

DDC

CEM I 32,5 N-LH

Portland cement MSZ EN-197-1:2011

Beremend



DDC

In harmony with the environment.

DUNA-DRÁVA CEMENT
HEIDELBERGCEMENT Group

Portland cement MSZ EN-197-1:2011

The CEM I 32,5 N-LH type low heat generator portland cement as construction binder is suitable for the following applications:

- monolithic reinforced concrete structures for structural and underground engineering
- "heavy" concreting, large cross section concrete, reinforced concrete structures
- load bearing concrete and reinforced concrete structures of private houses
- estrich concretes, plasters, mortars

Composition, cement components:

Portland cement clinker, additive content according to standard composition between 0-5%, the required amount of setting control material (gypsum, REA gypsum), chromate reducing agent.

Key features, areas of application:

The CEM I 32,5 N-LH low heat generator portland cement is a special cement.

Due to its standard early and ultimate strength, low water demand and low heat evolution, it is a widely used cement. As a result of its low heat evolution and low tendency to shrink, its use reduces the risk of cracks appearing in the concrete, therefore its use is strongly recommended in summer heat and/or when large volumes of concrete are applied. Its colour is medium grey.

Its use is beneficial in the production of concrete and reinforced concrete with strength classes C 8/10 to C 40/50, and thanks to its low heat evolution, high-mass concrete structures.

Suitable for the production of adequate quality frost-resistant concrete (XF1, XF4), abrasion resistant concrete (XK1 – XK4), watertight concrete (XV1 – XV3), and radiation shielding concrete.

Suggested use for the production of concrete mix and the construction of concrete structures:

The use of cement requires basic construction knowledge. If you do not have sufficient professional knowledge, consult a concrete technologist.

Basic criteria for the production of durable concrete:

- low water content
- as high density as possible
- meticulous aftercare

When creating the concrete mix, the amount of added mixing water should be as little as possible. To improve the workability of the concrete, it is recommended to add plasticizer additives. In order to achieve higher strength and a more favourable concrete structure, care must be taken to ensure that the fresh concrete is properly compacted. Aftercare of the concrete must be started immediately after placing, by spraying and flooding it with water, covering it with plastic, keeping it in the formwork, and applying a vapour barrier coating. It is advised to keep the concrete moist for 7-21 days without interruption, depending on the composition of the concrete mix, the type of concrete structure and the ambient temperature. In the event of low ambient temperatures, the frost protection and thermal insulation of the concrete structure must be ensured until the critical strength required for the concrete's resistance to freezing is reached. Recommended placing temperature: above +5°C daily average temperature.

Technical characteristics: /DDC, Labor-MEO/

	Standard requirement	Average value Beremend Plant
Compressive strength (MPa)		
■ at 7 days	≥16	32,8
■ at 28 days	≥32,5≤52,5	45,3
Hydration time (J/g)	<270	231
Setting time (min)		
■ beginning	≥75	220
■ end	-	320
Specific surface area (cm ² /g)	-	2419
Water demand (%)	-	27,5