

Darafill®

Controlled Low Strength Material (CLSM)
Performance Additive

DESCRIPTION

DARAFILL® is a controlled low strength material additive designed to enhance flowability and reduce water demand in controlled low strength material applications, improving workability, volume stability, and future excavability. It is ideal for cementitious backfill

requiring high flowability and reduced water content. This product features a viscous organic compound solution that creates a stable-air matrix, making it well-suited for projects needing lower water usage and consistent air content between 15–30%.

ADVANTAGES

- Creates re-excavatable CLSM with improved air stability
- Minimizes subsidence for consistent long-term performance
- Adapts to a wide variety of mix designs and applications
- Reduces buoyancy for better control around embedded structures
- Supports versatile performance across diverse jobsite conditions

FIELDS OF APPLICATION

- Street and highway cross cuttings
- Abandoned underground structures
- Utility excavations
- Commercial and residential back-fill applications
- Pipe bending
- Sub-grad base
- Backfill for radiant heat flatwork

Method of Use

Dosage

- Addition rates vary based on cement type, mix design, aggregate properties, environmental conditions, and project requirements.
- The typical dosage is one 3 oz (90 mL) capsule to dose 1 yd³ (0.75 m³) or one 12 oz (360 mL) capsule to dose 4 yd³ (3 m³).
- Alternatively, liquid DARAFILL® may be dosed at 3 fl. oz. (90 mL) per 1 yd³ (0.75 m³).
- If water-based CLSM is now being used, a mix design adjustment will be required in order to use DARAFILL®.
- If conditions require using more than the recommended addition rates, please consult your Chryso® representative.

Implementation

- Product should be added directly into mixers after the CLSM load is batched.
- For optimization of freight volumes, add product at the job site.
- For ready-mix truck batching, best results are achieved by tossing the capsules against the bottom of the truck hopper to ensure breakage, or dosing the liquid DARAFILL® into the rear of the drum, and then washing down.
- For central mix operations, add capsules into the central mixer and not into trucks to ease discharge from the central mixer.
- CLSM with DARAFILL® reaches optimum consistency when the mixture reaches a creamy, flowing appearance.

Performances

- Delivers CLSM with high flowability and no segregation, ensuring uniform placement.
- Regulates compressive strength for future excavation, typically achieving 50 to 200 psi (0.35 to 1.40 MPa) based on project needs.
- Boosts material yield by up to 30%, optimizing mix efficiency and cost-effectiveness.
- Achieves in-place densities ranging from 90 to 120 lbs/ft³ (1440 to 1920 kg/m³), supporting structural consistency.
- Enhances pumpability and limits inter-load segregation; pre-job testing with actual equipment and setup is strongly encouraged.
- Mitigates buoyancy concerns around embedded structures when compared to conventional water-based CLSM systems.

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.

TECHNICAL DATA SHEET

Darafill®

Controlled Low Strength Material (CLSM)
Performance Additive

Chryso
Concrete
Solutions

06/27/2025

CHARACTERISTICS

Product Nature	Liquid
Color	Yellow-Amber
Shelf life	12 months
Cl⁻ ions content	< 0,100 %

PACKAGING

- Bulk
- 13L Pail (3.5 Gallons)

PRECAUTIONS

- Product has a temperature tolerance of 32°F to 130°F (0°C to 55°C).
- Store product above freezing, away from heat sources, moisture and out of direct sunlight.

SAFETY

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