

PRODUCT DATA SHEET

ART- M630

High Slump Retaining Polycarboxylate Superplasticizer

Description

The ART-M630 is a high-performance, independently developed superplasticizer based on a hexacarboxylic acid ester system, engineered by ARIT. It offers extended slump retention, a gradual release rate, and superior compatibility with a wide range of cement types and blended materials. This product is designed to meet the demands of various construction projects, including both commercial and residential buildings, by improving multiple concrete performance parameters and significantly enhancing the workability of fresh concrete.

ART-M630 is particularly effective under extreme high-temperature conditions, with a release time exceeding 5 hours. It exhibits a low sensitivity to dosage variation, allowing for precise control during application. The product also boasts excellent air-entraining properties, which considerably improve the mechanical strength and durability of the concrete. When compared to other similar products, ART-M630 demonstrates exceptional cost-performance advantages and superior technical specifications.

Main benefits/Characteristics

- **Long Slump Retention:** At higher dosages, the slump loss is negligible even after 4 hours. This ensures the workability of the concrete during long-distance transportation and pumping, without affecting the normal setting of the concrete.
- **Good Workability:** Under high slump conditions, there is no noticeable segregation or bleeding, and the concrete maintains a uniform appearance. When used in the

formulation of high-strength concrete, it provides excellent workability and cohesiveness, facilitating easy mixing and pouring.

- **Low Air Content:** The concrete has an air content of less than 3%, which, while maintaining good durability, enhances the concrete's density and improves its strength and resistance to corrosion.
- **Wide Compatibility:** It can be effectively combined with a variety of other admixtures, enhancing its performance, and shows excellent compatibility with different types of cement and supplementary materials.
- **High Strength Gain Rate:** It promotes a higher strength gain rate, improves shrinkage performance, and reduces the carbonation rate of the concrete.
- **Low Concrete Shrinkage:** It significantly reduces concrete shrinkage, greatly improving the stability and durability of the concrete.
- **Excellent Product Stability:** The product retains uniform color during low-temperature storage, with no signs of separation, flocculation, or sedimentation.
- **Environmentally Friendly:** The product is non-toxic and harmless, making it an eco-friendly solution that supports sustainable development.

Applications

- Ordinary commercial concrete and pumped concrete in high-temperature environments
- Concrete with ultra-long construction time requirements
- Concrete with long transportation requirements
- Self-compacting concrete and large-volume concrete
- Concrete for bridges, highways, and railways.

Physical and chemical indicators

Items	Performance
Appearance	Colorless and transparent liquid
Solid Content /%	45±1
pH	6.0±1.0
Density/g/cm ³	1.08±0.02
Alkali content (as Na ₂ O)	≤1.0%
Chloride content	≤0.01%

Recommended Dosage

The recommended dosage is 1.0% to 5.0% of the total admixture.

Environmental conditions and raw material temperatures may cause some variation in the dosage within this range. It is recommended to conduct trial mix tests before use to determine the optimal dosage.

Packaging

Drums or flowbins for customer demand

Storage

Store in a cool, dry place, away from direct sunlight, in a designated warehouse or fixed location.

The product has a shelf life of 1 year. If the shelf life is exceeded, it can still be used after testing and verification.

LEGAL NOTES

It is prohibited to retain or disclose samples of the product without the company's permission.

In addition to the product quality itself, the actual performance also depends on other factors.

If there are factors beyond our control, we cannot guarantee the performance of the product.

Users are requested to strictly follow the technical guidelines and product instructions for use. The company shall not be held liable for any consequences resulting from unauthorized changes to the product's usage without the company's authorization.