

CEM I 52,5R

PORTLAND CEMENT

Production Sites

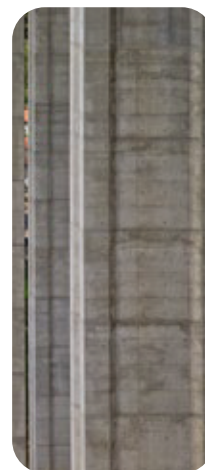
Secil-Outão Plant
Maceira-Liz Plant

Packaging

Bulk

Certification

Cement certified according to NP EN 197-1.
Certificates of Performance Regularity and Declarations of Performance
0856-CPR-0179 (Secil-Outão) and 0856-CPR-0125 (Maceira-Liz)



Product Composition (Cement Core)	95% to 100% Portland Clinker 0% to 5% Other Constituents
Main Characteristics	Grey-coloured, high-heat cement. Quick resistance development (high initial resistance). Final resistances within the rated class values (resistance at 28 days).
Main Applications	Portland CEM I 52.5R Cement is an extraordinarily high performance product. It is used in the manufacture of very high strength, reinforced or pre-stressed concrete, and in situations where high strengths are required within 1 or 2 days of application. CEM I 52.5R Cement is used in: <ul style="list-style-type: none"> • ready-mixed or cast in-situ high and very high initial or final resistance concrete; • pre-stressed concrete at very early ages; • concrete cast in cold weather; • heavyweight prefabrication with high turnover of moulds.
Specific Warnings	The correct development of resistance is very sensitive to the curing process. <ul style="list-style-type: none"> • care should be taken to avoid drying of all concreted parts; • concreting in very hot weather should be avoided. <p>This cement enables high mechanical performance concrete to be manufactured, but the prior study of compositions is recommended to achieve the best performance. The use of this cement is compatible with the introduction of latent hydraulicity additions and the use of admixtures is normal to improve workability with a possible reduction in the water/cement ratio.</p>
Safety Notice	Handling powder cement may cause irritation to the eyes or airways. When mixed with water, it can also cause sensitive skin. The use of a dust mask, goggles, safety gloves and overalls is recommended to protect the hands and the skin. For detailed information refer to the Safety Datasheet.



CHEMICAL CHARACTERISTICS

Properties	Testing Method	Specified Value (1)
Loss on Burning	NP EN 196-2	≤ 5,0%
Insoluble Waste	NP EN 196-2	≤ 5,0%
Sulphate Content (in SO ₃)	NP EN 196-2	≤ 4,0%
Chloride Content	NP EN 196-2	≤ 0,10%

(1) The percentages refer to cement paste.

MECHANICAL CHARACTERISTICS

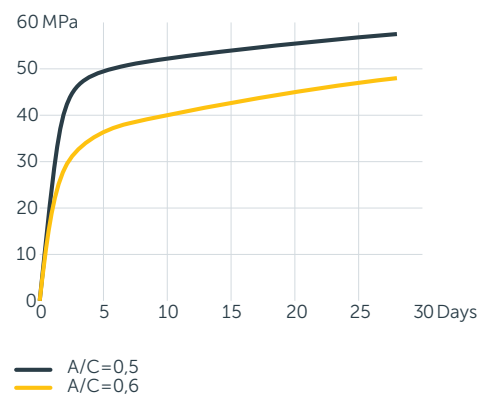
Compressive Strength (MPa)

Resistance during the first days		Reference resistance	NP EN 196-1
2 days	7 days	28 days	
≥ 30	-	≥ 52,5	

PHYSICAL CHARACTERISTICS

Properties	Testing Method	Specified Value
Start of Setting	NP EN 196-3	≥ 45 min
Expandability	NP EN 196-3	≤ 10 mm

Indicative average values of compressive strength of concrete manufactured with 350 kg/m³ of CEM I 52.5R cement



CUSTOMER SERVICE

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