



ÇİMSA

CEM II/A-M (P-Q) 42.5 R
IZO POWER 42,5
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IZO POWER 42,5



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LASTING STRENGTH, ECO-FRIENDLY SOLUTION

50
KG



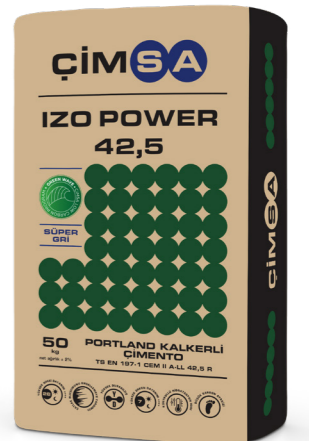
Çimsa Izo Power 42.5, with its natural pozzolan and calcined clay content, is an eco-friendly and sustainable solution. Developed to meet the requirements of all concrete strength classes, Çimsa Izo Power 42.5 Portland Composite Cement delivers strength performance equivalent to Portland cement (CEM I 42.5 R) in concrete production. Thanks to its natural pozzolans, it enhances durability, providing long-term resistance against water and chemical effects. In mass concrete applications and hot weather conditions, its controlled hydration heat advantage helps reduce the risk of cracking. With its fineness and high void-filling capacity, it ensures superior efficiency in grout and soil stabilization applications. It is an ideal choice for a wide range of projects including ready-mix concrete, road pavements, residential buildings, bridges, foundations, and viaducts.

ÇİMSA IZO POWER 42.5 (CEM II/A-M (P-Q) 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	%10,5	-	-
SiO ₂	%23,5	-	-
Al ₂ O ₃	%5,50	-	-
Fe ₂ O ₃	%2,70	-	-
CaO	%57,3	-	-
MgO	%1,50	-	-
SO ₃	%3,40	-	4,0
Loss On Ignition	%4,40	-	-
Na ₂ O	%0,35	-	-
K ₂ O	%0,67	-	-
Chloride (Cl)	%0,050	-	0,1
Free Lime	1,50	-	-

Physical Properties	Çimsa Values	Standard Limits (EN 197-1)	
		min	max
Specific Gravity	3,04 g/cm ³	-	-
Blaine	4380 cm ² /g	-	-
Vicat Initial Set	170 Minutes	60	-
Vicat Final Set	220 Minutes	-	-
Water Demand	27,0 %	-	-
Stability (Le chatelier)	1 mm	-	10
Residue at 45 microns	4,3 %	-	-
Compressive Strength 2 Days	27,0 MPa	20,0	-
Compressive Strength 7 Days	40,0 MPa	-	-
Compressive Strength 28 Days	52,0 MPa	42,5	62,5



ADVANTAGES



HIGH FINAL STRENGTH

By providing high compressive strength at 28 days, it forms a solid foundation for long-lasting structures. It can be confidently used in the design of all concrete classes. Çimsa Izo Power 42.5 demonstrates stable strength performance equivalent to Portland cement.



HELPS PREVENT, CRACK FORMATION

The fine filler material in Çimsa Izo Power 42.5 improves the resistance of concrete against shrinkage cracks. This helps prevent aesthetic defects on the surface while supporting the long-term performance of the concrete.



HIGH DURABILITY

Thanks to its special composition that enhances durability, Çimsa Izo Power 42.5 delivers superior performance under challenging environmental conditions. By improving impermeability, it ensures long-term protection against water and chemical effects. It is a reliable choice for bridges, viaducts, tunnels, and road pavements where high durability is required.



HIGH EARLY STRENGTH

With its high compressive strength at early ages, structural elements quickly gain load-bearing capacity. Rapid strength development within the first 7 days accelerates the formwork cycle, offering advantages in projects with critical timelines.



CONTROLLED HYDRATION HEAT

The controlled development of hydration heat in Çimsa Izo Power 42.5 minimizes 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 components, Çimsa Izo Power 42.5 results in lower CO₂ emissions during production. Its eco-friendly nature contributes to sustainable construction practices.



Eskişehir Plant

İstanbul Karayolu üzeri 22.km.

Çukurhisar/Eskişehir

T: (222) 411 32 00

F: (222) 411 31 31

ÇİMSA