

# MasterGlenium® 3280

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

## DESCRIPTION

**MasterGlenium 3280** is a robust and economical water reducing admixture based on a specially formulated modification of the latest polycarboxylate ether chemistry from BASF. 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 up to 120 mm, providing workable and cohesive mixes with less water.

**MasterGlenium 3280** 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. **MasterGlenium 3280** is ideally "robust" in lean concrete mixes and in concrete that uses manufactured sand and recycled materials.

**MasterGlenium 3280** is chloride free and is compatible with all main types of cements and supplementary cementitious materials.

**MasterGlenium 3280** conforms to AS 1478 Type WR.

## RECOMMENDED USES

**MasterGlenium 3280** is recommended for:

- All types of concrete where a non-chloride water reducing admixture is required. E.g. - foundations, slabs, driveways, floor slabs, etc.
- Applications where good rheology, easier screeding and finishing are required for pumped and conventionally placed concrete.
- A combination of water reduction and workability in concrete mixes.

## FEATURES AND BENEFITS

- Efficient dispersion of binders in ordinary concrete mixes.
- Improved workability retention at higher temperatures.
- Improved pump operating pressures.
- Greater cohesion control of lean mixes.
- Normal setting characteristics under cool conditions (i.e. winter in combination with accelerators) allowing earlier finishing of slabs.
- Reduced water content for a given workability.

A new, unique mechanism of action using the polycarboxylate ether (PCE) chemistry in **MasterGlenium 3280** improves the effectiveness of cement dispersion coupled with rheology improvement to effect improved hydration.

With this admixture, the polymers coat the cement grains at the start of the mixing process preventing flocculation of the binder. The negative charges on the cement particle surfaces help dispersion through electrical repulsion. This electrostatic mechanism causes the cement paste to disperse and helps to reduce mixing water to obtain a given concrete workability.

**MasterGlenium 3280** has a different chemical structure from the traditional water reducers. It is based on the latest generation of carboxylic ether polymer technology from BASF, which is designed to offer the concrete producer a more robust, versatile & consistent performing admixture.

## TYPICAL PROPERTIES\*

Appearance	Clear yellowish liquid
Specific Gravity @ 25°C	1.050 - 0.090
pH Value	8.5 - 10.5
Chloride Content	< 0.05%

## DOSAGE

**MasterGlenium 3280** is a neutral set versatile admixture with a dose rate between 250 and 400 ml / 100 kg of cementitious material. An increase in the above dose rate may result in increased water reduction, workability and/or set time and possible improved pumpability and rheology, however, this is dependent on mix design characteristics.

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 BASF Technical Sales Representative.



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## COMPATABILITY

**MasterGlenium 3280** is not compatible with admixtures containing  $\beta$ -naphthalene sulfonate condensates (BNS). **MasterGlenium 3280** is compatible with all air entraining concrete admixtures, however the dosage of air entraining agent when added with **MasterGlenium 3280** may need to be altered to achieve required air entrainment.

Initial lab and field trials are recommended to verify exact dose rates.

**MasterGlenium 3280** can be used in combination with other BASF admixtures to achieve cost effective performance; like addition with Polyheed mid-range water reducers, MasterGlenium range of high range water reducers. **MasterGlenium 3280** can be used effectively in combination with non-chloride (MasterSet AC 534) and chloride based (MasterSet AC 102) accelerators to reduce set times and bleed rates for winter concreting.

Each admixture should be dispensed separately into the mix to ensure complete distribution throughout the mix. **MasterGlenium 3280** should not be used in conjunction with other admixtures unless specific test information is available or advised by your local BASF Technical Sales Representative.

## PACKAGING

**MasterGlenium 3280** is available in 20L, 210 litre drums, 1000 litre IBCs or in bulk.

## 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.

Protect from temperatures below: 5 °C The packed product is destroyed at low temperatures or by frost.

Protect from temperatures above: 45 °C The packed product will be damaged by high temperatures.

**MasterGlenium 3280** has a shelf life of 12 months from date of manufacture.

## 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 BASF Safety Data Sheet (SDS) from BASF office or website.

## QUALITY AND RESPONSIBLE CARE

All products originating from BASF Construction Chemicals South Africa are manufactured under a management system independently certified to conform to the requirements of the quality (ISO 9001), environmental and occupational health & safety standards.

\* Properties listed are based on laboratory controlled tests.

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## 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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Revision Date: 04/08/2017

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