

Teknoflow 500

Hyper Plasticizer Concrete Admixture



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Product Description

Modified polycarboxylic ether based, superplasticizing concrete additive which gives early high strength without adversely affecting final strength of concrete. It conforms to the specifications given in TS EN 934-2 Tables 3.1 and 3.2.

Areas of Usage

- It's used in houses, shopping malls, hospitals,
- In engineering structures such as subways, highways, tunnels, dams,
- In ready mixed concrete production,
- In the production of high performance concrete,
- Early gloss and surface smoothing can be done without loss of cohesion in concrete under cold weather conditions,
- Since it does not contain chlorine, it can be used in reinforced concrete structures and pre-stressed elements,
- It is used in the production of prefabricated concrete which requires very high early strength such as 8-24 hours.

Features and Benefits

- It provides better cement distribution in concrete, so it provides plastic consistency without loss of cohesion.
- TEKNOFLOW 500 can reduce the water / cement ratio by more than 10% and increase the early strengths by 50% compared to the normal superplasticizer mixed concrete depending on the dosage.
- Especially under cold weather conditions, when higher early strengths are required, TEKNO AF 20-40 can be added to concrete.
- The lowest water / cement ratio results in a high quality concrete that sets itself up.
- It reduces water need in concrete (25 - 40%).
- It maintains the consistency of the concrete without delaying the setting.
- Non-dispersible, homogenous concrete is obtained.
- Addition of concrete makes it easier to pump concrete to long distances and high places.
- It provides good spreading of the concrete into the mold without the need for vibration,
- It provides excellent surface appearance.
- High early and final strength in concrete are obtained.

Application Instructions

Surface Preparation: When the ambient temperature is +5°C - +35°C, in areas where screed or concrete to be cast, it should be preferred.

At temperatures below +5°C; Noon hours are the best time. Additional precautions are necessary to be taken in advance to protect the surface from frost, rain, dew and rime.

At temperatures above +35°C; cool morning and evening hours are the best time. Precautions should be taken such as wetting the mold with water, moisturizing the surface and using rested cement in order to reduce the hydration temperature of the concrete, screed or plaster.

Application Notes / Restrictions

- TEKNOFLOW 500 is mixed with the concrete mixture water at the rate of 0,6% -3% of the weight of binder used (0,60-3,00 kg for 100 kg cement). After a homogenous mixture is obtained, it's put in the concrete mold.
- During the application of the product, work clothes suitable for occupational health and safety rules should be worn and suitable glasses and mask should be used.
- It is recommended to use CEM I cement to obtain early high strength.
- In the case of concrete casting in low temperatures below +5°C, the measures recommended in the standard are required. Protective measures against frost must be taken.
- Mixed water of plaster, screed or concrete should be reduced by about 10%.
- Casting pretesting concrete is recommended.
- In case of using additives on the given consumption, the hardening of the concrete will last longer.
- It must be protected after application against adverse weather conditions such as direct sunlight, high air temperature (above +35°C), rain and frost. Hands should be cleaned thoroughly with water and detergent before concrete or mortar is fully cured and hardened.

Technical Data

General Information		
Chemical Structure	Modified polycarboxylic ether	
Color	Brown Homogeneous Fluid	
Consumption	0.6% - 3% of binder weight	
Packaging	30 kg bin or 210 kg barrel	
Shelf Life	12 months in unopened original packaging	
Density	1,13 ±0,03 kg/lt	
pH	4 - 7	
Freeze Point	< -15°C	
Chloride Amount	< 0.1% (chlorine free)	TS EN 480-10 - TS EN 934-2
Alkali Amount	< 10% (Na ₂ O)	TS EN 480-12 - TS EN 934-2

Technical information is approximate value obtained from the Tekno Construction Chemicals Laboratory works and are valid for the performance of the finished product in 27 days, which are obtained at + 20°C temperature and 50% relative air humidity rate.

