

CEM II/B-S 42,5N

Portland-slag cement

**Ideal cement
for ready-mixed
concrete production**



All-purpose cement for all types of concrete work requiring high final strength and a higher structural load capacity. Ideal cement for the production of ready-mixed concrete. The low development of heat of hydration also predetermines it to concreting in warm weather.

Characteristics

CEM II / B-S 42,5N is a cement produced by fine grinding of Portland clinker, granulated blast-furnace slag (21 – 35% according to EN 197-1) and gypsum. It attains 2-day strengths ranging from 20 to 23 MPa and standard 28-day strengths of 54 to 58 MPa.

Use

- plain concrete and reinforced concrete even of higher strength classes
- monolithic and massive concrete structures
- concrete structures within water structures
- hard surfaces made of concrete
- concretes and concrete elements exposed to mechanical load
- subconcrete and cement screeds

Advantages

- very good workability and soundness
- very good pumpability of concretes
- low development of heat of hydration
- high final strengths
- moderate resistance to chemical aggression (up to the XA1 environment)

Quality

The quality of cements is supervised by the TSÚS (Building Testing and Research Institute), Bratislava. CEMMAC is a holder of an ISO 9001: 2008 quality management certificate and an ISO 14001: 2004 environmental management certificate.

Essential properties	Harmonized Standard EN 197-1	CEMMAC CEM II/B-S 42,5N
2-day compressive strength (MPa)	≥ 10	20 – 23
28-day compressive strength (MPa)	≥ 42,5 ≤ 62,5	54 – 58
Initial setting time (min)	≥ 60	230 ± 30
Volume stability (expansion) – Le-Chatelier (mm)	≤ 10	0,0 – 2,0
SO ₃ sulphate content (%)	≤ 3,5	2,5 – 2,9
Chloride content (%)	≤ 0,10	0,05 ± 0,09

The content of tricalcium aluminate in this cement is less than 7%.



Increase in strengths

