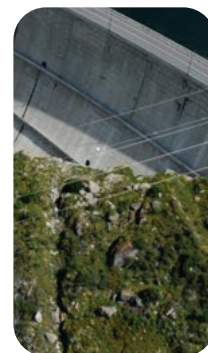
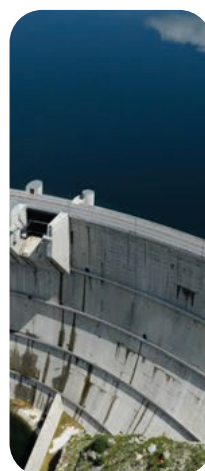


# SUPRATEK CEM I 42,5R PORTLAND CEMENT



**Production Sites**  
Secil-Outão Plant  
Maceira-Liz Plant

**Packaging**  
25kg sacks

**Certification**  
Cement certified according to NP EN 197-1.  
Certificate of Performance and Declaration of Performance  
0856-CPR-0118 (Secil-Outão) and 0856-CPR-0124 (Maceira-Liz)

<b>Product Composition (Cement Core)</b>	95% to 100% Portland Clinker 0% to 5% Other Constituents
<b>Main Characteristics</b>	Grey-coloured, high-heat cement. Very quick development of initial resistance (high initial resistance). Final resistances within the rated class values (resistance at 28 days).
<b>Main Applications</b>	CEM I 42.5R Portland Cement is a high quality, high performance product, widely used in civil engineering works and in the manufacture of high and very high resistance concrete. It is particularly suited to works where a very high resistance is required on the first days after application. The main applications of this cement are: <ul style="list-style-type: none"> <li>• ready-mixed or cast in-situ high and very high initial or final resistance concrete;</li> <li>• high resistance lightweight concrete;</li> <li>• early prestressed concrete;</li> <li>• concrete cast in cold weather;</li> <li>• prestressed lightweight and heavyweight prefabrication with high turnover of moulds and formwork;</li> <li>• sealing and grouting.</li> </ul>
<b>Specific Warnings</b>	The correct development of resistance is very sensitive to the curing process. <ul style="list-style-type: none"> <li>• care should be taken to avoid drying of all concreted parts;</li> <li>• concreting in very hot weather should be avoided.</li> </ul> <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>
<b>Safety Notice</b>	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 Residue	NP EN 196-2	≤ 5,0%
Sulphate Content (in SO <sub>3</sub> )	NP EN 196-2	≤ 4,0%
Chloride Content	NP EN 196-2	≤ 0,10%

(1) The percentages refer to cement paste.

## MECHANICAL CHARACTERISTICS

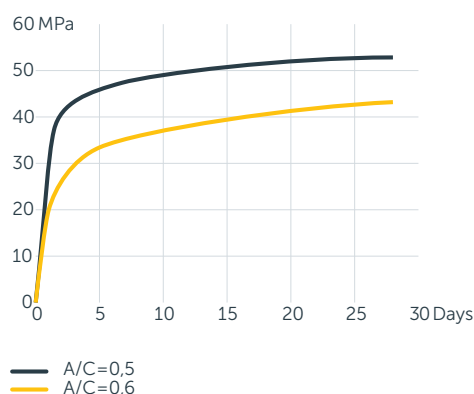
### Compressive Strength (MPa)

Resistance during the first days		Reference resistance	NP EN 196-1
2 days	7 days	28 days	
≥ 20	-	≥ 42,5 e ≤ 62,5	

## PHYSICAL CHARACTERISTICS

Properties	Testing Method	Specified Value
Start of Setting	NP EN 196-3	≥ 60 min
Expandability	NP EN 196-3	≤ 10 mm

### Indicative average values of compressive strength of concrete manufactured with 350 kg/m<sup>3</sup> of CEM I 42.5R cement



## CUSTOMER SERVICE

### CIAC – Customer Information and Service Centre

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