

# HIDROZIM-T

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

## Field of application:

Concreting at low temperature conditions (below 5°C). By using HIDROZIM-T, as well as following the recommendations for winter concreting, it is possible to properly apply concrete at temperatures up to -20°C.

## Properties:

- Enables proper development of cement hydration process at low temperature conditions;
- Enables early strength development of concrete;
- Decreases the concrete setting time;
- Prolongs the construction season during the entire year;

## Technical features:

|                    |                             |
|--------------------|-----------------------------|
| Type:              | Nitrate compound            |
| Appearance:        | light-brown liquid          |
| Dry substance:     | 45,0±2,25%                  |
| Density:           | 1,32±0,03 g/cm <sup>3</sup> |
| Chlorides content: | <0,1%                       |
| Alkali content:    | <2%                         |
| pH-value:          | 7,5±1,0                     |

## Dosing:

The recommended dosage of Hidrozim-T ranges between 0.5 and 2.0% of the amount of cement in the concrete mixture. The dosage depends on the ambient temperature during concrete placement, the temperature expected in the period of 24 hours after the placement, the type of section in which the concrete is placed and its exposure to weather conditions. At temperature down to -10°C, the recommended HIDROZIM-T dosage range is between 0.5% and 1.0%, whereas at temperature below -10°C (down to -20°C), the recommended dosage range is 1.0–2.0%

The temperature of fresh concrete mixture should be at least +5°C (for small sections +10°C). At low temperatures, that could be attained by heating some of the constituents of the concrete mixture.

Following the addition of Hidrozim-T concrete mixture should be mixed for at least 4-5 minutes. Prepared concrete should be placed as soon as possible. The edges of the concrete should be protected from surface freezing.

### Health hazard:

Hidrozim-T does not contain toxic substances; nevertheless, it is necessary to take care for Hidrozim not to come to contact with skin, eyes or not to be swallowed. In case of splashing on the skin or in the eyes, it is necessary to rinse with pure flowing water. If it has been swallowed, it is necessary to ask immediately for medical assistance.

### Fire:

Hidrozim-T is non-flammable liquid.

### Cleaning and discarding:

Cleaning of Hidrozim-T residues is by using water. The old and used packing should be discarded in accordance with the local relevant regulations for that kind of waste.

The time for releasing the formwork should be delayed depending on the temperatures. 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 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, for which quality is proven by previous laboratory and I industrial testing in normal temperature conditions.

## Effect due to overdosing:

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 number of concrete admixtures – plasticizers, superplasticizers, air-entraining admixtures, concrete waterproofing admixtures. It is recommended to use Hidrozim-T in combination with plasticizer or superplasticizer. Different admixtures are batched separately i.e. they are not intermixed with each other prior to insertion into the concrete mixture.

Hidrozim-T is usable with all types of Portland cements, including sulphate resistant cements.

## Packing:

Plastic cans: 1,3; 7; 28 kg  
Drums: 280 kg  
Plastic containers: 1300 kg

## Storage:

In original packing, at a temperature from -20°C to 35°C and protected against direct influence of sunbeams. Shelf life: 12 months.