

KUT PLAST PCE 600

High Performance Concrete Superplasticiser Based On Modified Polycarboxylic Polyethers

ADM-38-1110



DESCRIPTION

KUT PLAST PCE 600 has been primarily developed for applications in the precast, light weight and airated concrete industries.

Super plasticizing action of **KUT PLAST PCE 600** is different than conventional super plasticizers based on sulfonated melamine and naphthalene formaldehyde condensate, which create electrostatic repulsion of particles. **KUT PLAST PCE 600** initially create the same electrostatic repulsion and further stabilizes the mixes due to static repulsion of long lateral chains linked to the polymer backbone.

USES

The excellent dispersion properties of **KUT PLAST PCE 600** make it the ideal admixture for light weight and airated concrete where low water cement ratios are required. This property allows the production of very high early and high ultimate strength concrete with minimal voids and therefore optimum density. Due to the strength development characteristics the elimination or reduction of steam curing in precast works be considered as an economical option.

ADVANTAGES

During mixing and placement

- Increased workability at low water cement ratios
- Reduced labour requirement
- Improved surface finish
- Chloride free

Effect on hardened concrete properties

- Increased early and ultimate compressive strengths
- Increased flexural strength
- Higher E modulus
- Improved adhesion to reinforcing and stressing steel
- Better resistance to carbonation
- Lower permeability
- Better resistance to aggressive atmospheric conditions
- Reduced shrinkage and creep
- Increased durability

STANDARDS

KUT PLAST PCE 600 is free from chlorides and complies with:

- ASTM C494 Types A and F
- ASTM C1017 Type I Plasticizing.

TYPICAL PROPERTIES

Calcium chloride Content: Nil

Specific gravity: 1.06 to 1.08 @ 20°C

Air entrainment: Less than 1% additional air is entrained.

Setting time: No retardation at normal dosage.

Chloride content: Nil to BS 5075

COMPATIBILITY

KUT PLAST PCE 600 is compatible with all Portland cements that meet recognized international standards.

KUT PLAST PCE 600 must not be used in conjunction with any other admixture unless prior approval is received from the ASPEC Technical Department.

KUT PLAST PCE 600 is suitable for mixes containing:

- Microsilica
- Pulverised fuel ash
- Ground granulated blast furnace slag cement
- Aluminium powder or paste.

INSTRUCTIONS FOR USE

KUT PLAST PCE 600 is a ready to use admixture that is added to the concrete at the time of batching.

The maximum effect is achieved when the **KUT PLAST PCE 600** is added after the addition of 50 % to 70 % of the water.



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KUT PLAST PCE 600 must not be added to the dry materials.

Thorough mixing is essential and a minimum mixing cycle, after the addition of the **KUT PLAST PCE 600**, of 60 seconds for forced action mixers is recommended.

Dosage: The normal dosage for **KUT PLAST PCE 600** is between 0.3 and 1.5 litres per 100 kg of cement (cementitious material).

Dosages outside this range are permissible subject to trial mixes.

Technical Support: **ASPEC** provides technical support service on mix design, admixture selection, evaluation of trials, dispensing equipment etc. Please contact the Technical Department in these cases.

Curing: As with all structural light weight and airated concrete, normal curing methods apply.

Cleaning: Spillages of **KUT PLAST PCE 600** Can be removed with water.

PACKAGING

KUT PLAST PCE 600 is available in 210 litre drums and in bulk tanks upon request

KUT PLAST PCE 600 should be protected from extremes of temperature. Should the material become frozen, it must be completely thawed and thoroughly mixed before use.

KUT PLAST PCE 600 has a minimum shelf life of 12 months provided temperature is kept within the range 5°C to 30°C.

PRECAUTIONS

HEALTH & SAFETY

KUT PLAST PCE 600 is non-toxic. Any splashes to the skin should be washed immediately with water. Splashes to the eyes should be washed immediately with water and medical advice should be sought.

Fire: **KUT PLAST PCE 600** is non flammable.

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