

SUPER WHITE

building chemicals



White cement with
high performance!

ÇIMSA

Çimsa
Super White
Cement
**Building
Chemicals
Applications**





White Portland Cement is a product, that has been used for more than 100 years around the world, preferred for obtaining aesthetical appearances and high strength levels.

White Cement, which was started to be produced in 1990 in the Mersin Factory, has been supplied for more than 20 years to the domestic and international markets by Çimsa under the brands of Super White and Eco-White. With the Hacı Ömer Sabancı White Cement Facility, that started production in 2000, total white cement production capacity of the Mersin Factory was increased to 1.1 Mta and Çimsa became one of the three leading actors in the world's white cement market. In addition, Mersin Factory achieved to be the cement facility having the flexibility to produce both gray and white cement from the same line for the first time in the world. Today, Çimsa is one of the biggest white cement manufacturers in the world that sells directly to more than 50 countries in the world both through its terminals and Mersin Port.



**WHITE PORTLAND CEMENT TS 21 BPC
52,5 R / 85 EUROPEAN STANDARD
EN 197-1 CEM I 52,5**

Chemical Properties		Çimsa Values	EN 197-1 Limits	
			Min.	Max.
Insoluble Residue	%	0,18	-	5,0
SiO ₂	%	21,6	-	-
Al ₂ O ₃	%	4,05	-	-
Fe ₂ O ₃	%	0,26	-	-
CaO	%	65,7	-	-
MgO	%	1,30	-	-
SO ₃	%	3,30	-	4,0
Loss on Ignition	%	3,20	-	5,0
Na ₂ O	%	0,30	-	-
K ₂ O	%	0,35	-	-
Chloride (Cl ⁻)	%	0,01	-	0,1
Free CaO	%	1,60	-	-

Physical and Mechanical Properties				
Specific Weight	gr/cm ³	3,06	-	-
Specific Surface Area (Blaine)	cm ² /gr	4600	-	-
Whiteness (Y value as per CIE system)	%	85,5	85,0	-
Initial Setting	minute	100	45,0	-
Final Setting	minute	130	-	-
Water	%	30,0	-	-
Volume Consistency (Le Chatelier)	mm	1,0	-	10,0
Residue in 0,045 mm Sieve	%	1,0	-	-
Residue in 0,090 mm Sieve	%	0,1	-	-
Compressive Strength (2 days)	MPa	37,0	30,0	-
Compressive Strength (7 days)	MPa	50,0	-	-
Compressive Strength (28 days)	MPa	60	52,5	-

WHITE PORTLAND CEMENT ASTM STANDARD C-150 TYPE 1

Chemical Properties		Çimsa Values	ASTM C-150 Type 1 Limits	
			Min.	Max.
Insoluble Residue	%	0,18	-	0,75
MgO	%	1,30	-	6,0
SO ₃	%	3,30	-	3,50
Loss on Ignition	%	2,60	-	3,0

Physical and Mechanical Properties				
Whiteness (Hunter Lab System)	L,a,b	92,25	-	-
		-1,63		
		3,12		
Specific Surface Area (Blaine)	m ² /kg	460	-	-
Initial Setting	minute	100	45,0	-
Final Setting	minute	130	-	375
Autoclave Expansion	mm	0,09	-	0,8
Compressive Strength (2 days)	PSI	4360	1740	-
Compressive Strength (7 days)	PSI	5220	2760	-
Compressive Strength (28 days)	PSI	6430	4060	-

Aesthetical Super White

- It has minimum 85% whiteness.
- It has been produced from the raw material with high purity
- It allows the preparation of perfect mixtures with the color pigments.
- It allows cement based paint manufacturing.
- It allows acquisition of bright and decorative surfaces in the floorings.



Economic Super White

- With the use of less amount pigments, it provides perfect coloring.
- When used with the pigments in plaster production, it does not require extra paint and provides a cost advantage.
- Especially with very high adhesion strength, it reduces the polymer and chemical additives and; therefore, provides reduction in cost.
- With the high fineness value, it eliminates the use of chemical additives adjusting the viscosity.

Strong Super White

- By means of its stable strength values, it allows the stable product manufacturing.
- With its high early and ultimate strength, it provides high cement dosing advantage compared to the gray cement.
- It increases the production speed with its high early strength gain advantage.
- Owing to its high bond and adhesion strength it has strength characteristics that is beyond ordinary gray cements.

Durable Super White

- It keeps the water absorption of the final product at minimum.
- Since it is fine-grinded, it provides the product with optimum malleability.
- With its superior imperviousness, it maximizes the endurance of the final products against freezing and thawing in the outer surface applications.



The Products where Çimsa Super White is used in the Building Chemicals Production

Building Chemicals in which Çimsa Super White is used are the grouting, ready-mixed plaster and mortars, satin plaster, cement based paint, floor mortars, ceramic adhesives, and insulation plasters.

Things to be Paid Attention in Application

- Attention should be paid that in the production of the building chemicals the chemical additives and pigments to be used together with the white cement have organic origin.
- Attention should be paid that the chemical additives to be used in the mixtures with white cement are transparent and white coloured.
- In the color pigment applications, they should be homogenized carefully.
- The temperature of the air where the mixtures with white cement content are to be applied should be above zero degrees celcius.

Our Quality and Compliance Documents



General Directorate

Kısıklı Cad. No: 4 Sarkuysan - Ak İş Merkezi,
S Blok, Altunizade - İstanbul / Turkey

Phone: (+90 216) 651 53 00

(+90 216) 651 05 00

(+90 216) 651 03 85

Fax : (+90 216) 651 14 15

Çimsa Mersin Factory

Toroslar Mah. Tekke Cad. Yenitaşkent - Mersin / Turkey

Phone: (+90 324) 454 00 60

Fax : (+90 324) 454 00 75

Customer Technical Support

(+90 800) 531 11 15

(+90 324) 454 07 75

customersupport@cimsa.com.tr

www.cimsa.com.tr

ÇİMSA

