

A.C.P-A HIGH PERFORMANCE ACCELERATING SILICA FUME GEL

DESCRIPTION

A.C.P-A is an advanced concrete admixture used for designing high performance concrete and multipurpose concrete mixtures. A.C.P-A is based on a highly pozzolanic mineral material which significantly reduces water absorption and permeability of concrete, besides increasing workability and accelerating hydration.

A.C.P-A comprises the following chemicals:

1. Silica fumes
2. New generation super plasticizers
3. Waterproofing agents
4. Catalysts and fillers

This advanced-technology product meets the requirements of the following standards:

ASTM C1202

BS EN 12390-8, BS 1881-122

ADVANTAGES

- Reduces water-cement ratio;
- Reduces cement content in concrete between 15 to 20 percent;
- Increases workability and workability retention of concrete;
- Achievement of early compressive strength of concrete
- Improves pumpability of concrete and reduces depreciation of concreting equipment;
- It can be used with all types of Portland cement;
- Possibility of replacement of cement type 2 by cement type 5 when applied;
- Increases the compressive strength of concrete about 30%-70%;
- Considerably reduces permeability;
- Reduces the potential for AAR (Alkali-Aggregate Reaction);
- Inhibits chloride ion penetration and any other destructive chemicals influence

APPLICATION

- Enables production and transportation of concrete in long distances and cold weather concreting;
- Produces High Strength Concrete (HSC) and Water Resistant Concrete (WRC);
- Suitable for marine environments or the regions exposed to chemicals attack, e.g. southern and northern parts of Iran and saline regions;
- Docks, deck bridges, tanks, etc.
- Designs of concrete mixes for Water and Wastewater Treatment.

DOSAGE

The optimum dosage of A.C.P-A can be determined by trials in the site. Depending on concrete mix design (concrete type, workability, compressive strength, sizes and types of aggregates, cement content, water/cement ratio, ambient temperature and concreting conditions), a dosage between 5.0 and 9.0 percent by cement weight is recommended.

Note: when using A.C.P-A, water-cement ratio must be considered around 0.40.

For using other ranges of dosage, contact ABADGARAN INTERNATIONAL GROUP Technical Services Department.

Please contact our engineering office in case of simultaneous use of more than one admixture.



DIRECTION OF USE

A.C.P-A can be added to concrete in two ways:

1-A.C.P-A could be added to ready-mix concrete before placing concrete.

2-A.C.P-A could be added to a part or whole of concrete mixing water then added to the concrete mix.

PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Slurry

Specific gravity: 1.43+ 0.05 g/cm³

Color: Grey

Chloride content: Nil to EN 934

STORAGE

Shelf life: 1 year in the original package

Storage condition: should be protected from direct sunlight and frost. Keep pail in the temperature range between +10°C and +30°C

Packing: 25 kg pail

HEALTH AND SAFETY

This product does not contain any hazardous substance to human health and the environment. However, it should not be swallowed and contacted with skin and eyes. In case of contact with eyes, rinse with plenty of water immediately. A.C.P-A is not flammable.

For further information refer to the material safety data sheet.

MSDS is available at ABADGARAN website.

TECHNICAL SERVICE

The ABADGARAN INTERNATIONAL GROUP Technical Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

