

TECHNICAL DATASHEET

BETONMIX® HP 1211 A

About Product

BETONMIX® HP 1211 A is a new generation superplasticizing concrete additive based on a modified polycarboxylate with a high water reduction degree, which increases the early and final strength of concrete.

Conforms to EN 934-2, tables 3.1, 3.2, and 11.2.

AZS 221-2006

Product code: 207.60032

Application Areas

- In concretes requiring high early and final strength
- In prefabricated and precast concrete
- In concretes where low water-cement ratio and high strength and workability are required
- In dense, hardly spread concretes
- In concrete applications requiring a dense, waterproof, and even surface
- In self-hardening concretes
- In concretes requiring early demoulding

Advantages

- Suitable for different types of cement
- Increases the early and final strength of concrete
- Keeps concrete flowing for a long time, improves workability, and ensures easy spreading without vibration
- Ensures the production of dense, waterproof, and high-strength concrete due to its perfect ability to reduce water content
- Ensures the production of rheoplastic concrete with a low risk of shrinkage and cracking at a low water-to-cement ratio
- Reduces labor costs, ensures saving
- Ensures smooth surfaces
- Increases the frost and heat resistance of concrete
- Does not contain chlorine and therefore, does not pose damage to reinforcement steel

Technical Specifications

Composition of material	Based on modified polycarboxylate
Colour	Yellow, dark-yellow
Density (ISO 758)	1.05-1.09 kg/L
Chlorine content % (EN 480-10)	< 0,1

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Alkali content % (EN 480-12) < 5,0

The above figures are valid for +20°C and relative humidity of 50%.

Application Guidelines

Polymer chains significantly stabilize the ability of cement particles to separate and spread. This ensures high concrete fluidity at low water demand. However, to ensure a uniform effect, **BETONMIX® HP 1211** should be added to the mix after pouring 70% of the required water into the concrete, together with the remaining water. To ensure the mix stability, stir it for a time determined by laboratory tests (at least 90 s).

Content

BETONMIX® HP 1211 A can be used at a ratio of 0.4 to 2% of the binder (cement, micro-silica, fly ash, slag), depending on the desired concrete properties. It is recommended to use proportions predetermined by laboratory tests according to the grade and specifications of the concrete to be produced.

Compatibility with other additives

- **BETONMIX® HP 1211 A** can be used in all EN 197 cements.
- It can be used with BETONMIX® RPD, BETONMIX® RCA, BETONMIX® ANTIFREEZE 1, BETONMIX® PROOFING, and BETONMIX® AIR 80 additives.
- It can be used in combination with steel and synthetic fibers used to control cracking caused by reduced plasticity.
- It can be used with mineral additives such as fly ash, micro-silica, and slag.
- Do not use it in combination with NSF-based (Naphthalene Sulfonate) concrete additives.
- Before use with other additives, perform compatibility tests.

Issues Requiring Attention

- **BETONMIX® HP 1211 A** should be added to the concrete mix water and not the dry cement or dry mix. Otherwise, the additive will be absorbed without distributing evenly in the mix, thereby negatively affecting the concrete class and properties due to the increased water demand of the mix.
- When using more the additive than the recommended dose, the concrete hardening time may increase depending on the air temperature. When the hardening time increases, the concrete should be kept moist until it takes the required shape.
- Before use, perform compatibility tests in the laboratory.
- When adjusting the concrete consistency, consider the waterproofing properties of the additive and do not add excessive water to the mix.
- Frequently monitor the changes in factors affecting the dosage.
- Before use, perform compatibility tests according to the concrete components and class.

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Storage Conditions

Store at +5 to +35°C in a sunproof place. If the product is frozen, unfreeze it at room temperature without direct heating and mix until homogeneous.

Shelf Life

Under proper storage conditions 12 months from the date of manufacture. Lids of opened containers can be re-closed and used until the expiration date.

Safety Measures

During the application wear work clothes and use protective gloves, glasses, and a mask according to the working conditions and occupational safety requirements. Due to the irritant effect of the material, avoid contact with skin and eyes; in case of contact, immediately wash the contact area with plenty of water and soap; in case of ingestion, seek medical advice immediately. Food products should not be allowed in the material application areas. Store out of reach of children. For more details, please see the Safety Datasheet.

Liability

Our company shall only be liable for the product quality. Our company shall not be liable for any use of the product in breach of written guidelines and/or improper use. For more details, please request a product manual or contact our company's responsible officials.



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