

Portland-limestone cement CEM II/A-LL 42,5 R

Märker Portland cement CEM II/A-LL 42,5 R is produced by mixing ideally matched cement and up to 20% selected and tested Jura limestone dust. The finely ground limestone produces the special properties of this cement. **Märker Portland cement CEM II/A-LL 42,5 R** is much finer than normal CEM I 42,5 R, but does not require more water.

With carefully controlled concrete production, it is therefore possible to have a small safety margin and the required concrete strengths can be achieved economically. Due to its high specific surface area, it has an exceptional water retention capability and therefore does not tend to "bleed".

Properties: High early strength - Standard hardening
high level of hydration heat development

Applications: Production of

- concrete, reinforced and prestressed concrete according to EN 206-1 / DIN 1045-2
- prestressed concrete according to German norm DIN 1045-1
- concrete constructions according to ZTV-Ing ⁽¹⁾
- industrial floor
- precast concrete elements

Recommended compressive strength: \geq C 30/37

The concrete composition should be determined through initial tests in due time before the start of concreting work so as to achieve the necessary fresh and hardened concrete properties reliably and economically.

Miscible with all cements according to DIN EN 197, but not with gypsum or gypsum products

Processing: In order to make the best use of the cement's performance and guarantee the durability of the concrete structures built with this, adequate curing in accordance with DIN 1045-3 must be ensured to protect these from drying out too quickly as well as frost.

Avoid any contact with your eyes and skin when processing the cement. Wear appropriate protective clothing .

Standard: Cement as specified in EN 197-1

Quality control: In-house production control and external monitoring by FIZ GmbH, Düsseldorf.

Supply: bulk in silo trucks, available in Harburg

Storage: Cement should be stored in a dry place and protected against moisture. Bulk goods are low in chromate for 2 months after delivery, pursuant to Regulation (EC) No. 1907/2006

Development of compressive strength

Time [days]	Compressive strength [MPa]
1	ca. 14
2	ca. 27
7	ca. 48
28	ca. 58
56	ca. 63
90	ca. 65

Evolution of hydration heat

Time	Energy J/g
1 h	10
4 h	20
8 h	40
1 d	170
2 d	240
4 d	290
7 d	320

⁽¹⁾ Additional technical terms of contract and guidelines for civil engineering works (German designation: ZTV-ING)

Please refer to our current safety data sheets according to EC Regulation No. 1907/2006 for tips on handling our products. Any information, product descriptions or technical data provided in this publication is without warranty and any liability is excluded. The values in our data sheets are average values based on numerous measurements.

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