



8010

Concrete and Mortar Admixture for Anti-Frost

Description: Polynaphthalene sulfonate and nitrate salt based concrete and mortar admixture which increases the fluidity and accelerates the setting of the concrete in weather conditions when the risk of frost is high and gives resistance to the concrete against freezing. Does not contain chlorine.

Application Areas: Protection of the concrete against frost throughout the day in cold weather, applications where early high resistance is required in cold weather, protection of cement based indoor and outdoor plasters against frost, conditions where there is a risk of sudden temperature decrease, when the molds are needed to be removed early, floor screeds, production of all kinds of concrete, with or without reinforcement, pouring of precast and prefabricated concrete, production of ready-mix concrete with or without pumps.

Advantages:

- Protects the concrete from frost when pouring the concrete in cold weather and gives it early resistance. Shortens the initial and final setting time
- Does not damage the reinforcement as it does not contain chlorine. Not corrosive. Can be used safely in reinforced concrete buildings.
- Provides the continuity of the construction work in cold weather, without any need to delay the concrete pouring.
- Ensures the homogenous distribution of the cement and sand particles in the concrete and the mortar and provides the hydration on a larger surface.

Application Information: In concrete and mortar admixture for anti-frost application, mixing water is added to the concrete or mortar in two stages. First stage Approximately 50% of the mix water without added concrete and mortar admixture for anti-frost is added to the concrete or mortar. Second The amount of concrete and mortar admixture for anti-frost calculated according to the amount of binder is added to the remaining 50% water. For homogeneous distribution of concrete and mortar admixture for anti-frost in concrete or mortar, preferably 1 - 2 minutes stirring.

Consumption: 1.0 - 2.5 kg product is used for 100 kg binder (cement, fly ash, slag etc.). This amount can be increased up to 5 kg in very cold

weather.

Caution: Composition and amount of admixture in concrete or mortar to desired concrete class and properties raw materials to be used in the construction site according to the results of the preliminary laboratory tests should be determined. Since the direct addition of additives on the dry mixture (binder + aggregate) prevents uniform distribution the mechanical properties of the concrete are not achieved. Additive must be added to the water. It should be.If more than the recommended consumption is used, change can be observed. In suitable conditions to prevent the materials to be used in concrete or mortar mixture from being affected by cold and at least $+5\,^{\circ}$ C of fresh concrete temperature depending on the ambient temperature and the thickness of the concrete casting. It should be between + 15 $^{\circ}$ C. Fast heat and moisture loss should be avoided until concrete reaches strength of 4 - 5 N / mm², suitable curing methods should be protected with. Instead of steel formwork, preferably wood formwork should be used. Must be shaken before use

Packaging: 30 kg plastic drums

Shelf Life: Unopened packages can be stored in cool and dry environments for 12 months. Shake well before use. Protect it against frost.

Health and Safety: As with all chemical products, contact with food, skin, eyes and mouth should be avoided during usage and storing. In case of contact with skin, rinse immediately with water and soap, if swallowed by accident, consult a doctor. During application, work clothes, protective gloves and glasses and masks that are in conformity with work and worker health regulations must be used. No food or drinks should be allowed to application areas. Do not approach storages and application areas with fire. The application areas have to be ventilated. Keep out of reach of children.



Technical Properties	
Technical Properties Appearance	: Brown colored liquid
Liquid Density	$: 1.15 \pm 0.05 \text{ kg/L} (20^{\circ}\text{C})$
pH	: 6 - 8 (20°C)
Chlorine Content	: < 0.1%
Freezing Point	: -10°C

Application instructions and technical data provided for the products are obtained in line with our experience and the tests we implemented according to international standards under ambient temperatures of 23 ± 2 °C and ambient relative humidity conditions of $50\% \pm 5$. Higher temperatures decrease the times and lower temperatures increase them.

