are severely decreased by the effects of acid drainage.	**Longevity** Acid drainage causes corrosion and severely weakens steel, creating unsafe conditions.
Positive Seal Will not shrink, keeping a positive seal that protects ground water, eliminates erosion, and stops sinking of the closure.	**Positive Seal** Will shrink – eliminating all the benefits of having a positive seal. Weight on a false bottom will eventually create an unsafe situation.	**Positive Seal** Impossible to get a positive seal. Will not control erosion, protect ground water or control acid drainage.
Weight Static load of foam is 1/64 the weight of concrete. No need for heavy-duty construction of false bottoms or containment walls for adits.	**Weight** Extremely heavy. Very high static load. Requires expensive construction of false bottoms for shafts and containment walls for adits.	**Weight** Also heavy. Still requires a lot of reinforcement.
Labor Minimal labor costs. 2-3 hours for a shaft, 3-5 hours for an adit.	**Labor** Requires at least three days or more of high-skilled, high-priced labor.	**Labor** Requires at least two days or more of highly-skilled labor.