



STAR 318

AIR ENTRAINING, ANTICORROSSIVE,
WATER REDUCING, PLASTICISING ADMIXTURE

DESCRIPTION

STAR – 318 is a high performance water reducing, superplasticising admixture for use in concrete and Portland cement to produce air entrained concrete for increased durability and resistance to damage by frost and deicing salts.

STAR – 318 does not contain any added chloride ions ensuring that the product does not support corrosion of reinforcing steel. Being anti corrosive in nature, helps concrete and steel to prevent corrosion.

ADVANTAGES

- Air entrainment increases the resistance of concrete to attack by frost and de-icing salts, reducing problems of surface scaling and concrete failure
- Entrained air bubbles assist in the formation of a stable cohesive mix, reducing segregation and bleeding
- It reduces permeability of lean concrete mixes.
- It improves stability and cohesion in extruded Concrete.
- Anticorrosive in nature, neither initiates nor promotes corrosion.
- Allows workability to be increased without adding extra water

USES

- Typical applications include as a admixture for concrete roads and bridge decks, airport runways and taxiways and other extensive areas of concrete exposed to potential frost damage
- STAR – 318 improve cohesion and workability of concrete mixes where poorly graded aggregates must be used and bleeding, segregation or sand runs occur

TYPICAL PROPERTIES

Appearance	: Brown liquid
Specific gravity	: 1.18 kg/lit.at 20°C
Chloride content	: Nil to IS : 456
Air entrainment	: Less than 1%
PH by ph meter	: 8

STANDARDS COMPLIANCE

ASTM C-494 Type C
EN 934-2: T6 & T7
IS 9103: 1999
IS 456

COMPATIBILITY

STAR – 318 is compatible with most admixtures used in the production of quality concrete including normal, other mid-range water-reducing admixtures, accelerators, retarders.

The effect of STAR – 318 is dependent upon the cement properties and the type of plasticizers used in the concrete mix. The setting time and early strength gain may be affected if strong retarders are used in the mix. STAR – 318 admixture will neither initiate nor promote corrosion of reinforcing steel, pre-stressed concrete or concrete placed on galvanized steel floor and roof systems.

APPLICATION INSTRUCTIONS

Dosage

The optimum dosage determined by site trails with a specific concrete mix which enables the effects of workability, strength gain and setting time to be measured.

The rate of addition of STAR – 318 is typical between 250 ml to 600ml per 100 kg cement.

Mixing

STAR – 318 should be stirred before use.

STAR – 318 is a ready-to-use liquid, which is dispensed into the concrete together with the mixing water. The dispersing of admixture shall be more uniform if the admixture is added to the damp concrete after 50 to 70% of the mixing water has been added. The addition of STAR – 318 to dry aggregate or cement is not recommended.

CURING:

Normal curing methods such as water pounding/ spray or wet Hessian must be used.

Mix Design:

STAR has a dedicated advisory service on concrete mix Design and can be controlled if assistance is required

STORAGE

This product has a minimum shelf life of 12 month when stored under normal temperature. It should be protected from extreme temperatures. It should be protected from extreme temperature and preferably stored in shade.

PRECAUTIONS

STAR – 318 is safe, non-toxic, and eco-friendly and presents no health hazard. As with all chemicals, caution should always be exercised. Protective clothing such as gloves and goggles

INHALATION: Inhalation of vapor or mist should be avoided. Symptoms include coughing, wheezing, laryngitis, and shortness of breath, headache, nausea, and vomiting. Immediately shift victim to fresh air, and, if needed immediately start artificial respiration. Give oxygen if breathing is labored. Get emergency

EYE CONTACT: Flush eyes with water for 15 minutes and call for medical help.

INGESTION: causes nausea, vomiting, and loss of consciousness. If accidentally swallowed do not induce

SKIN CONTACT: Flush with water or soap and water until all traces have been removed. Seek medical attention if required.

Technical Support:



& Polymertech UK Ltd.
CN-07468396
United Kingdom

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(ISO 9001:2000)