

# MasterEase 3559

## Low Viscosity Concrete Concept

New superplasticizer technology imparts advanced rheological properties delivering a significant decrease in the viscosity of concretes and extended rheology maintenance

### DESCRIPTION

The **MasterEase 3559** is a superplasticizer, high range water reducer from recent research work of R & D laboratories of Master Builders Solutions. The **MasterEase 3559** is designed to impart exceptional rheological properties to fresh concrete. It improves considerably the placing and finishing of concretes and enhances the ease of concrete pumping for all construction activities.

### INNOVATION

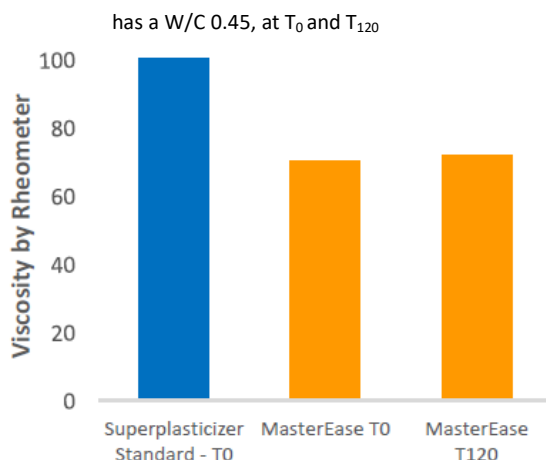
The **MasterEase 3559** is based on an innovative polymer chemistry and it is patented by Master Builders Solutions.

Its action differs from traditional superplasticizers, to the extent that the adsorption of polymers of **MasterEase 3559** on binder particles is provided by a flexible chemical bond which does not impede the flow of concretes. This innovation significantly improves rheological behaviour of concretes treated by **MasterEase 3559**, they have a low yield stress, low viscosity with additional feature fo long workability retention.

### LOW VISCOSITY CONCRETE

Low Viscosity Concrete is an innovative concept dedicated to the viscosity (rheology) of concretes. It is based on the use of **MasterEase** polymer with dedicated technical services of **Master Builders Solutions**. This concept not only allows the achievement of a significant reduction in concrete viscosity but also optimizing performance of concrete.

• viscosities of concrete S4



### FEATURES & BENEFITS

The **MasterEase 3559** is recommended for the production of self-compacting concrete requiring low viscosity, long workability retention and high compressive strength.

The **MasterEase 3559** is specially formulated for the concrete industry. It is also suitable for applications in the general Civil and building sites.

It can be used for the realization and achievement of the following:

- Precast and Site Mix concretes
- Superior Concrete pumping
- Reduction of Concrete waste
- Ease of compacting and finishing concrete
- High performance and ultra-high strength concrete
- Concrete for low environmental impact and high in mineral additions
- Architectural concrete
- Concrete complying to EN 206-1 / CN

### PROPERTIES

The **MasterEase 3559** delivers many advantages both in the fresh concrete on hardened concrete.

At fresh state, optimizing the rheology:

*Decrease in the viscosity of concretes at constant W/C*

- Improvement of the implementation of concretes
  - Improved pumping (lower pressure and longer distance)
  - Better response to vibration
  - Greater Ease of Pumping
  - Superior finishing, floating and smoothing operations
  - Excellent flexibility, mobility and flow of self-compacting concrete. **Reduction possible to the W/C ratio without affecting the viscosity of concretes.**
  - New windows for technical and economic optimization of concrete mix designs (addition and types of binder, choice of aggregates)
  - High strength and resistance to segregation
  - Good compatibility with all types of cement and mineral additions.

# MasterEase 3559

In the cured state, improvement of sustainability

- i. Excellent early and late compressive strength
- ii. Improvement of quality of surface finishes
- iii. As part of a reduction of W/C
  - Increased mechanical resistances
  - Decreased porosity and permeability
  - Decreased shrinkage and cracking
  - Enhanced durability

## APPLICATION

The optimal effect is generally achieved by dosing **MasterEase 3559** in the concrete mix after addition 70% of water in the mixer.

## DOSAGE

Recommended range: 200ml to 3000ml per 100kg cement.

For other uses, please contact your local Master Builders Solutions representative. To use in synergy and combination with another Master Builders Solutions' product range, please consult your local Master Builders Solutions representative.

## CHARACTERISTICS

Form	Liquid
Colour	Light Brown
Relative Density +20°C	1,070 ± 0,03 g/cm <sup>3</sup>
pH	6,0 ± 1,0
Mass chlorine content	< 0,1%
Solid Content	30,0% ± 1,5%

## PACKAGING

The **MasterEase 3559** is available in, 205L drum and bulk delivery.

## SHELF LIFE

**MasterEase 3559** has a 12 month shelf life from date of manufacture. It is recommended to stock it in temperature above +5°C.

## PRECAUTIONS

**Health: MasterEase 3559** 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 on the product Material Safety Data Sheet.

### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication is 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 commonwealth or State legislation. The owner, his representative or the contractor 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 Master Builders Solutions either verbally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Master Builders Solutions are responsible for carrying out procedures appropriate to a specific application.

**Master Builders Solutions Hong Kong Limited**  
 Unit 2, 20/F, EW International Tower, 120-124 Texaco Road, Tsuen Wan, New Territories, Hong Kong.

Tel: (852) 2408 4400  
 Fax: (852) 2408 4401