

Chryso® Trysta (formerly Trysta®)

Quality & Strength-Enhancing Additive

DESCRIPTION

Chryso®Trysta freeze/thaw durability-enhancing admixture is based on patented technology. It is for zero slump concrete applications such as segmental retaining wall units and concrete pavers, which are exposed to environments of repeated freezing and thawing.

When water freezes, it undergoes an approximate nine percent volume expansion. In low slump manufactured concrete products this expansion occurs in the cement paste and induces significant stresses that cause the cement paste microstructure to rupture and fail.

Chryso®Trysta admixture improves the freeze/thaw durability of manufactured concrete products in two important ways. First, it improves cement utilization, enhancing cement dispersion in low-slump concrete mixtures. This improves the overall quality, uniformity, and strength of the cement paste. Second, it entrains micron-sized air bubbles which act as escape boundaries for the expanding ice front. These air bubbles act as relief valves in a similar fashion as the entrained air in freeze/thaw durable ready-mix concrete

ADVANTAGES

- Enhances freeze/thaw durability
- Reduces feed and finish times
- Reduces culls

FIELDS OF APPLICATION

The freeze/thaw durability of manufactured concrete products is generally a function of:

1. Aggregate quality
2. Aggregate gradation and proportioning
3. Cement/aggregate ratio
4. Use of hydrophobic producing admixtures
5. Water absorption and density characteristics of the concrete

The use of Chryso®Trysta admixture with proper mix design, increases the resistance of concrete to the destructive stresses of repeated freezing and thawing

Method of Use

Dosage

Chryso®Trysta admixture is compatible with most concrete additives, but when multiple additives are used they must be added separately to the concrete mixture.

Addition Rates:

Chryso®Trysta admixture is typically used at a rate of 5-15 oz/cwt (325-975 mL/100 kg) of cementitious material. The rate will vary depending on the level of freeze/thaw durability required. Chryso®Trysta admixture produces little change to the appearance of the concrete units at the lower addition rates, but may provide a swipe at the higher addition rates.

Additional Usage Recommendations

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

**Chryso
Concrete
Solutions**

03/06/2026

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Chryso® Trysta admixture provides dramatically improved freeze/thaw durability to manufactured concrete products and is formulated to help these products meet freeze/thaw durability standards when tested in both tap water and saline.

CHARACTERISTICS

Product Nature	Liquid
Apparent density	1,030
pH (25°C)	5,50

PACKAGING

- 1000L Tote (275 gallons)
- 210L Drum (55 gallons)
- 13L Pail (3.5 Gallons)

PRECAUTIONS

TRYSTA admixture will begin to freeze at approximately 32°F (0°C), but can be used after thawing and thorough mechanical agitation.

SAFETY

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

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