

Quality Certificate of cement

Type of cement : **CEM II/A-V 42,5R**

Requirements acc. to: EN 197-1:2011

Values obtained for the period of: **November 2022**

	Unit	Results	Requirements acc. to: EN 197-1:2011
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1.Properties (by standards)

Compressive strength			
Early strength, after 2 days	MPa	26,1	≥ 20
Standard strength, after 28 days (results from previous month)	MPa	54,3	≥ 42,5 i ≤ 62,5
Initial setting time	min	195	≥ 60
Expansion of cement	mm	0,5	≤10
Sulfate content (as SO ₃)	%	2,92	≤ 4,0
Chloride content Cl ⁻	%	0,081	≤ 0,10
Loss on ignition ^{a)}	%	-	-
Insoluble residues ^{a)}	%	-	-

2. Additional information

Laser particle size distribution passing 8 µm/32 µm	%	32/73	-
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a)only for CEM I and CEM III

Anna Kozłowska

Kierownik Jakości
Anna Kozłowska
Cementownia Kujawy w Bielawach

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stamp/signature