

# MasterPolyheed 8875

New generation Poly Carboxylate Ether (PCE) based water reducing admixture

## Material Description

**MasterPolyheed 8875** is a versatile, robust and economical water reducing admixture based on a specially formulated modification of polycarboxylate ether chemistry. The product has been primarily developed for all types of normal and specialty concrete classes in the premix, precast and in situ concrete within the target slumps of 80 – 120 mm, providing workable and cohesive mixes with less water.

**MasterPolyheed 8875** has been specifically developed to enhance overall optimum performance in terms of water reduction, slump retention, compressive strengths & superior mix rheology, while maintaining control on extension of set retardation. **MasterPolyheed 8875** is ideally “robust” in lean concrete mixes and in concrete using manufactured sand.

**MasterPolyheed 8875** is chloride free and is compatible with all main types of cements and supplementary cementitious materials.

**MasterPolyheed 8875** conforms to AS 1478 Type WR.

## Areas of Application

- All types of concrete where a non-chloride water reducing admixture is required. eg - foundations, slabs, driveways, floor slabs, etc.
- Improving the performance of both pumped and conventionally placed concrete.
- Applications where good rheology, easier screeding and finishing are required.
- Mixes where optimum efficiency of mix water content and workability is required.

## Characteristics and Benefits

- Good dispersion in ordinary concrete mixes
- Improved workability retention at higher temperatures
- Improved pumpability resulting in lower pump operating pressures
- Reduced segregation particularly in lean mixes
- Normal setting characteristics under cool conditions allowing earlier finishing of slabs
- Reduced water content for a given workability
- Improved shrinkage

Chemistry and mechanism of action is what differentiates **MasterPolyheed 8875** from the traditional admixtures. A new, unique mechanism of action using the polycarboxylate ether (PCE) chemistry in **MasterPolyheed 8875** improves the effectiveness of cement dispersion coupled with rheology improvement. With this admixture, the polymers wrap around the cement granules at the very early stage of the concrete mixing process preventing flocculation of the binder. The sulphonic groups of the polymer chains increase the negative charge of the cement particle surface and disperse these particles by electrical repulsion.

This electrostatic mechanism causes the cement paste to disperse and has the positive consequence of requiring less mixing water to obtain a given concrete workability.

**MasterPolyheed 8875** has a different chemical structure from the traditional water reducers. It is based on the latest generation of carboxylic ether polymer technology from Master Builders Solutions, which is designed to offer the concrete producer a more robust & consistent performing admixture.

## Properties

|                  |               |
|------------------|---------------|
| Aspect           | Amber Brown   |
| Relative Density | 1.075 ± 0.010 |
| pH               | 10.0 ± 0.5    |
| NVM              | 20.3 ± 1.0    |
| Chloride Content | < 0.05%       |

## Quantity to Use

**MasterPolyheed 8875** is a neutral set versatile admixture with a dose rate between 250 and 400ml / 100 kg of cementitious material. An increase in dose rate results in an increase in water reduction or increase in workability which impacts set times marginally, apart from improved pumpability and rheological behavior of concrete. However, this is dependent on environmental conditions at time of addition.

The optimum dosage rate in each instance should be determined by correctly conducted trials using materials and conditions of use under the supervision of a Master Builders Solutions Technical Sales Representative.

# MasterPolyheed 8875

New generation Poly Carboxylate Ether (PCE) based water reducing admixture

## Dispensing

MasterPolyheed 8875 may be added to the mix with the initial batch water, although for the best results, MasterPolyheed 8875 should be added after the initial introduction of batch water to the cement.

## Compatibility

MasterPolyheed 8875 is not compatible with admixtures containing sulfonated naphthalene formaldehyde condensates (BNS). MasterPolyheed 8875 is compatible with all air entraining concrete admixtures, however the dosage of air entraining agent when added with MasterPolyheed 8875 may be altered to achieve required air entrainment. Initial lab and field trials are recommended to verify exact dose rates.

MasterPolyheed 8875 can be used in combination with other Master Builders Solutions admixtures to achieve cost effective performance; like addition with MasterPolyheed mid-range water reducers, MasterGlenium range of high range water reducers and both non-chloride (MasterSet AC 534) chloride based (MasterSet AC 102) accelerators.

Each admixture should be dispensed separately into the mix to ensure complete distribution throughout the mix. MasterPolyheed 8875 should not be used in conjunction with other admixtures unless specific test information is available or advised by Technical Sales Representative.

## Packaging

MasterPolyheed 8875 is supplied in 20 litre cubes, 1000 litre pallecons and bulk delivery.

## Storage & Shelf Life

Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Store protected against freezing. Protect from direct sunlight. MasterPolyheed 8875 has a shelf life of 12 months.

## Precautions

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

## Disclaimer

MasterPolyheed-8875-ANZ-V7-0723

### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this MB Solutions Australia Pty Ltd 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 and for ensuring that the application and use of the product is in accordance with the manufacturer's guidelines and recommendations.

### NOTE

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

### MB Solutions Australia Pty Ltd

ABN 69 634 934 419  
Unit 102, 2 Burbank Place  
Norwest NSW 2153  
Freecall: 1300 227 300  
www.master-builders-solutions.com/en-au

### MB Solutions New Zealand Ltd

45C William Pickering Drive  
Albany, Auckland  
New Zealand  
Phone: +64 9 414 7233

### Emergency Advice:

1300 954 583 within Australia (24hr)  
0800 001 607 within New Zealand

