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TECHNICAL DATA SHEET

Product: Trident Concrete Additive

Revision Date 1st June 2025

Acc to OSHA & ANSI

DESCRIPTION

Trident Concrete Additive is a PFAS free concrete additive capable of providing an increase in strength with low loading amount (500ml-1000ml per Cubic Meter). The Strength additive is composed of next-gen nano materials that are dispersed in an aqueous matrix. The nanoparticles enhance concrete's mechanical properties and provide resistance to corrosion, water entrenchment, abrasion, and bending. Trident is added to concrete at the batching plant or on-site.

CHEMICAL COMPOSITION:

Next-Gen Nanomaterials, Proprietary Dispersing Agent(s), Stabilizing Agent(s)

SUPPLY FORM:

Liquid Dispersion.

TYPICAL PROPERTIES:

PROPERTY	Baseline M25 Concrete	M25 Concrete with Trident	UNIT
Compressive Strength	34.3	43.4	MPa
Flexural Strength	2	4.3	MPa
Water Permeability	0.07	0.04	KT/M ²
Chloride Permeability	585	235	C

This test was conducted with 800 ml of Trident per Cubic Meter of M25 Concrete

STORAGE:

The liquid dispersion should be stored in its original container tightly sealed and in a dry dark place. If stored properly, the Trident additive has a lifespan of ~1.5 years. During Storage, the liquid additive should not freeze as this will lead to a loss in dispersion quality and effectiveness. The additive is recommended to be used within 3 to 6 months for best performance. For more storage information, please refer to the Material Safety Data Sheet provided by Pipedream Industries.

PACKAGING:

The packaging material will consist of a rigid plastic container with an entryway for charging and discharging material.. The sizes we ship are as follows: 55 gallon and 250 gallon. We can also provide bulk liquid to be stored in stationary tank depots onsite. For larger quantities, please reach out to info@pipedreamindustries for more information.

GENERAL PROPERTIES:

The Trident Concrete Additive is characterized as:

- PFAS Free
- Low Effective Loading
- Higher Flexural Strength
- Better Water Resistance
- Better Corrosion Resistance
- Higher Compressive Strength
- Cement Reduction

INSTRUCTIONS AND RECOMMENDATIONS OF USE:

The dispersion and incorporation is the most important factor in realizing the Trident Concrete Additive's properties. Due to this fact, the liquid is best incorporated into the water supply that is expected to be used in Concrete making. The liquid dispersion enhances the compressive and flexural strength of concrete, reducing the amount of cementitious material required.

Due to the way the liquid dispersion enhances strength, expect the concrete to achieve lower water permeability and chloride permeability.

We recommend using the additive in conjunction with other admixtures to ensure slump profile remains consistent.

The liquid dispersion can be used in both Ready-Mix Concrete and Precast/Prestressed Concrete.

When designing a new concrete recipe, we recommend conducting small trials to ensure the proper dosage and strength is achieved. We recommend designing concrete mixes and generating 12 cylinders/blocks for testing. Test Compressive strength at the following days: 3 Days, 7 Days, 14 Days, and 28 Days.

APPLICATIONS:

The Trident Concrete additive is used to enhance strength in Concrete mixes. Typical application is used to comply and exceed compressive strength regulations while utilizing reduced cementitious materials.

HANDLING AND SAFETY:

The product should be stored in its tightly sealed original container in a cool dry place. Once opened, the liquid dispersion should either be completely used, disposed of, or resealed in its original packaging. Consult the Material Safety Data Sheet (MSDS) for additional information on storage.

When handled by an individual, the individual should wear Masks and Gloves. Consult the Material Safety Data Sheet (MSDS) for additional information on handling and safety precautions.