

# Blast Furnace Cement

CEM III/B 42,5 N-LH/SR

IJMUIDEN

ENCI

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## 1. Standards and certificates

Cement type	Certificate	Standard	Certificate N°
CEM III/B 42,5 N-LH/SR	CE	EN 197-1	0956-CPR-1102.1067
CEM III/B 42,5 N-LH/SR	KOMO	BRL 2601	1102-15-1067
CEM III/B 42,5 N-LH/SR	Benor	NBN B12	15/09/331/1

## 2. Declared composition

	Units	Average Values	Requirements	
			Min	Max
<i>Constituents in % of the sum of the principal and secondary constituents</i>				
Clinker (K)	%	29	20	34
Slag (S)	%	68	66	80
Filler	%	3	-	5
<i>Additions in % of the cement</i>				
Setting regulator	%	5,0	-	-
Grinding agent	%	0,035	-	-
Reducing agent*	%	0	-	-

## 3. Chemical properties

The chemical characteristics are determined in accordance with EN 196-2.

	Units	Average Values	Requirements	
			Min.	Max.
CaO	%	44	-	-
SiO <sub>2</sub>	%	28	-	-
Al <sub>2</sub> O <sub>3</sub>	%	11	-	-
Fe <sub>2</sub> O <sub>3</sub>	%	1	-	-
Sulfate SO <sub>3</sub>	%	2,8	-	4,0
Insoluble residue	%	2,9	-	5,0
Loss on ignition	%	1,47	-	5,0
Chlorides	%	0,08	-	0,10
Chromium (VI)*	%	< 0,0002	-	0,0002
Na <sub>2</sub> O equivalent	%	0,77	-	-

\* In accordance with the Regulation EC 1907/2006 (Reach), the soluble chromium (VI) content is limited to a maximum of 0.0002%. The chromium (VI) content is determined in accordance with EN 196-10.

#### 4. Physical characteristics

The physical characteristics are determined according to the standardised testing methods stated in the second column.

	Test method	Units	Average Values	Requirements	
				min	max
Normal consistency with water	EN 196-3	%	30,9	-	-
Begin setting	EN 196-3	minuten	240	60	-
End setting	EN 196-3	uren	280	-	-
Stability	EN 196-3	mm	1	-	10
Specific surface (Blaine)	EN 196-6	cm <sup>2</sup> /gr	4500	-	-
Sieving oversize of 200 µm	EN 196-6	%	0	-	-
Heat of hydration - 7d	-	J/g	229	-	-
Mass density				-	-
Absolute	-	kg/m <sup>3</sup>	2950	-	-
Apparent	-	kg/m <sup>3</sup>	1030	-	-
C-Waarde	-		1,50	-	-

#### 5. Mechanical characteristics

The cement's compressive strength, measured on of standardised mortar, is determined in accordance with EN 196-1.

Compressive strength	Units	Average Values	Requirements	
			min.	max.
At 1 day	MPa		-	-
At 2 days	MPa	12	10,0	-
At 7 days	MPa	33	-	-
At 28 days	MPa	56	42,5	62,5

#### 6. Production and packaging

This cement is available in the following packaging :

Ship bulk	Lorry bulk	Bag
X	X	-

#### 7. The management system of the plant is certified



#### 8. Declaration of performance compliant to CPR(EU) n° 305/2011

Identification : 0956-CPR-1102.1067

Website [www.enci.nl](http://www.enci.nl)

*The values given above are average values provided as a guideline. The guaranteed limits are shown in the requirement column.*