

Darafill® Dry

Controlled Low Strength Material (CLSM)
Performance Additive

DESCRIPTION

DARAFILL® Dry is a controlled low strength material (CLSM) powdered additive that produces material that is highly flowable, volume stable and excavatable in the future. It generates a stable air matrix in CLSM mixtures, improving flowability and reducing the required amount of mix water up to 50%, compared to a water-based CLSM.

**CLSM may be referred to as "Flowable Fill", "Controlled Density Fill" or "Cement Stabilized Sand" in different geographical areas.*

ADVANTAGES

- Produces re-excavatable CLSM with 15–30% air entrainment and reduced buoyancy
- Generates CLSM with minimal subsidence relative to water-based fill systems
- Simplifies job site addition by being packaged in easy-to-use bags

FIELDS OF APPLICATION

- Street & Highway Cross Cuttings
- Abandoned Underground Structures
- Utility Excavations
- Commercial & Residential Back-fill Applications
- Pipe Bending
- Subgrade Base
- Backfill for Radiant Heat Flatwork

Method of Use

Dosage

- DARAFILL® Dry dosage rates can vary with the type of application. The addition rate can range between 35 oz/yd³ to 70 oz/yd³. Typical dosage rates are:
 - Small Bag: 0.38 lbs (0.17 kg) to dose 1 yd³ (0.75 m³)
 - Large Bag: 1.5 lbs (0.68 kg) to dose 4 yd³ (3 m³)
- Optimal addition rates should be determined based on field trials.
- Should conditions require using more than the recommended addition rates, please consult your CHRYSO® representative.

Additional Usage Recommendations

- Suitable for use with cement, and pozzolans such as ASTM grade fly ash and ground blast furnace slag.

Implementation

- In general, it is recommended that DARAFILL® Dry be added directly into mixers after the CLSM load is batched.
- Product is fully activated once CLSM reaches a creamy, flowing appearance.
- For central mix operations, add the contents of DARAFILL® Dry bags into the central mixer and not into trucks to ease discharge from the central mixer.
- Pretesting should be performed before use and as conditions & materials change in order to optimize dosage rates & mixing times.
- If water-based CLSM is now being used, a mix design adjustment will be required in order to use DARAFILL® Dry. Mix design information may be obtained from your CHRYSO® representative.

The information contained in this technical data sheet is given to the best of our knowledge and the result from extensive testing - which were conducted in order to remain as objective as possible. However, it cannot, in any case, be considered as a warranty involving our liability in case of misuse or any different use of our products, other than those from the "Application" paragraph of this technical data sheet. Some application tests should be carried out before using the product to ensure that the methods of use and conditions of application of the product are satisfactory. Our technical assistance is at the disposal of the users.

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Performances

- Provides a cost-effective alternative to a water-based CLSM mixture.
- Produces highly flowable CLSM with no segregation.
- Controls strength development for future excavation, usually in the range of 50 psi to 200 psi (0.35 to 1.40 MPa) depending on the application requirements.
- Increases yield of materials up to 30%.
- Generates densities in the range of 90 to 120 lbs/ft³ (1440 to 1920 kg/m³).
- Aids pumpability and minimizes segregation in pump between loads.
- Reduces buoyancy problems in CLSM around embedded pipes and tanks when compared to water-based CLSM.

CHARACTERISTICS

Product Nature	Aggregated powder
Color	Yellow-white

PACKAGING

- 1.5lb bag
- 0,17kg Bag (0,38 lb)

PRECAUTIONS

- In storage, product should be kept away from heat sources, humidity and direct sunlight.
- Product should not be stored below 32°F (0°C) or above 130°F (55°C).
- DARAFILL® Dry is designed for CLSM mixtures and is not recommended for use in conventional concrete.

SAFETY

Prior to any use, please read carefully the Safety Data Sheet.