CEMMAC
CEMENT

SUPER 42,5 R

Portland-slag cement

Cement for high-strength concrete

Quick-setting cement suitable for the production of high-strength concrete and for structures or concrete elements requiring a rapid increase in early strengths. The higher development of heat of hydration also predetermines it to concreting at lower ambient temperatures.

Characteristics

CEM II/A-S 42,5R is a cement produced by fine grinding of Portland clinker, granulated blast-furnace slag (6 – 20% according to EN 197-1) and gypsum. It attains 2-day strengths ranging from 25 to 29 MPa and standard 28-day strengths of 57 to 61 MPa.

Use

- concretes for difficult concrete structures
- concrete elements and structures requiring a rapid increase in early strengths
- prefabricated concrete elements and construction components (paving, permanent shuttering, kerbs, ...)
- industrial floors
- external hard surfaces made of concrete
- plain concrete and reinforced concrete even of higher strength classes
- cement screeds

Advantages

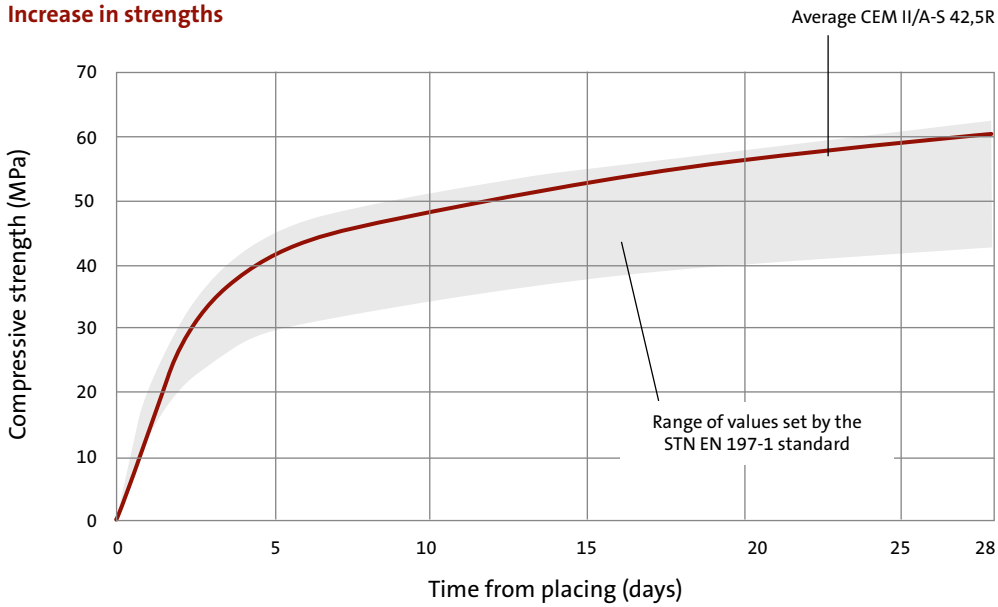
- a rapid increase in early strength and high final strengths
- very good workability and soundness
- higher development of heat of hydration
- moderate resistance to chemical aggression (up to the XA1 environment)

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/A-S 42,5R
2-day compressive strength (MPa)	≥ 20	25 – 29
28-day compressive strength (MPa)	≥ 42,5 ≤ 62,5	57 – 61
Initial setting time (min)	≥ 60	200 ± 30
Volume stability (expansion) – Le-Chatelier (mm)	≤ 10	0,0 – 2,0
SO3 sulphate content (%)	≤ 4,0	2,6 – 3,0
Chloride content (%)	≤ 0,10	0,02 – 0,09

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

CO_2 reduced emissions

Increase in strengths