

POROCINITEL

Air entraining admixture

In compliance with: EN 934-2: Table5

FILED OF APLICATION

Preparation of concrete with high class of resistance to frost and de-icing salts. Preparation of concrete in environment with XF2, XF3, XF4 Class of exposure, such as: airfield runways, parking lots, concrete pavements, retaining walls, "New Jersey" highway fences, sidewalks on bridges etc;

It is used as additional agent in preparation of lightweight concretes;

Concretes with specific means of application (sprayed concrete and extruded concrete);

Preparation of cement mortars for the construction of facades;

PROPERTIES

- Enables entraining of micro-pores in concrete and mortar mixtures;
- Enables uniform disposition of isolated (unconnected) micro-pores in concrete and mortar mixtures;
- Distance between individual pores is between 150-200 μ (microns);
- Increases the resistance of concrete against frost and de-icing salts;
- Improves the workability of concretes and mortars;
- Prevents segregation and bleeding of concretes;

TECHNICAL FEATURES

| PROPERTY | METHOD | DECLARED VALUE |
|---------------------|-----------|-------------------------------------|
| Appearance | Visual | light brown transparent liquid |
| Density (at 20°C) | ISO 758 | (1,02 \pm 0.02) g/cm ³ |
| pH-value (at 20°C): | ISO 4316 | 12 \pm 1 |
| Chlorides content: | EN 480-10 | \leq 0.1% |
| Alkali content: | EN 480-12 | \leq 2.0% |

DOSAGE AND PERFORMANCE:

Recomended dosage of Porocinitel is between 0,01% to 0,15% of the cement mass in the concrete mix.

The quantity of entrained air (pores) depends on a number of factors: dosing percentage, type of concrete, type and quantity of cement, maximum aggregate grain in the concrete mixture, consistency of fresh concrete or mortar, etc. Because of these reasons, it is necessary to carry out preliminary tests of concrete mixtures in order to determine exact dosage of Porocinitel, that is needed for the required quantity of entrained air.

For approximation, the ratio of entrained air and the quantity of Porocinitel is provided in the enclosed diagram, (Diagram 1).

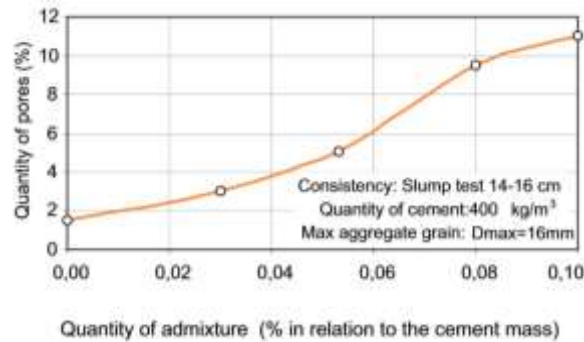


Diagram 1

Porocinitel is added manually or automatically simultaneously with the water, in the fresh concrete mixture, during the production of concrete.

Effects of overdose: Overdosing Porocinitel can cause high quantity of air to be entrained inside concrete, thus significant decrease of strength characteristics of concrete. For this reason, correct quantity of entrained air must be determined by preliminary testing, and it must be continually controlled during the production of concrete. In case when Porocinitel is dosed in the ready mix concrete on construction site (in the concrete mixer-trucks), it must be previously diluted in the few liters of water and then added in concrete and mixed until complete homogenisation. In this case it is necessary to control quantity of entrained air in concrete.

COMPATIBILITY

Porocinitel is compatible with all admixtures from ADING production program. If two or more additives are used in the concrete mixture, it is necessary to make preliminary tests. Various additives are dosed separately i.e. they are not to be inter-mixed prior to application in the concrete mixture. Porocinitel is compatible with all types of Portland cement, including sulfate-resistant cements.

PACKAGING

Plastic cans: 5 and 20 kg
Plastic barrels: 200 kg
Containers: 1000 kg

STORAGE

In original package at temperatures from 5°C to 35°C, protected from direct sunlight. Shelf life: 12 months.

CE MARKING

| | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| CE 2032 | |
| ADING AD Skopje, Novoselski pat (ul 1409) br.11 1060 Skopje, North Macedonia 08 GAFB001/6 EN 934-2:2009+A1:2012 POROCINTEL Concrete admixture, air entraining EN 934-2:T5 | |
| Chloride ion content | ≤ 0,1% by mass |
| Alkali content | ≤ 2,0% by mass |
| Corrosion behaviour | Contains components only from EN 934-1:2008, Annex A.1 |

Health hazard: Porocinitel does not contain toxic substances, however 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: Porocinitel is a non-flammable liquid. Additional formations are provided in Material Safety Data Sheet for the material.

Cleaning and deposit: Porocinitel 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.