CIS CHEM HSR-135

WATER REDUCING AND RETARDING ADMIXTURE

PRODUCT CATEGORY: POLYCARBOXYLIC ETHER BASED ADMIXTURE

PRODUCT DISCRIPTION

CIS CHEM HSR 135 is a new generation superplasticizer based on polycarboxylic ether along with advanced technology. It allows concrete to achieve stable workability for long duration is especially for concrete big job site area where require high workability retention without affecting early and long term strength

USES

CIS CHEM HSR 135 facilitates good water reduction, with optimum cohesion and workability as required, just by adjusting the dosage. It is used mainly to the following types of concrete:

- Precast concrete structures in general
- Precast concrete tunnel segments
- Pre-stressed concrete elements
- Post-tensioned concrete bridge segments
- Piles, foundations, retaining walls etc.
- Concrete with high water reduction that requires high workability, slump retention along with high early strength development
- Blocks and Interlocks

CHARACTERISTICS / ADVANTAGES

CIS CHEM HSR 135 acts by surface absorption on the cement particles producing sterical hindrance as well as electrostatic repulsion between cement particles which results in higher dispersion, flow and retention. CIS CHEM HSR 135 provides the following beneficial properties:

- Increased working time Early strength development resulting in economic stripping time for pre- cast and in cast-situe concrete
- High water reduction resulting in high density, high strength and reduced water permeability ▪ Excellent plasticizing effect giving improved flowability, placing and compaction behavior
- Improved surface finish
- Better shrinkage and creep behaviour
- Low risk of segregation Reduces energy costs for steam cured pre-cast elements
- Does not contain chlorides or other steel corrosion promoting ingredient

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PRODUCT INFORMATION

Composition	Aqueous solution of modified polycarboxylates, co-polymers
Packaging	250 KG
Appearance / Colour	Light brown to brown liquid
Shelf life	12 months from date of production if stored properly
Storage conditions	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +5 °C and +45 °C. Protect from direct sunlight and frost
Density	~1.12 GM/Ml (25 °C)
Total chloride ion content	Nil (EN 934-2)
Concreting guidance	The standard rules of good concreting practice for production and placing must be observed when using CIS CHEM HSR 135in concrete. Refer to relevant standards. Fresh concrete must be cured properly especially at high temperatures in order to prevent plastic and drying

APPLICATION INFORMATION

Recommended dosage	0.4 - 2.0 % by weight of binder Higher dosages by weight of binder can be used depending on the mix design, raw materials, climatic conditions and concrete requirements. Trial mixes must be performed to establish the exact dosage rate required.
Compatibility	CIS CHEM HSR 135 may be combined with all types of Portland cement We recommend to perform trial mixes to establish the required performance when combined with the above products. Please consult our CIS Technical Department.