

INGUNIT T

*Admixture for sprayed concrete - Shotcrete, alkali based accelerator of setting
In compliance with: EN 934-5*

FIELD OF APPLICATION

Preparation of Sprayed concrete – *Shotcrete*, used for construction of primary lining in tunneling (wet shotcrete treatment), stabilization of slopes, mining etc;

Preparation of Sprayed mortar used for reparation of concrete structures with curved and irregular forms, such as domes, etc.

With careful dosing it can also be used as admixture for controlled acceleration of setting in classical concretes, usually for production of prefabricated concrete elements;

PROPERTIES

Intensive acceleration of setting concretes and mortars;

Getting high early strength characteristics;

Improves application of sprayed concrete and mortar;

Enables application of sprayed concrete on vertical, inclined and ceiling surfaces;

Reduces the rebound of material during spraying;

TECHNICAL FEATURES

PROPERTY	METHOD	DECLARED VALUE
Appearance	Visual	transparent to light brown liquid
Density (at 20°C)	ISO 758	(1.49±0.03) g/cm ³
pH-value (at 20°C):	ISO 4316	13±1
Chlorides content:	EN 480-10	≤0.1%
Alkali content:	EN 480-12	≤25.0%

DOSAGE AND PERFORMANCE:

For production of Shotcrete, recommended dosage of Ingunit-T is 2 to 6%, in relation to cement mass. Dosing percentage depends on the acceleration time which need to be achieved, consistency of concrete, type and quantity of cement, temperature conditions, rock category, inclination etc. For construction of primary tunnel lining, dosage for sprayed concrete used for concreting the calotte section of the tunnel is usually 4%, while for the tunnel bottom part dosing is much lower. Ingunit-T is added automatically, with admixture pump, at the exit part of the hose which is used for spraying. When used as accelerator for classical concretes, Ingunit-T is added immediately prior to concrete casting, directly into the ready-mixed concrete, mixing and placement are fast, since there is a risk of quick setting. Dosage is up to 1%. In this case, concrete pump should not be used.

Prior to its application, it is necessary to perform preliminary test in order to define dosage in correlation with required time of setting, in real temperature conditions and application equipment (shotcrete pump).

Effects of overdose: Overdosing Ingunit-T can cause fast setting of concrete, and decrease of final strength characteristics. For production of classical concrete, overdosing Ingunit-T can cause setting of concrete in the mixer or during pumping, which can cause damage to the equipment.

Protection measures: Due to the alkali-base nature of the admixture Ingunit-T, it can cause health hazard if not handled properly. For these reasons it is necessary to use personal protection equipment when handling

Ingunit-T (protective glasses, gloves, mask), as well as implementing measures declared in the Material Safety Data Sheet.

COMPATIBILITY

Ingunit-T is compatible with a number of admixtures of ADING production program. If in the concrete mixture two or more admixtures are used, it is necessary to perform preliminary tests. Different admixtures are batched separately, and they are not intermixed with each other prior to insertion into the concrete mixture. Ingunit-T is compatible with all types of Portland cements and sulfate resistant cements.


PACKAGING

Plastic cans: 7 and 28 kg
Containers: 1500 kg

STORAGE

In the original packaging, at temperature between 5°C and 35°C. Shelf life: 12 months.

CE MARKING

 2032	
ADING AD Skopje, Novoselski pat (ul 1409) br.11 1060 Skopje, North Macedonia 14 GAGA001/5 EN 934-5:2007 INGUNIT T Alkaline set accelerating admixture for sprayed concrete EN 934-5:T2	
Chloride ion content	≤ 0,1% by mass
Alkali content	≤ 25,0% by mass
Corrosion behaviour	Contains components only from EN 934-1:2008, Annex A.1

Health hazard: When handling Ingunit-T it is obligatory to use personal protection equipment - protective glasses, protective gloves, respiratory mask. Space where Ingunit-T is used must be properly ventilated. In case of contact with the skin it must be cleaned with clean running water. In case of contact with the eyes cleaning is required with a lot of clean running water and medical assistance must be asked for immediately. If swallowed, a lot of water or milk must be consumed, and medical assistance must be immediately requested. Additional formations are provided in Material Safety Data Sheet for the material.

Fire: Ingunit-T is a non-flammable liquid. Additional formations are provided in Material Safety Data Sheet for the material.

Cleaning and deposit: Ingunit-T is cleaned with water. Old and used packaging must be disposed according to local regulations for that type of waste. Additional formations are provided in Material Safety Data Sheet for the material.