

Çimsa Classic Pro 52,5

TECHNICAL DATA SHEET

1 GENERAL INFORMATION

According to the ASTM C150, Çimsa Classic Pro 52.5 grey Portland cement consists solely of Portland cement clinker and gypsum. The product is formulated to achieve high ultimate strength in concrete.

Advantages in applications;

- The product provides high early strength, making it ideal for use in metro tunnels and precast applications to reduce formwork time. The product also accelerates precast manufacturing.
- The product generates more heat during hydration, which is advantageous in cold weather. This helps mitigate the effects of low ambient temperatures and facilitates manufacturing.
- All common concrete additives (e.g., plasticizers, air-entraining agents, setting retarders) can be used with Çimsa Classic Pro 52.5 cement.

2 AREAS OF APPLICATION

Çimsa Classic Pro 52.5 grey Portland cement (Type I/ASTM C150), suitable for general use, finds application in the following areas:

- With its high ultimate strength, the product is suitable for manufacturing building reinforcement projects, high-strength concrete, prefabricated and pre-stressed concrete, concrete beams, and thin-section reinforced concrete.
- The product's consistent strength and stable color make it well-suited for producing construction chemicals and architectural concrete dominated by exposed concrete surfaces.

3 PRODUCTION

Stability is a central focus at Çimsa's production facilities, and product parameter variations are minimized through controls implemented at every process stage, from raw materials to delivery. The production processes carry certifications in compliance with EN ISO 9001, EN ISO 14001, EN ISO 50001, ISO 10002, and ISO 45001 standards.

4 CHEMICAL PROPERTIES

Properties	Çimsa Values (%)	Methods	Standard Limit (ASTM C 150)	
			Min.	Max.
L.O.I	2,50- 3,30	ASTM C-114	-	3,50
Free Lime	1,00-2,00		-	-
I.R	0,20-0,40		-	1,50
SiO ₂	19,0-20,0	XRF	-	-
Al ₂ O ₃	4,5-5,5		-	-
Fe ₂ O ₃	2,0-3,0		-	-
CaO	63-65		-	-
MgO	2-3		-	6,00
SO ₃	2,5-2,90		-	3,00
Na ₂ O	0,30-0,40		-	-
K ₂ O	0,80-1,0		-	-
Na ₂ O.Eq	0,90-1,0		-	-

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Date of Publication: 29.06.2022
Date of Revision / No: 24.07.2023/01

Clinker Mineralogical Composition	Çimsa Values (%)	Methods	Standard Limit (ASTM C 150)	
			Min.	Max.
C ₃ S	%	> 60	-	-
C ₂ S	%	< 15	-	-
C ₃ A	%	< 8	-	8,00
C ₄ AF	%	> 10	-	-

5 PHYSICAL AND MECHANICAL PROPERTIES

Properties	Çimsa Values (%)	Methods	Standard Limit (ASTM C 150)		
			Min	Max	
Specific Surface (Blaine)	m ² /kg	320-350	260	-	
Residue on 0,045 mm Sieve	%	1,5-2,5	-	-	
Air Content	%	3,0-4,0	-	12,0	
Autoclave	%	0,01-0,02	-	0,8	
Initial Setting Time	Min.	130-170	45	-	
Final Setting Time	Min.	180-220	-	375	
Compressive Strengths	3 Days	PSI 4500	ASTM C-109	1740	-
	7 Days	PSI 5500		2760	-
	28 Days	PSI 6500		4060	-

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6 QUALITY CONTROL

Çimsa Classic Pro 52.5 cement undergoes quality control in accordance with ASTM C 150 standards. The product is available in both domestic and foreign markets with a CE certificate.

7 SAFETY INSTRUCTIONS

We adhere to standard safety requirements for general cements. For more detailed information, please refer to the safety data sheet for Çimsa Classic Pro 52.5 cement.

8 STORAGE CONDITIONS AND SHELF LIFE

Çimsa Classic Pro 52.5 should be stored in dry and sheltered environments. This ensures the product retains its properties for a minimum of 6 months. Based on previous studies, the product has been observed to maintain its properties for over a year. Bagged products should not be stored for more than 3 months. It is advised not to stack more than 10 bags or 2 pallets on top of each other. The product must be stored in its original packaging, and the package should be tightly closed when not in use.

