

Portland cement CEM I 42,5 N (st)

Märker Portland cement CEM I 42,5 N (st) is produced by intergrinding Portland cement clinker with sulfate agents to regulate the setting.

Märker Portland cement CEM I 42,5 N (st) meets the requirements for the properties of a cement according to TL Beton –StB⁽¹⁾ and can therefore be denominated as road paving cement.

Properties: Standard early strength - Standard hardening
Standard level of hydration heat development
Cement with a low active alkali content

Applications: Production of

- cement for the production of concrete road pavements according to ZTV Beton – StB⁽²⁾
- concrete, reinforced and prestressed concrete according to EN 206-1 / German norm DIN 1045-2

Recommended compressive strength: C 8/10 to 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 according to 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, pursuant to Regulation (EC) No. 1907/2006

Development of compressive strength

Time [days]	Compressive strength [MPa]
1	ca. 10
2	ca. 24
7	ca. 40
28	ca. 60
56	ca. 65
90	ca. 70

Evolution of hydration heat

Time	Energy J/g
1 h	10
4 h	15
8 h	35
1 d	140
2 d	215
4 d	280
7 d	320

⁽¹⁾ TL Beton — StB: Technical Terms of Delivery for construction materials and material mixtures for base courses with hydraulic binders and concrete surfacing.

⁽²⁾ ZTV Beton – StB Additional technical terms of contract and guidelines for the construction of base courses with hydraulic binders and concrete surfacing (German designation: ZTV-Beton - StB)

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.

Stand 01/2020

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