ARIT奥莱特

PRODUCT DATA SHEET

ART- VM

Viscosity Modifier

Description

ART-VM is a water-based polymer viscosity modifier that can adjust the plastic viscosity and yield stress of concrete, effectively addressing issues related to concrete workability such as segregation and bleeding. When used in combination with water reducers, it can significantly enhance the pumpability of concrete and improve the coating of aggregates by the cement paste.

Main benefits/Characteristics

- **Excellent Workability:** Slightly increases concrete viscosity, markedly improving workability to meet the demands of diverse placing conditions.
- **Strong Anti-Bleeding Action:** Effectively suppresses segregation and bleeding of bleed-prone materials, ensuring concrete uniformity and stability.
- **High Anti-Adsorption Performance:** Inhibits excessive adsorption of superplasticizer by cement particles, maintaining sustained dispersion even with aggregates high in silt or fines.
- **Low Sensitivity to Admixture Dosage:** After addition, concrete shows reduced sensitivity to admixture dosage across a wide range, giving high controllability.

Applications

- Bleeding and segregation prone concrete
- Ordinary ready mixed concrete
- Pumped concrete

- Precast concrete

Physical and chemical indicators

Items	Performance
Appearance	Colorless transparent liquid
Solid Content /%	10±0.5
pH	2.5±1
Alkali content (as Na_2O)	⩽5.0%
Density /g/cm³	1.02±0.02
Chloride content	⩽0.1%

Application Case

- Bleeding- and segregation-prone concrete

A certain commercial concrete company used discontinuous graded sand, which led to difficulties in concrete pumping and frequent blockages of the pump. After using ART-VM viscosity modifier, the cohesiveness of the concrete was significantly improved, and the pumping efficiency was notably enhanced.

Usage Instructions

- The recommended effective solids content is 0.01 % – 0.08 % of the total cementitious materials; the exact dosage must be predetermined through trial tests according to the raw materials, job-site conditions, construction codes, and technical requirements.
- Any change in materials or environmental conditions may also cause the dosage to vary within a certain range, so new tests are required to re-establish the optimum dosage.

Complies with the Following Standards

T/CECS 10157-2021

ASTM C494 TYPE S

EN934-2

Packaging

IBC tank/liquid bag/tank truck

Storage

- It should be stored in a cool and dry place, avoiding direct sunlight, and kept in a dedicated warehouse or a fixed location.

- The effective storage period is 1year. It can still be used after being tested and verified to be qualified if it exceeds the time limit.

Precautions

- When changing the type of cement or using newly delivered cement, a compatibility test should be conducted.
- Do not use in combination with naphthalene-based admixtures. When using in combination with other admixtures, compatibility tests should be performed.
- Strictly follow the construction specifications during application.
- The product information is only used to describe the product's characteristics and functions, and it is not a guarantee. Users are also required to carefully test the product's functions and its suitability. The functions and suitability of the product must be verified through testing conducted by qualified professionals.

Legal Notes

- Retaining or disclosing product samples without the company's explicit permission is strictly prohibited.
- In addition to the product quality itself, the actual performance also depends on other uncontrollable factors. If there are uncontrollable factors, company cannot guarantee the performance of the product.
- Users are requested to strictly follow the technical guidance and product instructions for use. The company shall not be liable for any consequences resulting from unauthorized changes to the product usage method without the company's authorization.