

# INGUNIT T EKO

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

## FIELD OF APPLICATION

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

Preparation of Sprayed mortar used for reparation of concrete elements 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 material during spraying;

## TECHNICAL FEATURES

PROPERTY	METHOD	DECLARED VALUE
Appearance	Visual	transparent to yellow liquid
Density (at 20°C)	ISO 758	(1.39±1.45) g/cm <sup>3</sup>
pH-value (at 20°C):	ISO 4316	3±1
Chlorides content:	EN 480-10	≤0.1%
Alkali content:	EN 480-12	≤1.0%

## DOSAGE AND PERFORMANCE:

For production of Shotcrete, recommended dosage is 3 to 9%, 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 6-7%, while for the tunnel bottom part dosing is much lower. Ingunit T EKO 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, recommended dosage is 1-2%, and Ingunit T EKO 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. 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 time of setting, in real temperature conditions.

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

## COMPATIBILITY

Ingunit T EKO 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 EKO is compatible with all types of Portland cements and sulfate resistant cements.


## PACKAGING

Plastic cans: 28 kg  
Containers: 1400 kg

## STORAGE

In the original packaging, at temperature between 5°C and 35°C. Shelf life: 6 months.

## CE MARKING

 2032	
ADING AD Skopje, Novoselski pat (ul 1409) br.11 1060 Skopje, North Macedonia 14 GAGC001/6 EN 934-5:2007 <b>INGUNIT T EKO</b> Non-alkaline set accelerating admixture for sprayed concrete EN 934-5:T2	
Chloride ion content	<b>≤ 0,1% by mass</b>
Alkali content	<b>≤ 1,0% by mass</b>
Corrosion behaviour	<b>Contains components only from EN 934-1:2008, Annex A.1</b>

**Health hazard:** Ingunit T EKO does not contain toxic substances, contact with the skin and eyes should be avoided, and material should not be swallowed. In case of contact to skin or to eyes, rinsing is required with clean running water. If swallowed, medical assistance must be immediately requested. Additional formations are provided in Material Safety Data Sheet for the material.

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

**Cleaning and deposit:** Ingunit T EKO 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.