



**ÇİMSA**

*CEM II/A-M (P-L) 42,5 R)*  
**IZO POWER 42,5**  
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# IZO POWER 42,5



CEM II/A-M (P-L) 42,5 R)



LASTING STRENGTH, ECO-FRIENDLY SOLUTION

50  
KG



Çimsa Izo Power 42.5, with its pozzolan and limestone content, reduces micro-pores in concrete, providing impermeability and long-term durability. Thanks to its high fineness and void-filling effect, it delivers superior performance in grout and soil stabilization applications. Compared to Portland cement, it ensures lower greenhouse gas emissions, reducing the carbon footprint in modern projects. In mass concrete applications and hot weather conditions, its controlled hydration heat advantage helps minimize the risk of cracking. Its compatibility with all typical admixtures makes it a safe choice for a wide range of applications such as ready-mix concrete, industrial floors, dams, bridges, foundations, and coastal structures.

**ÇİMSA IZO POWER 42.5 CEM II/A-M (P-L) 42,5 R) PORTLAND COMPOSITE CEMENT IS MANUFACTURED IN COMPLIANCE WITH TS EN 197-1:2012 AND IS CHARACTERIZED BY THE FOLLOWING PROPERTIES:**



Chemical Properties	Çimsa Values (%)	Standard Limits (EN 197-1)	
		min	max
Insoluble Residue	5 - 12	-	-
SiO <sub>2</sub>	20.5 - 24,0	-	-
Al <sub>2</sub> O <sub>3</sub>	5.5 - 7.5	-	-
Fe <sub>2</sub> O <sub>3</sub>	2.6 - 3.6	-	-
CaO	54.5 - 59.5	-	-
MgO	2.2 - 2.8	-	-
SO <sub>3</sub>	3.0 - 4.0	-	4,0
Loss On Ignition	1.5 - 4.5	-	-
Na <sub>2</sub> O	0.15 - 0.55	-	-
K <sub>2</sub> O	0.9 - 1.2	-	-
Chloride (Cl)	0.0070 - 0.0180	-	0,10
Free CaO	0.8 - 2.0	-	-

Physical Properties	Çimsa Values	Standard Limits (EN 197-1)	
		min	max
Specific Gravity	3,04 gr/cm <sup>3</sup>	-	-
Specific Surface (Blaine)	3200-3900 cm <sup>2</sup> /gr	-	-
Initial Setting	180-280 min	60	-
Final Setting	230 - 360 min	-	-
Water	26.5-28.5 %	-	-
Volume Constancy (Le Chatelier)	1,0 mm	-	10
0.045 mm Retained Material	2.5-5.5 %	-	-
Compressive Strength 2 Days	23-33 MPa	20,0	-
Compressive Strength 28 Days	47-55 MPa	42,5	62,5



# ADVANTAGES



## **HELPS PREVENT EFFLORESCENCE**

The pozzolanic content of Çimsa Izo Power 42.5 reduces the amount of calcium hydroxide ( $\text{Ca}(\text{OH})_2$ ) in the concrete, preventing it from migrating to the surface and forming white stains. This minimizes efflorescence-related aesthetic and surface problems, preserving durability and appearance in exterior plasters.



## **HELPS PREVENT, CRACK FORMATION**

The fine filler material in Çimsa Izo Power 42.5 enhances the resistance of concrete against shrinkage cracks. This prevents possible aesthetic defects on the surface and supports the long-term performance of the concrete.



## **HIGH DURABILITY**

Çimsa Izo Power 42.5, with its special composition that enhances durability, delivers superior performance under harsh environmental conditions. By improving impermeability, it provides long-lasting protection against water and chemical effects. It is a reliable choice for bridges, viaducts, tunnels, and road pavements where high durability is essential.



## **RESISTANT TO SULFATE ATTACK**

Thanks to its pozzolanic content, Çimsa Izo Power 42.5 reduces calcium hydroxide formation, while its high mineral additives and fine filler properties suppress harmful reactions. This increases concrete impermeability and minimizes strength loss and surface deterioration in structural elements exposed to sulfate-rich soils and groundwater or seawater.



## **CONTROLLED HYDRATION HEAT**

The controlled development of hydration heat in Çimsa Izo Power 42.5 reduces the risk of cracking in mass concrete applications and supports the long-term durability of structures. This makes it a safe solution for large-scale projects such as dams, foundations, and infrastructure works.



## **LOW CARBON FOOTPRINT**

Produced with reduced clinker content thanks to its pozzolanic materials, Çimsa Izo Power 42.5 ensures lower  $\text{CO}_2$  emissions during production and helps reduce the carbon footprint. With its eco-friendly nature, it contributes to sustainable construction practices.



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