

# MasterMatrix® 110

High-performance viscosity modifying agent (VMA) for fluid concretes

## MATERIAL DESCRIPTION

**MasterMatrix® 110** is an innovative product. It is an aqueous solution of a high-molecular weight synthetic copolymer. Thanks to its tailored mode of action in concrete, **MasterMatrix® 110** imparts a level of viscosity within a mix enabling the right balance between fluidity, passing ability and resistance to segregation apparently opposing properties - to be achieved. The balance is lacking when the fluidity of the concrete is obtained by adding water.

**MasterMatrix® 110** is a key component to Master Builders Solutions for Highly Flowable Concrete or Self Compacting Concrete (SCC) for benefits in:

- Economy: Savings on fines (<0.125 mm), up to 40% faster placing and up to 5 times higher placing productivity.
- Ecology: Less fines - less CO<sub>2</sub>, and higher concrete durability.
- Ergonomic: Significantly reduces the need for compaction, reduces noise, reduces stickiness of the concrete mixture

## FIELDS OF APPLICATION

**MasterMatrix® 110** is optimized for use whenever an increase in mix viscosity would be advantageous, especially for:

- Highly Flowable Concrete or SCC (Self-Compacting Concrete) with a low fines content (material passing the 0.125 mm sieve)

## FEATURE AND BENEFITS

**MasterMatrix® 110** offers the following benefits to the concrete industry:

- Prevents segregation and bleeding
- Can be used with all types of cement
- Does not affect setting time
- Mixes are less sensitive to changes in water demand

## APPLICATION PROCEDURE

**MasterMatrix® 110** is a ready-to-use liquid admixture, which should be added to the concrete during the mixing process together with the water. This is particularly important in order to obtain maximum efficacy. For best performance it is advisable to continue mixing until the mix is completely homogeneous.

Appearance	Light brown to dark brown liquid
Specific gravity @25°C	1.009 g/cm <sup>3</sup>
pH-value @25°C	9.5
Chloride ion content	<0.1%

## DOSAGE RATE

**MasterMatrix® 110** is batched on the total of fines below 0.1 mm and is recommended between 0.1-0.5% by weight of fines. Other dosages may be recommended in special cases according to specific job site conditions. In this case please consult our Technical Service Department.

## COMPATIBILITY

**MasterMatrix® 110** is compatible with all types of cements. The rheological behavior induced by **MasterMatrix® 110** is optimized when used in combination with Master Glenium superplasticizer. It is incompatible for use with naphthalene sulphonate based superplasticizers.

To produce highly flowable concrete or SCC, **MasterMatrix® 110** needs be used in combination with a superplasticizer admixture of the Master Glenium range in order to guarantee maximum efficacy.

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## PACKAGING & STORAGE

**MasterMatrix® 110** is available in 205 litre drums, 1000 litre containers or in bulk.

## SHELF LIFE

12 months if stored according to manufacturer's instruction in original unopened packaging.

## STORAGE

**MasterMatrix® 110** must be stored at temperatures above 5°C. Store under cover, out of direct sunlight and protect from extreme temperatures. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For special storage advice consult our Technical Services Department.

## HANDLING AND TRANSPORTATION

No special requirements need to be observed while the product is used. Protection gloves and glasses are recommended. Do not eat, drink or smoke during the application. **MasterMatrix® 110** is nonflammable, non-toxic or irritant and is not subject to special transport requirements. **MasterMatrix® 110** is dilutable with water.

## HEALTH AND SAFETY

For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products. As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuff, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

## SPILLAGE

Chemical products can cause damage, clean spillage immediately.

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### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions 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 Master Builders Solutions either orally 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.

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