



1 GENERAL INFORMATION

Çimsa Resistant LA (CEM I 52.5 N) Portland cement comprises only Portland cement clinker and gypsum, following the TS EN 197-1:2012 standard. The product is formulated to achieve high ultimate strength in concrete.

The advantages offered by Çimsa Resistant LA Portland cement for applications;

- High early strength performance makes this cement ideal for metro tunnels and precast projects, enabling faster form removal and accelerating precast manufacturing.
- Greater heat generation during hydration provides an advantage in cold weather, helping to mitigate low ambient temperature effects and supporting continuous production.
- A low equivalent alkali content minimizes the risk of alkali-aggregate reactions that could otherwise lead to durability issues.
- Compatibility with all typical concrete additives (such as plasticizers, air-entraining agents, and setting retarders) ensures versatile use of Çimsa Resistant LA cement in various applications.

2 AREAS OF APPLICATION

Some application areas of Çimsa Resistant LA Portland cement, which is suitable for general use, are as follows:

- With its high ultimate strength, the product is designed to offer the best results for building reinforcement projects using high-strength concrete, prefabricated, pre-stressed concrete, concrete crossbars, and thin-section reinforced concrete.
- With its reliable strength and stable color, the product shall be used in the production of construction chemicals and in the production of architectural concrete dominated by exposed concrete surfaces.

3 PRODUCTION

Stability is at the focal point of Çimsa - Afyon Çimento production facilities, the variability in product parameters is minimized by the controls performed in every process from raw material to delivery. Production processes are certified according to EN ISO 9001, EN ISO 14001, EN ISO 50001, ISO 10002 and ISO 45001 standards.

4 CHEMICAL PROPERTIES

Features	Çimsa Values	Standard Limits (EN 197-1)	
		Min	Max
Insoluble Insoluble	0,2 - 0,5	-	5,0
SiO ₂	18,5 - 20,0	-	-
Al ₂ O ₃	5,0 - 5,7	-	-
Fe ₂ O ₃	2,5 - 3,2	-	-
CaO	62,0 - 65,0	-	-
MgO	1,2 - 2,0	-	-
SO ₃	2,6 - 3,2	-	4,0
Loss on Ignition	1,5 - 2,5	-	5,0
Na ₂ O	0,1 - 0,2	-	-
K ₂ O	0,4 - 0,6	-	-
Chloride (Cl)	0,01 - 0,03	-	0,10
Na ₂ Eq	0,40-0,60	-	-

5 PHYSICAL PROPERTIES

Properties	Çimsa Values	Standard Limit (EN 197-1)	
		Min	Max
Specific Weight	3,14 gr/cm ³	-	-
Specific Surface (Blaine)	4000-5300 cm ² /gr	-	-
Initial Setting	140 -220 Dakika	60	-
Final Setting	180 - 300 Dakika	-	-
Water	%26-30	-	-
Soundness (Le Chatelier)	1,0 mm	-	10
0,045mm Residue on Sieve	%0,2-0,4	-	-
2 - Day Compressive	28-33 MPa	20	-
28 - Day Compressive	57-63 MPa	52,5	-

6 QUALITY CONTROL

Çimsa Resistant LA cement is subjected to quality control in accordance with EN 197-1 standards. The product is offered in domestic/foreign markets with CE certificate

7 SAFETY INSTRUCTIONS

Standart safety requirements for general cements are observed. For more information, please see the Çimsa Resistant LA cement safety data sheet

8 STORAGE CONDITIONS AND SHELF LIFE

Çimsa Resistant LA cement should be stored in dry and sheltered environments. In this case, it retains its properties for at least 6 months. Based on previous studies, it has been observed that it retains its properties for more than a year. It should not be stacked on top of each other more than 10 bags or 2 pallets. The product should be stored in its original packaging. When not in use, the package should be tightly closed.

