StenMix® ANTIFREEZE

1. Product Profile

StenMix® ANTIFREEZE is an antifreeze admixture which protects the fresh concrete against freezing and allows production of high-quality concrete by decreasing setting time at low temperatures. StenMix® ANTIFREEZE does not contain chlorides or similar corrosive ingredients.

StenMix® ANTIFREEZE conforms to requirements of TS EN 934-2 T6 and ASTM C 494-81 Type C.

StenMix® ANTIFREEZE is available in 200 kg drums and 1,000 kg IBCs.

2. Uses

StenMix® ANTIFREEZE is used to protect freshly placed concrete, grout, injection mortars from freezing. It decreases the negative effect of low temperatures on fresh concrete by shortening setting time. StenMix® ANTIFREEZE can be used to safely place concrete when ambient temperature is below freezing point. StenMix® ANTIFREEZE significantly shortens the time required to cure concrete to a limit compressive strength (5MPa), after which the concrete is invulnerable to freezing.

StenMix® ANTIFREEZE does not contain chlorides or similar corrosive ingredients. Therefore, it does not cause corrosion of steel reinforcements and is safe to use with reinforced concrete.

3. Application

StenMix® ANTIFREEZE is mixed with the gauging water. It shall be used between 1-3% of the weight of cement. Dosage varies with cement chemistry and concrete mix, so it should be determined by laboratory tests and on-site evaluation.

Application of StenMix® ANTIFREEZE varies with temperature:

Between 0°C to +5°C, using StenMix® ANTIFREEZE is not mandatory but recommended.

Between -5°C to 0°C, using StenMix® ANTIFREEZE is mandatory and sufficient for protection. However, taking measures to ensure high enough cure temperature is recommended.

Between -10°C to -5°C, both using StenMix® ANTIFREEZE and taking measures to ensure high enough cure temperature is mandatory.

Anti-Freeze and Quick Set Admixture for Concrete

Highlights

- High quality concrete at low temperatures
- Does not cause corrosion of steel reinforcements
- Allows placing of concrete at low temperature
- Increases concretes resistance to freezing
- Shortens time required to cure to limit compressive strength for frost invulnerability
- Can be used with reinforced, precast, light weight or normal weight concrete

In order to keep temperatures high;

Cement, water and aggregates shouldn't be frozen, water/cement ratio must be minimized, cement dosage of concrete must not be below 300 kg/m^3, moisture and heat loss of concrete must be prevented by properly covering, formwork time should be extended, fresh concrete temperature must be kept at least +5°C

4. Safety

Applicators and supervisors must read Material Safety Data Sheet (MSDS) carefully and observe the considerations written therein. Emptied packages must be handled in compliance with relevant regulations and laws.

Stenkim Kimyasal Maddeler Sanayi ve Ticaret A.S.
Ofis: Portakal Cicegi Sok. Ansera Is Merkezi 17/126 Cankaya / ANKARA Tel: +90 312 442 2630 Fax: +90 312 442 2615
www.stenkim.com

5. Storage

The material must be kept in dry indoor storage. Recommended storage temperature is 0-30°C. Stored in these conditions, the shelf life is 12 months.

6. Company Liability

The information contained in this document is based on site experience of and laboratory tests done by Stenkim® and meant to give general information. It is the purchaser's responsibility to ensure applicability of products to their use. All Stenkim® products are available in specified quality and conditions. The company accepts no liability whatsoever unless the transportation, storage, application conditions and customer use are overseen by Stenkim®.

Stenkim® reserves the right to update all information contained in this document without notice.

7. Technical Data

Properties	Results
Appearance - Color	Brown Colored Liquid
Chemical Structure	Inorganic Mixture
Density	1.25 kg/l ± 0.01 kg/l
pH	6.00 ± 0.50
Chloride Content	None

Stenkim® reserves the right to make changes in the values in this table at any time.

Stenkim Kimyasal Maddeler Sanayi ve Ticaret A.S.
Ofis: Portakal Cicegi Sok. Ansera Is Merkezi 17/126 Cankaya / ANKARA Tel: +90 312 442 2630 Fax: +90 312 442 2615
www.stenkim.com