

## PRODUCT DATA SHEET

# ART- AC

## Early-Strength Agent

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### Description

ART-AC can significantly shorten the setting time without affecting the workability of concrete, while greatly accelerating the early strength development of the concrete mixture. This industry-leading product is designed and developed based on the theory of early hydration crystallization nucleation of cement. It is suitable for premixed and precast concrete of various strength grades and has no adverse effects on the mechanical and durability properties of concrete. When using this product series in the production of precast segments and components, rapid mold turnover can be achieved with room temperature curing; for high-strength precast components like PHC pile concrete, the use of this product series can eliminate the need for high-pressure steam curing, significantly saving maintenance costs and reducing carbon emissions.

### Main benefits/Characteristics

- Increases early strength (1 day) by more than 40%.
- Suitable for use in ready-mix concrete, segments, precast components, and other concrete products.
- Shortens demolding time, enhancing production efficiency.
- Significantly reduces energy consumption in production; products can be cured without steaming, mitigating or avoiding the negative impacts of steam curing on product durability. Effectively aids in achieving green production of products and meets environmental protection requirements.

### Applications

- Subway Shield Tunnel Segments
- Precast Piles
- Modular Construction
- Concrete for Low-Temperature Construction
- Precast Concrete Components
- Commercial Concrete
- Engineering Concrete

- Steam-Curing-Free Concrete

## Physical and chemical indicators

| Items                                 | Performance            |
|---------------------------------------|------------------------|
| Appearance                            | Milky-white suspension |
| Solid Content /%                      | 14±0.5                 |
| pH                                    | 11.0±1.0               |
| Alkali content (as Na <sub>2</sub> O) | ≤10%                   |
| Chloride content                      | None                   |

## Recommended Dosage

0.1% to 2.0% weight of binder

Pre-testing must be performed to determine the exact dosage

## Packaging

IBC tank/liquid bag/tank truck

## Storage

Store in undamaged, original sealed packaging in dry conditions.

Protect product from direct sunlight

A minimum shelf life of 12 months under normal storage conditions. Shelf life may be greater than stated depends on storage conditions.

## 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.