

POLYHEED[®] 850

Non-chloride water reducing set accelerating admixture

DESCRIPTION

POLYHEED 850 is a ready to use liquid admixture formulated to provide water reduction and acceleration to the setting time of concrete under cold winter conditions. It provides high early strength in special application concrete not previously possible with water reducing admixtures. It does not contain added chloride and conforms to the most stringent chloride ion limits required by concrete industry standards. **POLYHEED 850** meets and exceeds AS 1478 Type Ac.

RECOMMENDED FOR

- all types of concrete where a non-chloride, water-reducing, set accelerating admixture is required
- concrete subject to chloride ion constraints such as in coastal environments
- improving the performance of plain reinforced, precast, lightweight or standard weight concrete
- concrete placed on galvanised steel floor and roof systems which are left in place
- concrete highway and bridge construction
- concrete pipes and other manufactured concrete products
- use in white or coloured concrete

FEATURES AND BENEFITS

Concrete with **POLYHEED 850** has a significantly faster setting time than plain concrete in cold conditions. Benefits to concrete construction and to the manufacture of concrete products because of this faster setting include the following:

In the plastic state:

- **earlier finishing of slabwork without the need for calcium chloride**
- **reduced segregation particularly in lean mixes and high slump concrete**
- **improved workability**
- **improved pumpability**
- **superior finishing characteristics for slab work**
- **reduced water content for a given workability**

In the hardened state:

- **increased strength gain in compressive, flexural and bond (concrete to steel)**
- **earlier stripping and re-use of forms for walls, precast work and other fast track construction**
- **earlier de-tensioning in prestressed concrete**
- **more efficient scheduling, faster construction and earlier occupancy**
- **potential energy savings in steam cured concrete by reducing curing temperatures and/or steaming time necessary to reach desired transfer strengths**

POLYHEED 850 contains no added chlorides, conforms to the most stringent chloride ion limits including AS3600 concrete structures code and will not initiate or promote the corrosion of reinforcing steel.

QUANTITY TO USE

POLYHEED 850 Admixture is normally used at a dose rate of 400mls per 100kg of cementitious material depending on the composition of the basic ingredients of the concrete and ambient conditions. **POLYHEED 850** can be used at 600mls per 100kg of cementitious material resulting in increased water reduction and faster setting rates especially when temperatures are below 10°C. Where greater acceleration under extremely cold conditions, or where rapid setting is required, **Pozzolith 555** accelerator can be used in conjunction with **POLYHEED 850** to provide the total non chloride accelerating admixture system.

COMPATABILITY

POLYHEED 850 can be used with air entraining admixtures and other BASF admixtures to achieve cost effective customised performance. However, all admixtures should be dispensed separately to the initial batching water to ensure complete distribution throughout the mix. **POLYHEED 850** should not be used in conjunction with other admixtures supplied by other manufacturers unless specific test information is available.

PACKAGING

POLYHEED 850 is available in sealed 205 litre drums and bulk delivery.

NOTE FOR TEST LABORATORIES

POLYHEED 850 is designed to perform best in cold weather concrete. Tests conducted in laboratories at 23° +/- 2° will not necessarily produce the degree of set acceleration that will be achieved in the field at lower temperatures.

PRECAUTIONS

POLYHEED 850 is stable in neutral and alkaline conditions. Avoid mixing or bringing it into contact with strong acids (such as hydrochloric/muriatic acid) in the presence of oxidising agents (e.g. hydrogen peroxide, nitrous acid compounds and sodium hypochlorite). Laboratory analysis involving degradation by strong acids or pre-treatment with oxidising agents should be performed in an efficient fume extraction cupboard.

For additional information on **POLYHEED 850** and its use in developing a concrete mix with special performance characteristics, contact your local BASF Technical Sales Representative.

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF **Material Safety Data Sheet (MSDS)** from our office or our website.



The Chemical Company

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APh850/6/0711

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF** publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by **BASF** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **BASF**, are responsible for carrying out procedures appropriate to a specific application.

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