

**PORTLANDCEMENT
CEM II/A-L 42.5 R**

Certificate of compliance № 413 is valid until 28.04.2027

Parameters	EN 197-1	Actually
Chemical composition of Cement		
Loss on ignition	Not normalized	5-8 %
SiO ₂	“ ”	19.0 -21.6 %
Al ₂ O ₃	“ ”	4,9 – 5.9 %
Fe ₂ O ₃	“ ”	3.0 – 3.5 %
CaO	“ ”	57.0 – 61.5 %
MgO	No more than 5 %	2.3 %
SO ₃	≤ 4.0 %	2.80 %
Na ₂ O equ.	Not normalized	0.7 %
Cl	≤ 0.1 %	0.016 %
Insoluble residue	Not normalized	4.8 %
Blain	Not normalized	4400 cm ² /g
Mineralogy of Clinker		
C ₃ S	not normalized	60.0-68%
C ₂ S	“ ”	11-19%
C ₄ AF	“ ”	8-13%
C ₃ A	“ ”	9-12%
MgO	No more than 5 %	1.5-2.8%
Physical Parameters		
Sieve residue on 0.080 μm	not normalized	0.08 - 0.12 %
Setting time:		
Initial Setting time:	No earlier than 75 min	130min – 180min
Final Setting time:	not normalized	190min – 235min
Soundness (expansion)	≤ 10mm	0.1-0.15 mm
Water consumption		28,8 – 30,8 %
Compressive Strength MPA		
After 2 days	≥ 20.0 Mpa	25.0– 28.0 Mpa
After 7 days		40 – 43 Mpa
After 28 days	≥ 42.5 Mpa	49.0 - 51.0 Mpa

Plant quality manager:



N. Kesauri