GSM Construction Chemicals

ETHIOPLAST 505

Technical Datasheet

Product Description

ETHIOPLAST 505 is a premium, chloride-free accelerating admixture for concrete and mortar, designed to enhance the early stages of cement hydration. Formulated with a unique combination of formate and nitrite salts, it is presented as a straw-colored solution that rapidly disperses in water. By accelerating cement hydration, ETHIOPLAST 505 enables quicker stiffening and early strength gain, a feature that is especially beneficial under low temperature conditions.



Recommended Uses

- Ideal for accelerating the setting time and early strength gain of Portland cement concrete and mortar in cold weather conditions.
- Useful in precast concrete manufacturing to increase mold turnover rates.
- Applicable for construction projects requiring rapid strength gain to minimize downtime.

Features and Benefits

- Accelerates Hydration: Promotes faster stiffening and early strength development in concrete and mortar, essential for early formwork removal and fast-paced construction schedules.
- Chloride-Free: Safe for use in all types of reinforced concrete, preventing corrosion of steel reinforcement.
- Enhances Workability: Offers improved workability and a degree of water reduction, contributing to the mix's ease of use and performance.
- Cold Weather Concreting: Counteracts the effects of low temperatures on concrete setting and strength gain, making it ideal for cold weather applications.
- Versatile Application: Suitable for a wide range of uses, including precast concrete, cold weather concreting, and bricklaying mortar.

Application Instructions

- Dosage: Typically ranges from 1% to 3% by weight of cement, depending on desired acceleration level and concrete mix design.
- Mixing: Add ETHIOPLAST 505 to the mixing water or directly to the concrete mix at the beginning of the mixing cycle to ensure thorough dispersion.
- Compatibility: Can be used with all types of Portland cement and is compatible with other concrete admixtures. Pre-testing is recommended to confirm compatibility.

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Storage and Handling

- Store in a cool, dry place, protected from freezing and extreme heat.
- Keep container tightly sealed when not in use to maintain product integrity.

Safety Precautions

- Wear appropriate protective clothing, gloves, and eye protection during handling and application.
- In case of contact with skin or eyes, wash immediately with plenty of water. Seek medical attention if irritation persists.

Technical Support

GAST Solar Mechanics PLC offers comprehensive technical support for ETHIOPLAST 505, including detailed application guidance, compatibility testing, and optimization for specific project requirements. Our dedicated team is available to assist with your construction challenges, ensuring optimal performance and efficiency of ETHIOPLAST 505 in your concrete and mortar applications.

This technical data sheet for ETHIOPLAST 505 provides detailed insights into its application, advantages, and safe handling practices. It is crafted to assist professionals in effectively utilizing this accelerating admixture to enhance the performance of concrete and mortar, particularly in challenging cold weather conditions.