

# POLYHEED<sup>®</sup> 1731

Mid range water-reducing admixture

## DESCRIPTION

**POLYHEED 1731** is a chloride free, mid range water reducing admixture. It is based on selected water soluble sulphonated polymers, each of which acts optimally on the various constituents of Portland cement. It is also effective on blended cements based on Portland cement and other materials such as Pozzolans, fly ash, and slags.

The use of **POLYHEED 1731** helps in the production of workable concrete with low water/cement ratios.

**POLYHEED 1731** meets the requirements of ASTM C494 for Types A and F admixtures.

### Workability

**POLYHEED 1731** increase the workability of concrete and the duration of workability retention considerably.

### Slump retention

**POLYHEED 1731** maintains workability of fresh concrete for a period of time. The duration of workability retention depends on the ambient temperature, types of cement and aggregates used, dosage rate and method of transportation.

### Compatibility

**POLYHEED 1731** is compatible with both water reducers and air entraining agents approved under ASTM specifications but it should be dispensed separately into the concrete mix. It should only be used with water reducer after specific testing at proposed dose rates, as certain combinations of dosages can result in extended retardation.

## FIELDS OF APPLICATION

**POLYHEED 1731** is especially suitable for concrete used in the construction of precast elements which requires good workability and high early and final strengths, such as :

- production of load bearing precast elements (e.g. bridge girders, piles, concrete housing)
- Construction of structures using travelling forms and slip forms.
- hot weather concreting
- insitu casting of structural elements

## FEATURES & BENEFITS

<b>High workability</b>	Short placement time. Saves time and labour.
<b>High water reduction</b>	High impermeability and strength. Improved durability.
<b>Superior cohesion</b>	No segregation even at high workability. Excellent concrete quality.
<b>High early strength</b>	Early demoulding. Shorter steam curing cycles.
<b>High elastic modulus</b>	Superior load bearing capacity.
<b>Low shrinkage</b>	Better dimensional stability and creep.

## APPLICATION

### Dispensing

Mix concrete using approximately 75% - 80% of the total mixing water to yield a stiff, damp and homogenous mix. Add **POLYHEED 1731** to the concrete at the specified dosage through a dispenser. Mix for at least 3 minutes. While continuing to mix, add the remaining water until the specified workability is obtained.

The use of fly-ash or silica fume can be beneficial in the production of very cohesive and self leveling concrete. Fly-ash or silica fume can be added along with cement.

## DOSAGE

Dosage depends upon the mix design, the ambient conditions and the degree of water reduction and workability required. Typical dosage used is 0.5 – 1.5 L per 100 kg cementitious materials. Site trials are recommended to fix the dosage.

## PACKAGING

**POLYHEED 1731** is supplied in 205 L sealed drum.

## SHELF LIFE

**POLYHEED 1731** can be kept for 12 months if stored at temperatures above 0°C, in tightly sealed original drums. If found to be frozen, thaw it and reconstitute by stirring.



The Chemical Company

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## PRECAUTIONS

**Health** : POLYHEED 1731 does not contain any hazardous substances requiring labelling. It is safe for use with standard precautions followed in the construction industry, such as use of hand gloves, safety goggles, etc.

For detailed Health, Safety and Environmental Recommendations, please consult and follow all instructions in the product Material Safety Data Sheet.

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### STATEMENT OF RESPONSIBILITY

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