

# HIDROZIM T

*Admixture for concreting at low temperatures  
In compliance with: EN 934-2: T6*

## FIELD OF APPLICATION

Concreting at low ambient temperatures (Lower than +5°C). With the use of Hidrozim T, as well as implementing other recommendations for winter concreting, it is possible to properly apply concrete at low temperature conditions (up to -20°C).

## PROPERTIES

- Enables the proper hydration of cement at low temperatures;
- Enables early strength development of concrete;
- Reduces the time of concrete setting;
- Continues the construction season throughout the hall year;

## TECHNICAL FEATURES

| PROPERTY            | METHOD    | DECLARED VALUE                |
|---------------------|-----------|-------------------------------|
| Appearance          | Visual    | Brown liquid                  |
| Density (at 20°C)   | ISO 758   | (1.32±0.03) g/cm <sup>3</sup> |
| pH-value (at 20°C): | ISO 4316  | 6.0 ±1                        |
| Chlorides content:  | EN 480-10 | ≤0.1%                         |
| Alkali content:     | EN 480-12 | ≤2.0%                         |

## DOSAGE AND PERFORMANCE:

Optimal dosage of Hidrozim T is between 0,5% and 2,0% from cement quantity in concrete mixture. The dosage depends on the ambient temperature during concreting, the expected temperatures within 24 hours after concreting, the type of concrete element that is concreted and its exposure to atmospheric influences. At temperatures as low as -10°C recommended dosage of Hidrozim T is between 0.5 to 1.0% relative to the mass of cement in the concrete mixture, and for temperatures from -10°C to -20°C recommended dosage is (1,0-2,0%) in relation to the mass of the cement in the concrete mix. The temperature of the fresh concrete mixture during the concreting should be at least + 5°C (for thin sections + 10°C). At low temperatures this can be achieved by heating part or all of the components of the concrete mix (water, cement, aggregate). Following the addition of Hidrozim T concrete mixture should be mixed for min 4-5 minutes, and prepared concrete should be casted as soon as possible.

The surface of the casted concrete should be protected from surface freezing. The time for the release of the formwork should be delayed depending on the temperature until achieving the required strength of the concrete. In the case of concreting with Hydrosim T at temperatures below -10°C, it is necessary to take special measures for additional protection and care of concrete elements (heating, use of thermal insulation materials). For obtaining high quality concretes at low temperatures, as well as obtaining high early strengths, thus faster release of formwork, it is recommended to use Hidrozim T in combination with plasticizers and superplasticizers. For recommended dosages (0,5 to 2,0% from cement quantity), Hidrozim T do not have significant influence on the properties of concrete in fresh and hardened state. For these reasons, in cases when Hidrozim T is used there is no need for additional change of the concrete design.

**Effects of overdose:** In case of overdosing, Hidrozim T may cause loss of consistency of fresh concrete, as well as acceleration of the setting process of concrete.

## COMPATIBILITY

Hidrozim T is compatible with all admixtures from the product range of ADING. Hidrozim T is compatible with all types of Portland cement, including sulphate-resistant concrete types.

It is recommended to use Hidrozim T in combination with plasticizer or superplasticizer. Different admixtures are dosed separately i.e. they are not to be inter-mixed prior to application in the concrete mixture.


## PACKAGING

Plastic bottle: 1, 3 kg  
Plastic cans: 7 и 28 kg  
Drums: 280 kg  
Containers: 1300 kg

## STORAGE

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

## CE MARKING

|  |   |
|--|---|
| <br>2032  |   |
| <b>ADING AD Skopje</b><br><b>Novoselski pat (street 1409)No.11, 1060</b><br><b>Skopje, Macedonia</b><br><b>09</b><br><b>2032-CPR-08.40B</b><br><b>EN 934-2:2009+A1:2012</b><br><b>HIDROZIM T</b><br><b>Concrete admixture, Set accelerator</b><br><br><b>EN 934-2:T6</b> |   |
| <b>Maximum chloride ion content:</b>   | <b>0.1%</b>   |
| <b>Maximum alkali content</b>  | <b>2.0%</b>   |
| <b>Corrosion behavior:</b>   | <b>Contains the following components from EN 934-1:2008, Annex A.2 : Nitrates</b> |

**Health hazard:** Hidrozim T does not contain toxic substances, however attention must be paid to avoid contact with the skin, eyes or not to 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:** Hidrozim T is a non-flammable liquid. Additional formations are provided in Material Safety Data Sheet for the material.

**Cleaning and deposit:** Hidrozim 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.