# ::nexe

## **TECHNICAL INSTRUCTION**

# Product: CEM II/B-M (V-S) 42,5N, Mixed Portland cement Strength class: 42,5N according to norm EN 197-1:2011

Product description and intended purpose:

CEM II/B-M (V-S) 42.5N cement contains a minimum of 65% Portland cement clinker; up to 35% of mixed additive, a combination of silicon fly ash (V) and blast furnace slag (S); up to 5% by-product (filler); binding regulator (natural gypsum).

The combination of the amount and type of additives gives this cement the properties of moderate development of heat of hydration, providing the required initial and final strengths, setting time that allows optimal installation, good resistance to moderately aggressive environment.

CEM II/B-M (V-S) 42.5N cement is intended for the preparation of concrete and mortar for a wide range of applications, for all construction work performed in the prescribed construction conditions for reinforced and non-reinforced concrete structures.

Recommended: for the construction of road structures (bridges, tunnels, viaducts); for the production of transport and pumped concrete; for concrete elements and structures of large cross-section; for the production of precast concrete elements; for residential, business, industrial and family facilities where it fully meets the requirements for all concrete works, production of substrates and glazes, foundations and load-bearing concrete structures.

#### Delivery, transport and storage

It is obligatory to transport the cement in the covered cargo area of the vehicle, protected from atmospheric agents (moisture). Store the bag with the product in a dry, weatherproof place, above ground on a pallet or other dry surface; stacking more than ten sacks in height is not recommended.

## Best before

12 months from the date of packing printed on the bag, if conditions of transport and storage are met **Certificate of constancy of performance** Issued by Institut IGH d.d. Zagreb.

**Declaration of performance**: 2477– CPR-2860-NC08-001 on 1 June 2022 Declaration on Properties available at: <u>www.nexe.hr</u>/en/ PRODUCTS AND SERVICES/ Cement/ Declaration on Properties CEM II/B-M(V-S)42,5N (no.: 2477-CPR-2860-NC08-001)

## Instructions for use

CEMENT		
For the manual preparation of concrete, the recommended recipe for concrete elements is: 1: 3 where 1 indicates the volume of cement and 3 of aggregates (0-32 mm).	The amount of water is added as needed, depending on the moisture of the aggregate and the target water-cement factor. Use clean, unpolluted water.	Use aggregate without organic clay or soil, good granulometry.

**Note:** The ratios given above are for guidance only and do not replace the initial type testing of concrete, concrete structure project and the prescribed quality control of concrete. When dosing it is necessary to hold on to concrete structure project.

# Characteristics:

Mechanical and Physical Properties:	CEM II/B-M(V-S) 42,5N	Standard requirement
Binding start (min)	220	≥ 60
Volume stability according to Le Chatelier (mm)	1.0	≤ 10
Compressive strength after 2 days (MPa)	19.0	≥ 10
Compressive strength after 28 days (MPa)	50.0	≥42.5 ≤ 62.5
Chemical Properties:		
SO <sub>3</sub> (%)	3.00	≤ 3.5
Cl <sup>-</sup> (%)	0.04	≤ 0.10

Information regarding cement content and property values are characteristic and approximate.



The packaging must be collected separately. Disposal into mixed municipal waste is prohibited.



DANGER

H318 Causes serious eye damage		
H315 Causes skin irritation		
H317 May cause an allergic skin reaction		
H335 May cause respiratory irritation		
P102 Keep out of reach of children		
P280 Wear protective gloves/protective clothing/eye protection/face protection		
P305+P351+P338+P310:		
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately		
call a POISON CENTER or doctor/physician		
P302+P352+P333+P313:		
IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention		
P261+P304+P340+P312:		
Avoid breathing dust/fume/gas/mist/vapours/spray. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for		
breathing. Call a POISON CENTER or doctor/physician if you feel unwell.		
P501 Dispose of contents/container according to national regulations.		



The content of water-soluble chromium (VI) <2 ppm A lowering agent of water-soluble chromium (VI) content was added to the cement.

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