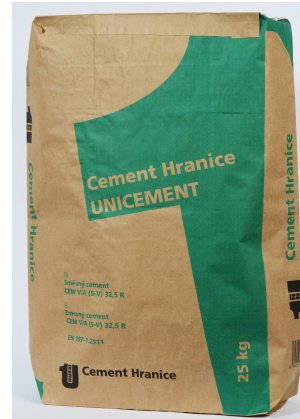




Technical list Portland cement with limestone CEM II/B-LL 32,5 R

February 2024

BUZZI Cement Hranice



CEM II/B-LL 32,5 R Portland cement with limestone CEM II/B-LL 32,5 R

Description:

CEM II/B-LL 32,5 R Portland cement with limestone is manufactured in accordance ČSN EN 197-1 ed. 2. It is a hydraulic binder in powder form manufactured by grinding together Portland clinker, lime-stone, calcium sulphate, additional constituents and additives. These constituents are specified in the technical standards EN 197-1, article 5. Packed Portland cement with limestone CEM II/B-LL 32.5 R is supplied to the market under the brand name UNICEMENT.

Characteristic features:

- medium increase strength
- medium initial strength
- medium standardized strength
- medium development of hydration head in the of setting and hardening

Used:

Used for small concrete structures and for preparation of concrete on the building site. CEM II/B-LL

Composition of the Portland cement with limestone

Typ of cement	Main constituent		Additional const.
	Portland clinker	Limestone LL	
CEM II/B-LL	65-79%	21-35%	0-5%

To said ration of the componenet is not included calciumsulfate, which is added as a setting regulator, and additives facilitating cement production.

32,5 R is suitable for concrete of standard strength classes (for home use). Not suitable for concrete structures which are subjected for very high mechanical loads and aggressive environment.

Method of delivery:

- packaged in paper bags of 25 kg on 1,4 ton EUR palletes covered with a shrinking foil

Additional information:

- this packed cement is subject to the notice of the Department of Environmental Hazards and Environmental Damages of the Ministry of Environment regarding the definition of terms included in point 47, paragraph 3 of Annex XVII to Regulation (EC) No. 1907/2006.
- the content of water-soluble hexavalent chromium (Cr VI+) shall not exceed 0,0002 % for a shelf life of 4 months provided that protection against exposure to water and high relative humidity (max. 75 %) is provided during storage – see national annexes NA.1
- ČSN EN 197-1 ed. 2. shelf life is 4 months from the date of dispatch, which is stated on the delivery, or. consignment note. At the same time, the condition must be observed that protection against the effects of water and high relative humidity (max. 75%) is ensured during storage - see national annexes NA.1 ČSN EN 197-1 ed.2.

Quality, environment, safety and energy management

- Quality Management Certificate according to ČSN EN ISO 9001
- Environmental Management Certificate according to ČSN EN ISO 14001
- Occupational Safety management Certificate according to ČSN ISO 45001
- Energy Management Certificate according to ČSN EN ISO 50001

Technical parameters:

CEM II/B-LL 32,5 R			
Parameter	Unit	EN 197-1 requirement	Average achieved values
Initial strength (2 days) (compressive strength)	MPa	≥ 10	19
Standardized strength (28 days) (compressive strength)	MPa	32,5 - 52,5	41
Setting initiation	minutes	≥ 75	159
Volume stability (expansion)	mm	≤ 10	1,1
Sulphate content (as SO ₃)	%	≤ 3,5	3,0
Chloride content	%	≤ 0,1	0,08

The given values are for information only and may differ from the values of the specific samples.

Usability of cements for the degree of environmental influence according to ČSN EN 206 +A2 and ČSN P 73 2404

Environmental influence degree																		
Cement	corrosion risk free	corrosion caused by carbonation				corrosion caused by chlorides (other than seawater)			alternating freeze-thaw action				chemically aggressive environment			abrasion		
	X0	XC1	XC2	XC3	XC4	XD1	XD2	XD3	XF1	XF2	XF3	XF4	XA1	XA2	XA3	XM1	XM2	XM3
CEM II/B-LL	x	x	x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

x... usable for the given degree of environment

0... usable for the given degree of environment excluded

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