

TRYSTA[®]

Freeze/thaw durability-enhancing admixture

Product Description

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.

Product Function

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.

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 readymix concrete

Product Uses

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.

Application Information

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:

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.

TRYSTA[®] admixture produces little change to the appearance of the concrete units at the lower addition rates, but may provide a swiipe at the higher addition rates.

Product Advantages

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

Packaging

TRYSTA[®]admixture is available in drums and returnable totes.

Health & Safety

All precautions defined on the SDS (Safety Data Sheet) for TRYSTA[®]admixture must be followed

Storage

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

Application Considerations

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

- Aggregate quality
- Aggregate gradation and proportioning
- Cement/aggregate ratio
- Use of hydrophobic producing admixtures
- Water absorption and density characteristics of the concrete

The use of TRYSTA[®]admixture with proper mix design, increases the resistance of concrete to the destructive stresses of repeated freezing and thawing.

gcpat.com | North America Customer Service: 1 877-4AD-MIX1 (1 877-423-6491)

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

TRISTA is a trademark, which may be registered in the United States and/or other countries, of GCP Applied Technologies Inc. This trademark list has been compiled using available published information as of the publication date and may not accurately reflect current trademark ownership or status.

© Copyright 2018 GCP Applied Technologies Inc. All rights reserved.

GCP Applied Technologies Inc., 2325 Lakeview Parkway, Alpharetta, GA 30009, USA

GCP Canada, Inc., 294 Clements Road, West, Ajax, Ontario, Canada L1S 3C6

This document is only current as of the last updated date stated below and is valid only for use in the United States. It is important that you always refer to the currently available information at the URL below to provide the most current product information at the time of use. Additional literature such as Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations and other relevant documents are also available on www.gcpat.com. Information found on other websites must not be relied upon, as they may not be up-to-date or applicable to the conditions in your location and we do not accept any responsibility for their content. If there are any conflicts or if you need more information, please contact GCP Customer Service.

Last Updated: 2022-05-06

gcpat.com/solutions/products/masonry-hardscape-solutions/trysta