HEMIXGROUP

FOR REINFORCED CONCRETE

With the help of HEMIX GROUP additives and our assistance, our customers achieve performance, significantly reduce labor costs, save resources, and improve product quality.

HEMIX HS

Complex additive for reinforced concrete structures and products with rapid strength development effect

HEMIX HS is based on polycarboxylate ethers with components that enhance concrete flowability. The product significantly improves stiff concrete workability and increases early strength development.

This additive serves as a superplasticizer, stabilizer, early strength accelerator, and water reducer, enhancing the frost resistance and waterproofing qualities of products. HEMIX HS meets the requirements of GOST standards 24211-2008 “Admixtures for concretes and mortars. General specifications.”

Appearance:
Transparent aqueous solution, whitish yellow color

Predicted concentration:
100%

Density (at 20 °C):
1.1 ± 0.02 g/cm^3

pH (at 20°C):
7.9

Maximum Chloride Ion Content:
<0.1%

Application

HEMIX HS is a universal additive suitable for producing reinforced concrete with high-performance standards, particularly in industrial production environments.

The product can be used for concrete that contains pozzolanic additives.

Advantages

With quite low raw material costs, HEMIX HS enables:

- Achieving the necessary characteristics in mixtures with lower water-cement ratios
- Increasing early stripping strength during steam curing and under natural conditions
- Accelerating early strength development
- Enhancing the concrete surface quality
- Increasing mold reusability
- Reducing energy consumption during steam curing
- Increasing segregation resistance

Air entrainment achieves 2.3-4.4%.

up to 25%
less cement used

+4 grades
and more to water resistance

+50
and more freeze-thaw cycles

Reduced cement consumption helps reduce exothermic reactions, minimizing the risk of thermal cracking.

A lower water-cement ratio stabilizes the concrete mix, minimizes shrinkage, and enhances productivity in precast concrete plants.

Enhanced frost and water resistance extend the service life of reinforced concrete products.

A wide range of chemical additives helps optimize every aspect of concrete production: from improving physical properties to enhancing product durability and reducing production costs.

All additives are produced at HEMIX GROUP’s modern plants located in the Far East region. We guarantee high quality and compliance with the required standards.

We understand that additives are merely a part of concrete production. Effective technical support is just as essential for key processes.

To unlock the full potential of our products, we provide complete technical support services for plants manufacturing ready-mix concrete, reinforced concrete, vibro-pressed products, and more.

HEMIXGROUP

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Our extensive experience and professionalism allow us to tackle tasks of any level and provide the highest production efficiency.

HEMIX HS

Mechanism

The additive molecules adsorb onto cement particles, facilitating rapid dispersion due to electrostatic and steric repulsion. Thus, HEMIX HS accelerates cement hydration.

Simultaneously, it increases the surface contact with water and triggers early heat release and rapid formation of hydration products, resulting in early strength development. This advantage can be used if one needs lower temperatures and shorter steam curing times.

The additive allows for concrete placement in densely reinforced or complexly shaped structures without vibrators, as the mixture flows to self-compact and expel trapped air.

Additionally, HEMIX HS does not contain chloride ions and does not cause steel reinforcement corrosion.

Application Method

1. Shake or mix the additive before use.
2. Add to the concrete mixture after adding the necessary amount of water.
3. Ensure adequate mixing time after the additive is introduced.

⚠ **NOTE: Do not add to the dry mixture.**

Dosage

Should be added to the mix at the rate of 0.65-1.45% of the cement weight.

The precise dosage depends on concrete specifications and is determined through laboratory testing.

Compatibility

To achieve A1-grade surfaces and protect metal molds from corrosion, HEMIX HS is best used with the HEMIX CLEARFORM release agent.

Packaging

1 000 kg containers

220 kg drums

Smaller containers **(5 – 20 kg)** are also available for laboratory and field trials

Transportation

Non-flammable and non-toxic product.

No special transportation requirements

⚠ Precautions

- Use protective gloves when working with the additive
- In case of skin contact, rinse with water
- Avoid contact with mucous membranes. In case of contact, rinse thoroughly with water

Shelf Life: 12 months

Store in closed containers at temperatures above +5 °C. Avoid direct sunlight and protect from high temperatures.

Product properties may alter before the expiration date if the storage guidelines are not followed.

CONSTRUCTION INNOVATIONS BEGIN WITH HEMIX GROUP