CEM II/B-M (S-D) 52,5 N - *Duracrete® basic*

### Composition:
SCHWENK Portland Composite Cement CEM II/B-M (S-D) 52,5 N - *Duracrete® basic* is a hydraulic binder according EN 197-1.

The main ingredients of SCHWENK CEM II/B-M (S-D) 52,5 N - *Duracrete® basic* are Portland Cement clinker, blastfurnace slag and silica fume of chosen quality. As solidification modulatormcalcium sulphate is added.

By stringent production monitoring during the complete production procedure a uniform quality on a high level is maintained.

### Properties:
SCHWENK Portland Composite Cement CEM II/B-M (S-D) 52,5 N - *Duracrete® basic* combines by the balanced combination of Portland Cement clinker, blastfurnace slag and chosen silica fume qualities the special properties of silica fume cement with the advantages of foundry cement. The concretes produced with this cement form an extra dense microstructure with high final strength and very good durableness properties.

SCHWENK CEM II/B-M (S-D) 52,5 N - *Duracrete® basic* is low on chromates. By addition of a chromate reducer the contents of water soluble chromium VI < 2 ppm.

### Application:
SCHWENK Portland Composite Cement CEM II/B-M (S-D) 52,5 N - *Duracrete® basic* can be used for the production of all concretes according DIN EN 206-1/DIN 1045-2.

Mainly the SCHWENK Portland Composite Cement CEM II/B-M (S-D) 52,5 N - *Duracrete® basic* is used for concretes, for which high early and final strengths up to a strength class of C100/115 must be reached and/or high requirements for tightness and constancies of the concretes are set.

A preferred field of application for SCHWENK Portland Composite Cement CEM II/B-M (S-D) 52,5 N - *Duracrete® basic* constitute the high performance concretes for various areas (e.g. high building and bridge building, urban hydraulic engineering, mining).

### Concrete additives:
The addition of concrete additives is permitted according DIN EN 206-1/DIN 1045-2, if they conform to the relevant regulations or a general technical approval is available. Concrete additives with approval may only be used under the conditions as stated in the approval document. The permissible amount of fly ash according DIN EN 450 is for this cement limited to 15 % of the cement weight.

The addition of silica fume as additive is excluded.

For the production of reinforced concrete according DIN 1045-1 with direct bond as concrete additives only fly ash and silica fume or inert powdered minerals according DIN EN 12620 and pigments with proved inoffensiveness for tensing steel may be used.

A initial test according DIN EN 206-1/DIN 1045-2 is necessary at addition of concrete admixtures.

### Concrete admixtures:
The addition of concrete admixtures is permissible according DIN EN206-1/DIN 1045-2, when these conform to the appropriate standards resp. has a general building authority approval and is used according to the conditions as stated in the approval.

A initial test according DIN EN 206-1/DIN 1045-2 is necessary at addition of concrete admixtures.
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Quality control: SCHWENK Portland Composite Cement CEM II/B-M (S-D) 52,5 N - Duracrete® basic is subject to a self monitoring by our in-house laboratories and is externally monitored by the Verein Deutscher Zementwerke e.V. Düsseldorf.

Suppliers: Bernburg, Karlstadt

Delivery: As bulk in silo trucks

Storing: SCHWENK Portland Composite Cement CEM II/B-M (S-D) 52,5 N - Duracrete® basic must be dry stored and protected against humidity.

Cited standards:
- DIN EN 197-1 Cement
  - Part1: Composition, specifications and conformity criteria for common cements
- DIN EN 206-1 Concrete
  - Part1: Specification, performance, production and conformity
- DIN 1045-1, 2 Concrete, reinforced and prestressed concrete structures
  - Part1: Design and construction
  - Part2: Concrete - Specification, properties, production and conformity - Application rules for DIN EN 206-1
- DIN EN 12620 Aggregates for concrete

Technical support: Our application support team informs you regarding all application-technological questions.

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The information of this leaflet is based on the actual knowledge and experiences. They provide an indicative value for the fundamental suitability and have to be adapted by examinations and tests for the practical application by the processor. For this the relevant valid laws, standards and guidelines as well as the generally accepted rules of the building technology are to be observed. With the publishing of this Technical Leaflet all earlier published Technical Leaflets lose their validity. Alterations in the scope of product and application-technological further developments are reserved. For all commercial relations our conditions of sales and delivery in their actual version apply.