

# 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.

Smart Dynamic Construction: **MasterMatrix 110** is a key component to Master Builders Solutions' Smart Dynamic Construction concept 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: No vibration, no noise, low stickiness of the concrete mixture

### PACKAGING

**MasterMatrix 110** is available in 20L, 210 litre drums, 1000 litre IBCs or in bulk.

### TYPICAL PROPERTIES\*

Properties listed are for guidance and are not a guarantee of performance.

Appearance	Clear liquid
Specific gravity @25°C	0.980 – 1.030
pH value	6.0 – 8.0
Chloride ion content	<0.1%

### FIELD OF APPLICATION

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

- SCC (Self-compacting concrete) with a low Fines content (material passing the 0.125 mm sieve)

### FEATURES AND BENEFITS

**MasterMatrix 110** offers the following benefits for 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 to obtain maximum efficiency. For best performance it is advisable to continue mixing until the mix is completely homogeneous.

### DOSAGE

The recommended dosage rate is 0.1 to 0.5 litres per 100 kg of the cementitious binder. Other dosages may be used in special cases according to specific production conditions. In this case, please consult your local Technical Services Department.

### COMPATIBILITY

**MasterMatrix 110** is compatible with all types of cements. The rheological behaviour induced by **MasterMatrix 110** is optimised when used in combination with MasterGlenium superplasticizer. It is incompatible for use with naphthalene sulphonate based superplasticizers.

To produce highly fluid concretes or SCC, **MasterMatrix 110** needs be used in combination with a superplasticizer admixture of the MasterGlenium range in order to guarantee maximum efficiency.

### SHELF LIFE

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

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### 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 the Master Builders Solutions' Technical Services Department.

### 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 foodstuffs, (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.

### HANDLING AND TRANSPORTATION

No special requirements must 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 non-flammable, non-toxic or irritant and is not subject to special transport requirements. **MasterMatrix 110** can be diluted with water.

### NOTE

Technical support, where provided, does not constitute supervisory responsibility. For additional information contact your local MB Construction Chemicals Solutions South Africa (Pty) Ltd representative. MB Construction Chemicals Solutions South Africa (Pty) Ltd shall not be liable for technical advice provided.

MB Construction Chemicals Solutions South Africa (Pty) Ltd reserves the right to have the true cause of any difficulty determined by accepted test methods. Undertaking such tests is not, and shall not be deemed to be, an admission of liability or an assumption of any risk, loss, damage or liability.

### QUALITY AND RESPONSIBLE CARE

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

\* Properties listed are based on laboratory controlled tests.

### DISCLAIMER

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