



1 GENERAL INFORMATION

Inspira is the first CEM I 62,5R type white cement in the world developed for precast applications by Formula Center and is separated from the other cements by its whiteness as well as its strength achievement feature. Inspira offers the advantages of early stripping, providing similar strength with lower cement amount and achieving the mentioned strength very fast.

The advantages offered by **Inspira** to the Applications;

- High early and final strength,
- Early setting time,
- High whiteness,
- Early removal from the mold,
- Saves heat cure time.

2 APPLICATION AREA

Inspira is used in the precast sector for applications requiring early removal from the mold due to its high strength and fast setting. Some application examples of **Inspira** are;

- Precast industrial products,
- Terrazzo tile industrial products,
- Pumice bricks industrial products,
- Sleepers industrial products,
- Autoclaved aerated concrete.

3 PRODUCTION

Stability is the focal point of the Çimsa production plants and the variability in the product parameters is minimized by the controls at each stage during the process from raw material to delivery. Production processes are certified according to EN ISO 9001, EN ISO 18001 and EN ISO 14001 standards.

4 PHASE COMPOSITION

Main Mineral Phases : C₃S, C₂S

Auxiliary Mineral Phases: C₃A

5 WHITENESS

Whiteness of **Inspira** is done according to L, a, b, and Y values with regard to Hunter Lab systematic.

L (Brightness)	93,1
a (Greenness)	-1,54
b (Yellowness)	2,75
Y (Whiteness)	87,0

6 CHEMICAL FEATURES

Features	Çimsa Values	Standard Limits (EN 197-1)	
		Min.	Max.
Insoluble Residue	% 0,18	-	5,0
SiO ₂	% 21,6	-	-
Al ₂ O ₃	% 4,2	-	-
Fe ₂ O ₃	% 0,26	-	-
CaO	% 66,5	-	-
MgO	% 0,30	-	-
SO ₃	% 3,2	-	4,0
Ignition Loss	% 1,30	-	5,0
Na ₂ O	% 0,63	-	-
K ₂ O	% 0,35	-	-
Klorür (Cl ⁻)	% 0,01	-	0,1
Free CaO	% 2,00	-	-

7 PHYSICAL AND MECHANICAL FEATURES

Features	Çimsa Values	Standard Limits (EN 197-1)	
		Min.	Max.
Specific Gravity	gr/cm ³ 3,09	-	-
Blaine	cm ² /gr 5800	-	-
Whiteness Y	% 87,0	85,0	-
Vicat Initial Set	Dakika 60	45,0	-
Vicat Final Set	Dakika 90	-	-
Water	% 30,5	-	-
Volume Stability (Le Chatelier)	mm 1,0	-	10,0
Residue at 45 (microns)	% 1,0	-	-
Residue at 90 (microns)	% 0,1	-	-
Compressive Strength (2 days)	MPa 45,0	40,0	-
Compressive Strength (7 days)	MPa 54,0	-	-
Compressive Strength (28 days)	MPa 65,0	62,5	-

8 QUALITY CONTROL

Çimsa Inspira Cement is subject to quality control conforming to EN 197-1 standard. It is presented to foreign markets with ETA certificate.

9 QUALITY CONTROL

Standard safety requirements related to general cement are obeyed. For more information, please see Çimsa Inspira Safety Data Sheet.

10 STORAGE CONDITIONS AND SHELF LIFE

It must be kept in proper ambient conditions (dry and protected) In such a case, they keep their properties for at least 6 months. Based on the studies carried out before, it is observed that they keep their properties more than one year. It should not be piled by more than 10 bags.