

TECHNICAL INSTRUCTION FOR CEMENT CEM II/B-S 42,5R**Product: CEM II/B-S 42,5R. Portland cement with added slag****Strength rank: 42,5R according to norm EN 197-1:2011.****Product description and application:**

CEM II/B-S 42,5R is Portland cement with added slag. It is used for production of concrete and mortar for all construction works carried out in prescribed construction conditions for reinforced and unreinforced concrete structures (bridges, tunnels, viaducts, residential construction, finished concrete elements, transport pumped concrete). Cement contains minimum 65 % of Portland clinker, up to 35% of slag (S), 5% of secondary additive (filler); binding regulator (natural gypsum). The optimal ratio of clinker and slag ensures the required strength, and during the production of concrete it provides good workability and excellent embedding properties, as well as moderate resistance to aggressive media.

INSTRUCTIONS FOR USE:

When dosing it is necessary to hold on to project of concrete structure. When preparing concrete mixture one must use results of first concrete testing, concrete project and carry out prescribed concrete quality control.

Characteristics:

Characteristic values of mechanical, physical and chemical properties for cement CEM II/B-S 42,5R and requirements according to norm EN 197-1:2011

Mechanical and physical properties:	CEM II/B-S 42,5R	Norm requirement
Start of binding (min)	145	≥ 60
Volume stability acc. to Le Chatelier (mm)	0,7	≤ 10
Pressure strength after 2 days (MPa)	25	≥ 20
Pressure strength after 28 days (MPa)	51	≥ 42,5 ≤ 62,5
Chemical properties:		
SO ₃ (%)	2,96	≤ 4,0
Cl (%)	0,04	≤ 0,10

Quality control:

Production process is part of integrated management system certified according to international norms ISO 9001:2015 and ISO 14001:2015, ISO 45001:2018 and ISO 50001:2018. In addition to regular internal quality control in all phases of production process Institute for Civil Engineering in Zagreb Croatia carries out independent control. Product is subject to compliance proof according to EN 197-1:2011.

Certificate of constancy of performance: Issued by Institut IGH d.d. Zagreb

Declaration of performance: 2477-CPR-2892-NC09-001 from 06/01/2023. Declaration of performance available at: www.nexe.hr/en / PRODUCTS&SERVICES/ Cement/ Declaration of performance CEM II/B-S 42,5R (number: 2477-CPR-2892-NC09-001).

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.

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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.