

TECHNICAL INSTRUCTIONS FOR CEMENT CEM II/B-M(V-S) 42,5N
Product: CEM II/B-M(V-S) 42,5N, Mixed Portland cement
Strength class: 42,5N in accordance with the 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.

Features:

Characteristic values of mechanical, physical and chemical properties for CEM II/B-M (V-S) 42.5N cement and requirements according to the standard EN 197-1:2011

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 ₃ (%)	3.00	≤ 3.5
Cl ⁻ (%)	0.04	≤ 0.10

Quality control:

The production process is part of an integrated management system certified according to international standards ISO 9001:2015, ISO 14001:2015, BS OHSAS 18001:2007 and ISO 50001:2018. In addition to regular internal quality control of products at all stages of production, independent control is carried out by the Croatian Institute of Civil Engineering, Zagreb. The product is subject to proof of compliance according to EN 197-1:2011

Certificate of permanence of product properties: Issued by Institut IGH d.d. Zagreb.

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

Delivery, transport and storage:

Cement is delivered in bulk in cisterns.

Bulk cement is delivered in dry and clean cisterns without organic and anorganic impurities. Bulk cement should be stored in concrete or metal silos isolated from atmospheric agents. It is recommended to fill the same silo with one type of cement, i.e. not mix different types of cement.

Best before: 3 months from date of despatch on Despatch note, if conditions of transport and storage are met

COUNTRY OF ORIGIN: REPUBLIC OF CROATIA

Technical information from this instruction is given according to latest information we dispose of, as general instructions only and are subject to change without previous notice. Information regarding cement content and property values are characteristic and approximate.



DANGER

UFI: XS00-V0W2-M00D-0JXW

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.