

NONA



TECHNICAL DATA SHEET

1 GENERAL INFORMATION

Nona (CEM I 52.5R) has the ability to clean itself and the environment against gas emissions thanks to the nano elements in special phase structure. It turns harmful compounds such as NO_x, SO_x into salt in the application where it is used, cleans the air and itself with the rain. Advantages of Çimsa **Nona** cement for applications:

- Self Cleaning and Air Purifying,
- High Whiteness,
- High early strength,
- Low alkali content,
- Low Chromium +6 content.

2 APPLICATION AREA

Nona Cement application areas are:

- Exterior coatings,
- Precast manufacturing,
- External surface plaster,
- Park-Garden furniture,
- Gross 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 and EN ISO 18001 standards.

4 PHASE COMPOSITION

Main mineral Phases : C₃S, C₂S

Auxiliary Mineral Phases : C₃A

5 CHEMICAL COMPOSITION

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

L (Brightness)	92.2
a (Greenness)	-1.65
b (Yellowness)	2.90
Y (Whiteness)	88.0

5 CHEMICAL COMPOSITION

Features	Çimsa Values	Standard Limits (EN 197-1)	
		Min.	Max.
Insoluble Residue	0.18 %	-	5.0
SiO ₂	21.6 %	-	-
Al ₂ O ₃	4.05 %	-	-
Fe ₂ O ₃	0.28 %	-	-
CaO	65.7 %	-	-
MgO	1.30 %	-	-
SO ₃	3.30 %	-	4.0
Ignition Loss	3.20 %	-	5.0
Na ₂ O	0.30 %	-	-
K ₂ O	0.35 %	-	-
Chlorine (Cl)	0.01 %	-	0.1
Free CaO	2.20 %	-	-

7 PHYSICAL AND MECHANICAL FEATURES

Features	Çimsa Values	Standard Limits (EN 197-1)	
		Min.	Max.
Specific Gravity	g/cm ³ 3.06	-	-
Blaine	cm ² /g 4600	-	-
Whiteness Y	85.5 %	-	-
Vicat Initial Set	Minute 100	45.0	-
Vicat Final Set	Minute 120	-	-
Water	30.0 %	-	-
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 37.0	30.0	-
Compressive Strength (7 days)	MPa 50.0	-	-
Compressive Strength (28 days)	MPa 60.0	52,5	-

8 QUALITY CONTROL

Nona Cement is subject to quality control conforming to EN 197-1 standards. It is presented to foreign markets with CE certificate.

9 SAFETY INSTRUCTIONS

Standard safety requirements for general cements are followed. Please refer to the **Nona** cement Safety Data Sheet for more information.

10 STORAGE CONDITIONS AND SHELF LIFE

Nona Cement must be stored in dry and sheltered conditions. In this case, it will retain its properties for a minimum of 6 months. Based on previous studies, it has been observed to maintain its properties for more than a year. No more than 10 bags or 2 pallets should be stacked in a row. The product must be stored in its original package. In cases where it is not used, the mouth of the package must be tightly closed.