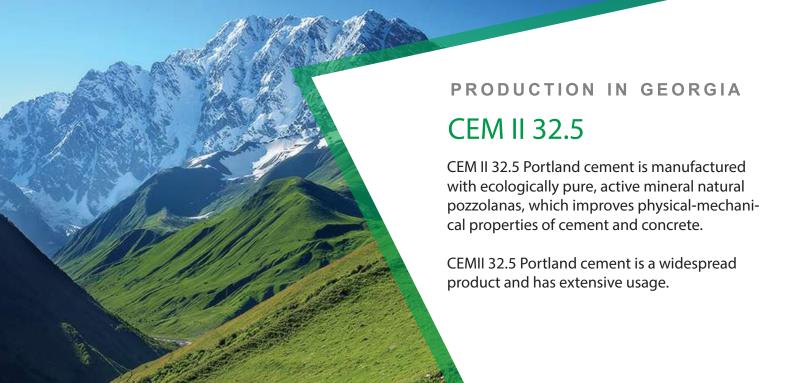
# PRODUCTION

for better building **HEIDELBERG**CEMENT Production
in Georgia

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# HEIDELBERGCEMENT PRODUCTION IN GEORGIA for better building



# **HEIDELBERG**CEMENT

### **Technical Characteristics**

Characteristic name		CEM I 42.5R		CEM I 42.5N		CEM I 32.5R-SR5		CEM II 32.5N		CEM III 42.5N		MC 22.5 X	
		Norm	Actual	Norm	Actual	Norm	Actual	Norm	Actual	Norm	Actual	Norm	Actual
Setting times/min	Initial	≥60	120	≥60	140	≥75	115	≥75	140	≥60	150	≥60	170
	Final	ı	200	-	220	-	195	-	205	1	220	-	260
Blaine cm²/g		ı	4400	-	4000	-	3450	-	3700	-	4300	-	4500
Compressive strength 2 days / mpa		≥20	27	≥10	22	≥10	19	-	14	≥10	20	-	7
Compressive strength 7 days / mpa		-	-	_	-	-	-	≥10	26	-	-	≥10	17
Compressive strength 28 days / mpa		≥42.5	52	≥42.5	50	≥32.5	44	≥32.5	39	≥42.5	50	≥22.5	28
SO <sub>3</sub> %		≤4.0	2,5	≤3.5	2,4	≤3.5	2,8	≤3.5	2,5	≤3.5	2,5	≤3.0	2,8
Volume change / mm		≤10	Steady	≤10	Steady	≤10	Steady	≤10	Steady	≤10	Steady	≤10	Steady



### PRODUCTION IN GEORGIA

HeidelbergCement is one of the acclaimed leaders on the global market of the building materials production and is listed among the three major cement and concrete producers worldwide. The company employs some 52,500 people at 2.500 locations in more than 40 countries.

HeidelbergCement entered **the** Georgian market in 2006. Company operates 4 cement plants in Kaspi, Rustavi and Poti regions. Plants capacity reaches 2 million tones per year. Besides the domestic market, HeidelbergCement (Georgia) exports product to Azerbaijan.

# **HEIDELBERG**CEMENT

Cement type CEM II 32.5 is used for manufacturing C8/10 – C25/30 class concretes, ferroconcretes, their composite and monolithic constructions such as:

- Building mortars
- Road-building constructions
- Average height buildings
- Protective and bounding constructions for sea and river embankments
- Dams and canals
- Waste depots





# **HEIDELBERG**CEMENT

PRODUCTION IN GEORGIA

Novelty: MC 22.5 X (EN413-1)

product MC 22.5 X, which is specially designed for the following use:

- Bricks and blocks



HeidelbergCement offering to consumers a new and manufactured to produce masonry mortar

- Stone masonry construction
- Stucco production



### PRODUCTION IN GEORGIA

# **CEM III 42.5N**

Blastfurnace cement produced with granulated blastfurance slag and suitable for use as an alternative to Sulfate-resisting Portland cement in most aggressive ground conditions. Concrete made on the basis of this cement has following advantages:

- Lower Alkali content
- Resistance against sulfate attack
- Reduced permeability
- Reduced risk of thermal cracking
- Lower Heat of Hydration
- Good strength development

# **HEIDELBERG**CEMENT

Sulfate resistant cement is intended for hydro technical, underground and sea buildings. The product is used for manufacturing concretes with the following special compliance requirements:

- Resistance to sulfate corrosions
- Resistance to sulfate corrosions, when constant freezing defrosting or drying up damping takes place simultaneously

Sulfate corrosion of concrete occurs as a result of the influence of natural sulfur-containing waters. After penetrating into concrete (if C2O excess is found), sulfur-containing sulfate water generates cement "bacillus" (etringite), which expands and activates internal pressure and tension in the concrete mass and accordingly, deformation, fracture and destruction of concrete.





# **HEIDELBERG**CEMENT

### PRODUCTION IN GEORGIA

# CEM I 42.5

CEM I 42.5 Portland cement is for general building purpose and is used for manufacturing of composite, monolithic constructions and structures made of high class C20/25–C45/55 concretes and ferroconcretes.

Area of usage of CEM I 42.5 cement type can be the following:

- hydro technical and sea structures built in accordance with modern technologies
- bridges and highways
- high-rise buildings and skyscrapers
- protective and bounding constructions for embankments
- tunnels and underground railroads
- Airstrips

