

# Mearl Transport<sup>®</sup>

## for Mine Tailings Transport

Cellular Concrete Solutions<sup>®</sup> has developed an innovative foam product to transport solid materials, such as mine tailings or waste crusher sands, through a pipeline. The process provides a less expensive and environmentally safe alternative to traditional transport methods.

Traditional tailings transportation uses water as the transport medium. **Mearl Transport<sup>®</sup>** technology involves the introduction of air bubbles to replace the water as the main transport medium.

**Mearl Transport** is ideal for backfills that have limited access to water. When using foam as a transport agent, less energy is required to pump the material, so it is more cost effective than water.

### Other Applications:

- Mine Fills
- Tunnel Arch Backfills
- Annular Fills
- Soil Stabilization
- Retaining Wall Backfills

### Features & Benefits:

- Eliminates the need for an impoundment pond.
- Since air weighs less than water, foam uses less energy than water when being used as a transport medium.
- Foam is generated on site - eliminating the need to pump in or haul a water source
- Foam reduces abrasion on the pipeline due to the lower flow velocity and plug flow pattern.
- Foam is 100% biodegradable.
- Particle size can be as large as 3/4".

### Performance Characteristics:

**Mearl Transport** suspends the tailing particles during transportation without any segregation. This eliminates the need for a high pumping velocity, further reducing the energy demand and allowing for a wider range of pumps than can be used to transport the tailings.

More solids per unit area are pumped when using **Mearl Transport** when compared to using water. (For example: 50% solids with water weighs approximately 81 lbs.; 50% solids with foam weighs approximately 53 lbs.)

If small amounts of **Mearl Transport** (3-8 %) are used with conventional transportation methods, or used with paste backfill, this process would still reduce energy demand and allow for a wider range of pump types.

**Mearl Transport** can be designed to collapse under a vertical height. When used with a paste backfill, this will allow the maximum amount of tailings to be placed in the mine, while also reducing pressure requirements.



### CELLULAR CONCRETE SOLUTIONS

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