TECHNICAL DATA SHEET
ADD-ANTIFREEZE
FROST-RESISTANT MORTAR ADDITIVE

NUR YAPI KİMYASALLARI
nurkim.com.tr

DESCRIPTION:
Chlorine-free liquid mortar additive which accelerates the setting of cementitious concrete & mortars by increasing hydration temperature of the cement and decreasing freezing point of the water, so enables application in cold and frost weather.

APPLICATION AREAS:
Used to accelerate the setting of concrete mortars for applications that need early concrete form releasing, to increase early strength for the applications that high early strength is needed and to protect the cementitious plaster, screed and concrete from the effects of weather conditions which have cold-freeze-sudden temperature change risks.

ADVANTAGES:
* Increases the early strength of cement based mortars and concrete against frost and cold weather effects, allows application in such weather conditions.
* Shortens starting and finish setting times of mortars and concrete.
* Chlorine free, no corrosive effect, no damage to the reinforcement.
* Shortens the mold removal and labor time in cold weather.

SURFACE PREPARATION:
Application surface should be clean, sound and free from dust. Adhesion barrier materials (oil, dust, etc.) should be cleaned, cement-mortar residues should be scraped. Smooth surfaces should be notched. The required surface preparation steps should be done in accordance with the mortar to be used with ADD-ANTIFREEZE. Snow and ice on the surface should be cleaned.

PRODUCT PREPARATION:
ADD-ANTIFREEZE is added in mixture water as 1% of the cement weight depending on the weather. Cementitious dry mixture is added in prepared ADD-ANTIFREEZE/water mixture by sprinkling. Blended by a low speed mixer up to ensure that there are no lumps in it. For usage as concrete additive, ADD-ANTIFREEZE is added in mixture water as 1% of the cement weight and mixed. When ADD-ANTIFREEZE is used in concrete, mixture water should be decreased up to 3%. Any extra water or ADD-ANTIFREEZE should not be added in after mixing is completed.

APPLICATION METHODS:
* Adding ADD-ANTIFREEZE directly in cementitious dry mixture prevents homogeneous distribution. ADD-ANTIFREEZE should be used by adding in mixture water.
* As the performance and usage ratio of the product will vary depending on the weather and the products to be used together, for the desired performance, practitioner should determine the optimum mixing ratio for weather and products by performing compatibility tests before use.
* Ensure that the products used in the application (aggragate, cement, etc.) are not frozen.
* Usage as mortar additive, mortar temperature should be minimum + 5°C. If needed the mixing water or the environment should be heated to provide necessary mortar temperature.
* When used as concrete additive, fresh concrete temperature should be minimum + 5°C. If needed the concrete forms, aggregate, mixing water or cement should be heated to provide necessary concrete temperature.
* Concrete must be protected by suitable curing methods until rise up 5 N/mm^2 strength, rapid temperature/moisture loss should be prevented.
* ADD-ANTIFREEZE can be applied at ambient temperature up to -10°C. Below precautions should be taken to provide application temperature at ambient temperatures up to -20°C.
* If ADD-ANTIFREEZE is frozen before use, it can be thawed at + 20°C and can be used after shaking.
* Expired, non-homogeneous product should not be used.
* Mortar should not be applied on unsound and loose surfaces.
* Hardened-frozen-melted mortar shouldn't be used by adding ADD-ANTIFREEZE or water and mixing.

SHELF LIFE:
Unopened original packages can be stored in dry (%60 R.H.) and cool (+5°C / +25°C) environments up to 12 months.

NUR KİREÇ SAN. TİC. VE PAZ. LTD. ŞTİ.
Güzel Cumhuriyet Mah. Çimento Bulv. No:23 PK: 01965
Yüreğir/Adana/Türkiye
"NUR YAPI KİMYASALLARI"

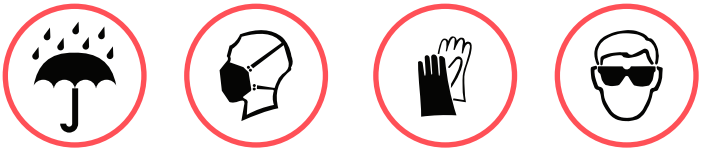
Mortar Additive For Freezing Resistance

Appearance	*Brown liquid*
Density	1050 ± 50 g/L
pH	6 - 8

GHS07

H335: *It may cause respiratory irritation.*

P305+ P351+ P338 : *In case of contact with eyes, rinse carefully with water a few minutes. If avalible and easy, remove contact lenses. Continue rinsing.*



NUR YAPI KİMYASALLARI
nurkim.com.tr
NUR KİREÇ
nurkirec.com.tr

NUR KİREÇ SAN. TİC. VE PAZ. LTD. ŞTİ.
GÜZEL CUMHURİYET MAH. ÇİMENTO BULV. NO:23
PK:01965 YÜREĞİR/ADANA/TÜRKİYE
TEL: +90 322 332 9646
www.nurkim.com.tr
nurkim@nurkim.com.tr
FAKS: +90 322 332 8302
www.nurkirec.com.tr
nurkirec@nurkirec.com.tr