

# INGUNIT-P

*Powdery admixture for acceleration of setting, thickening, improvement of adhesiveness and watertightness of shotcretes. In compliance with: ASTM C403;*

## Field of application:

Execution of shotcretes using dry treatment;  
Improvement of workability and quality of shotcretes and sprayed mortars in tunnel construction, construction of canals and manholes, mining shafts, retaining walls, pools, remedial works, concrete members with irregular form, regulation of rivers, side cuts etc.;  
Suitable for executing repairs of concrete members with rounded and irregular forms such as domes, hyperbolic vaults and the like;  
Also used as admixture accelerator for contact bond grouting in tunnels, inspection galleries (dams) and the like;

## Properties:

- Intensive acceleration of setting time of concretes and mortars;
- Achievement of early strengths;
- Improves adhesiveness of concrete and mortar mixtures;
- Enables mechanical placement on vertical, inclined and ceiling surfaces;
- Reduces the discard - waste of material during spraying;
- Does not contain chlorides;

## Technical features:

Type:	Alkali-based
Appearance:	white powdery mass
Specific gravity:	0,9-1,1 g/cm <sup>3</sup>
Chlorides content:	none

## Dosing:

For sprayed concretes dosing is 2 to 6% by weight, in relation to cement mass. Dosing percentage depends on the acceleration time which has to be achieved, consistency of concrete, type and quantity of cement, temperature conditions, substrate category upon which it is applied etc. If used for sprayed concrete in concreting primary tunnel lining, then dosing for concreting the calotte part should amount to 4-6%, while for the tunnel bottom part dosing could be less, 2-4%.

Ingunit-P is added to the dry concrete mixture immediately prior to the placement.

If used as accelerator for classical concretes and mortars, Ingunit-P is added (recommended up to 2%) immediately prior to placement, directly into the mixture, mixing and placement are fast, since there is a danger of quick setting and damaging the equipment.

## Effect due to overdosing:

In incorrect estimate of dosing Ingunit-P, classical concreting may experience premature setting of concrete in the mixer or the pump.

## Compatibility:

Ingunit-P is compatible with a number of admixtures of ADING's portfolio of products. If the concrete mixture uses two or more admixtures, it is necessary to perform preliminary tests. Different admixtures are batched separately i.e. are not intermixed with each other prior to insertion into the concrete mixture.

Ingunit-P is usable with all types of Portland cements, and sulphate resistant cements.

## Packing:

In valve bags: 14 kg.

## Storage:

In original packing, under dry conditions and protected against direct influence of sunbeams. Shelf life: 12 months.

**Health hazard:** When working with Ingunit-P, it is obligatory to use protective rubber gloves, respiratory mask as well as protective goggles. The room where sprayed concrete with addition of Ingunit-P is being placed, should be well ventilated.  
In case of contact with skin, it is necessary to use abundant rinsing with pure flowing water and smearing bor-vaseline-based cream on the skin. In case of splashing in the eyes, immediately apply abundant rinsing with pure flowing water, use drops of boric water and ask for urgent medical assistance. If it has been swallowed, immediately drink the largest possible quantity of water or milk and ask for urgent medical assistance.

**Fire:** Ingunit-P is non-flammable powder.

**Cleaning and discarding:** Cleaning of Ingunit-P 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.