

UNDERTON AF S1

Alkali-free, liquid set accelerator for sprayed concrete

DESCRIPTION

UNDERTON AF S1, is a high performance alkali-free set accelerator for sprayed concrete.

USES

- Temporary and permanent ground support in tunneling and mining
- Rock and Slope stabilization
- Suitable for acceleration of cementitious grouts, such as for annulus grout in TBM tunnels, cemented ground injection and foam concrete

CHARACTERISTICS

UNDERTON AF S1 can be used with any kind of concrete. The acceleration effect of UNDERTON AF S1 depends on the type of cement, its dosage and age, surface temperature, the layer thickness, the spraying process and equipment.

- High early strength
- Lower rebound when correct nozzle angle and distance are provided.
- This product enhances adhesion between shotcrete, rock and concrete, facilitating superior applications.
- Enables a safe working environment, minimizes environmental impacts and reduces operating costs.
- Chlor free

FIELD OF APPLICATION

- The dosage of UNDERTON AF S1 admixture normally ranges from 3% to 9% of the binder weight.
- The correct dosage must be determined by preliminary testing.

STANDARDS

- ASTM C 1141 Type II
- TS EN 934-5 Chart 2

PRODUCT DATA

Chemical Base: Special inorganic blend of materials.

Appearance : Suspension

Density (20 °C) : 1.44 ± 0,03 Kg/L

pH (20 °C) : 2,5 ± 0,5

Alkali Content : ≤ %1 (TS EN 480-12)

Chloride ≤ % 0,10 (EN 480-10)

Viscosity (20 °C) : 600 ± 400 cps

STORAGE CONDITIONS AND PACKAGING

- Must be stored at minimum +5 °C and maximum +35 °C (optimum temperature for storage and performance +20 °C).
- Has to be kept in closed containers made of plastic, glass fiber or stainless steel.
- Must not be stored in normal steel containers.
- Storage in bulk tanks requires the use of agitation and / or circulation systems.
- After prolonged storage or transport we recommend to fully agitate it prior to use by mechanical stirring or re-circulation pumping.
- If stored in tightly closed original containers under the above conditions, it has a shelf life of 6 months. Periodical remixing can extend the shelf life further.

COMPATIBILITY

UNDERTONE AF S1 is not compatible with Superton and Politon Series of Polisan Chemical Admixtures

UNDERTONE AF S1 can be used with all types of cement according to TS EN 197-1 standard. It is recommended to apply to the technical support of Polisan Kimya for use in special cement types.

SAFETY INFORMATION

UNDERTONE AF S1 is corrosive and provokes burns and serious damage to the eyes. Always wear suitable protective gloves, goggles and clothing. If the product comes into contact with the skin or eyes, rinse immediately with water and seek medical advice.

For more detailed information, please refer to the material safety data sheet (MSDS) of the product.