

# MasterFinish 790

Air-detraining admixture for concrete

## Material Description

**MasterFinish 790** air-detraining admixture is a patented liquid admixture formulated for use in concrete. **MasterFinish 790** facilitates a reduction in entrapped and, where applicable, entrained air content during mixing.

**MasterFinish 790** meets ASTM C 494/C 494M requirements for Type S, Specific Performance, admixtures.

## Areas of Application

- Concrete where a reduction in air content is desired
- Heavyweight concrete
- Interior flatwork concrete

*Air quality verification testing required for use in air-entrained concrete.*

## Characteristics and Benefits

- Reduces the air content of concrete mixtures
- Ready-to-use in the proper concentration for rapid, accurate dispensing
- Uses standard admixture dispensing equipment
- Helps to maintain design strengths of concrete mixtures
- Reduces the need to over-design concrete mixtures to offset the effects of higher-than-desired air contents
- Permits the use of normal dosages of air-entraining admixtures to achieve desired air contents
- Reduces rejected load potential
- Reduces the effect of higher-than-desired air contents on concrete bleeding
- Helps to improve the integrity of interior flatwork concrete

## Performance Characteristics

**MasterFinish 790** is formulated to reduce the total air content of concrete, as desired. In non air-entrained concrete applications, **MasterFinish 790** can be used to keep the air content of the fresh concrete below the industry-accepted limit of 3 percent.

In air-entrained concrete applications, **MasterFinish 790** can be used to reduce the total air content and bring it within specified limits. Additionally, **MasterFinish 790** can be added to a concrete mixture to permit the use of normal dosages of air-entraining admixtures to achieve the desired air content.

In air-entrained concrete applications, trial evaluations must be performed to verify the quality of the air-void system using industry accepted practices, such as petrographic examination of the hardened concrete or freeze thaw testing.

## Air Content Determination

The total air content of normal weight concrete should be measured in strict accordance with ASTM C 231, "Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method" or ASTM C 173/C 173M, "Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method." The air content of lightweight concrete should only be determined using the Volumetric Method. The air content should be verified by calculating the gravimetric air content in accordance with ASTM C 138/C 138M, "Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete." If the total air content, as measured by the Pressure Method or Volumetric Method and as verified by the Gravimetric Method, deviates by more than 1.5%, the cause should be determined and corrected through equipment calibration or by whatever process is deemed necessary.

## Dosage

The recommended dosage range for **MasterFinish 790** is 15 to 300 mL/100 kg cement, with most applications being in the range of 15 to 65 mL/100 kg cement. Dosage adjustments in increments of 7 to 15 mL/100 kg cement are generally adequate for providing a change in air contents. Because of variations in concrete materials, job site conditions and/or applications, dosages outside of the suggested range may be required.



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## Dispensing & Mixing

**MasterFinish 790** should be dispensed using direct-feed dispensing systems. It is recommended that fail-safe features must be included in this dispenser application for potential meter malfunctions. Consult your local sales representative for the proper dispensing equipment for **MasterFinish 790**. For best results, add **MasterFinish 790** with the initial mix water. Alternatively, **MasterFinish 790** may be added after all other concreting ingredients have been batched and thoroughly mixed, either at the batch plant or at the jobsite.

This can be achieved by backing the concrete up in the drum and dosing the **MasterFinish 790** on top of the concrete. This will facilitate carrying the admixture into the load. 4 litres of water to help wash **MasterFinish 790** into the concrete is permitted as long as the specified water-cementitious materials ratio is not exceeded. To ensure consistent and uniform results when **MasterFinish 790** is post-added to a concrete batch, it is important to provide sufficient mixing after the addition of the admixture. For truck mixing, a minimum of 30 to 50 revolutions (approximately 2 to 4 minutes) of the drum is recommended.

## Compatibility

**MasterFinish 790** works best when used in combination with other Master Builders Solutions admixtures. **MasterFinish 790** is compatible with most other admixtures used in the production of quality concrete including normal, mid-range and high-range water-reducing admixtures. **MasterFinish 790** is also compatible with typical accelerators, retarders, extended set-control admixtures, corrosion inhibitors, and shrinkage reducers. However, field trial mixtures are recommended to ensure appropriate performance.

## Packaging

**MasterFinish 790** is supplied in bulk, 1000 litre pallecons and 20 litre pails.

## Storage & Shelf Life

**MasterFinish 790** must be stored at temperatures above 0°C and below 45°C.

Protect **MasterFinish 790** from freezing because it cannot be reconstituted after thawing.

**MasterFinish 790** has a shelf life of 12 months after manufacturing.

## 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.



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## Disclaimer

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#### 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](http://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

