

## Blastfurnace cement CEM III/A 42,5 N

**Märker Portland Cement CEM III/A 42,5 N** is produced by mixing a high grade portland cement with a selected blastfurnace slag meal, optimised and matched to each other. Granulated blastfurnace slag, which is obtained during iron smelting, has latent hydraulic properties. When used with Portland cement clinker, the granulated blastfurnace slag gives **Märker blastfurnace cement CEM III/A 42,5 N** its special properties.

Compared with Portland cements, **Märker blastfurnace cement CEM III/A 42,5 N** is characterised by an increased resistance against sulfate-containing water.

**Properties:** Standard strength development - Good hardening  
Standard 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 for massive structural components

Recommended compressive strength: :  $\geq$  C 30/37

In order to achieve unerringly and economically the required fresh and hardened concrete properties the concrete composition is to be determined by an initial type-testing which should take place in good time before the start of concreting.

Can be mixed with all cements complying with EN 197, but **not** with gypsum or gypsum products

**Processing:** In order to exploit the efficiency of the cement and to ensure the durability of the concrete components produced with it, sufficient after-treatment in accordance with DIN 1045-3 to protect against too rapid dehydration and frost must be ensured.

When working with cement, avoid contact with skin and eyes. Wearing suitable protective clothing is mandatory.

**Technical standard:** Cement as specified in EN 197-1

**Quality control:** in-house monitoring and external quality control in accordance with EN 197 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. 6
2	ca. 15
7	ca. 29
28	ca. 55
56	ca. 65
90	ca. 70

### Evolution of hydration heat

Time	Energy J/g
1 h	5
4 h	15
8 h	40
1 d	150
2 d	210
4 d	250
7 d	280

<sup>(1)</sup> 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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