

PRODUCT DATA SHEET

ART-SL15

High Strength Alkali-free Liquid Accelerator

Description

ART-SL15 is a high strength alkali-free liquid accelerator which has the advantages of rapid setting, good early strength, strength enhancement, micro-expansion, crack resistance, impermeability and corrosion resistance. It is non-toxic, non-flammable, non-corrosive to steel and harmless to human health. It is a high-performance alkali-free shotcrete accelerator used in the wet-mix spraying process and is particularly useful for rapid-hardening concrete and quick-setting concrete. It has good early strength and long-term strength retention rate. Compared with the main accelerator products on the market, it has obvious advantages in technical performance index and cost performance. ART-SL15 admixture meets the requirements of Chinese national standard GB/T 35159-2017 《Flash setting admixtures for Shotcrete》 and America standard ASTM C1141/C1141M-08.

Main benefits/Characteristics

- Low dosage: 6~9% of cement materials, remarkable setting performance, short interval between initial and final setting time.
- Good early strength development and continual early strength development. 1d strength of mortar exceeds 18MPa, 28d compressive strength ratio is up to 100~110%, 90d compressive strength retention rate is up to 100~120%.
- Excellent spraying effect, fast setting hardening, small rebound(<10%) and less consumption.
- Slight compensated shrinkage function, prevent cracking after molding.

- No alkaline substance, low Chloride content, no bad effect on the durability of concrete.
- Little dust and non-irritating smell contribute to a better working environment.
- Green product, non-toxic and harmless in production process, conducive to sustainable development

Applications

- Underground engineering: mine roadways, traffic tunnels, hydraulic tunnels, underground railways and all kinds of underground tunnels(underground power station, warehouse, etc.) of the supporting lining of the shotcrete.
- Rock engineering :support in wall slopes, excavations, embankments, reservoir engineering , water channels, etc.
- Repair and reinforcement works: bridges, seawalls, repair dams, docks, cooling towers, chimneys and the reinforcement of buildings, and the chemical corrosion of oilfields, the building structure repair such as fires, earthquakes, explosion shock overload or poor construction, etc.
- Protection engineering : all kinds of structure of the fire and corrosion protection, as well as waterproof and plugging engineering.
- Fire resistant engineering : the construction and repair of the chimneys and various thermal furnace pits.

Physical and chemical indicators

Items	Performance
Appearance	milky yellow liquid
Solid Content /%	50.0±2.5
pH	3.0±1
Alkali content	≤1%
Chloride content	≤0.1%

Recommended Dosage

- Dosage: 6%~9% of the cementing materials. The dosage can be adjusted according to

the requirements of cement, temperature and construction technology, etc.

- The dosage must be in accord with the proportion of mixture. Construction should be strictly conducted according to the operation of the construction specification.
- When spraying, it is essential to operate according to the specifications, paying attention to the uniformity, smoothness, and compactness of the spray.
- When combining with other admixtures, the compatibility should be tested.
- Appropriate concrete curing is necessary according to engineering conditions and requirements.
- Works very well with: membrane pumps, rotor-stator pumps, peristaltic pumps, gear pumps. Do not use with: piston pumps, all pumps with ball and seat valves, pressure tanks.
- The construction temperature should be controlled above 5°C to avoid the influence of low temperature on product performance.
- Containers must be tightly closed every day to avoid contact with air which can cause a chemical reaction (skin building on top and lumps which cause problems with dosing pumps).

Packaging

Plastic barrels, drums or tank containers etc. can be used to transport

Or special packaging for users' requirements

Storage

Store in undamaged, original sealed packaging in dry conditions.

Protect product from direct sunlight.

Storage temperature is 5°C-35°C

A minimum shelf life of 3 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.

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