

RheoMATRIX[®] 110

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

Description of Product

RheoMATRIX 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, RheoMATRIX 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:

RheoMATRIX 110 is a key component to BASF's 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 CO₂, and higher concrete durability.
- Ergonomic: No vibration, no noise, low stickiness of the concrete mixture

Packaging

RheoMATRIX 110 is supplied in 210 litre drums, 1,000 litre containers or in bulk.

*Technical Data/Typical Properties

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

Fields of Application

RheoMATRIX 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

RheoMATRIX 110 offers the following benefits for the concrete industry:

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

Application Procedure

RheoMATRIX 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.

Dosage Rate

RheoMATRIX 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 Services Department.

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Compatibility

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

To produce highly fluid concretes or SCC, RheoMATRIX 110 needs be used in combination with a superplasticizer admixture of the GLENIUM range in order to guarantee maximum efficacy.

Shelf Life

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

Storage

RheoMATRIX 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 must be observed while the product is used. Protection gloves and glasses are recommended. Do not eat, drink or smoke during the application. RheoMATRIX 110 is nonflammable, non-toxic or irritant and is not subject to special transport requirements. RheoMATRIX 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 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.

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* Properties listed are based on laboratory controlled tests.

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