



TECHNICAL DATASHEET Template BENOR

Technical specifications – BENOR certification of cements				Date	
Company	Production unit		BENOR number		CE number
SECIL, Companhia Geral de Cal e Cimento SA	Plant of SECIL Outão		CEP/4738/0451		0856 – CPR – 0118
CEM I 42,5 R CE LA BENOR					
		Properties declared by the producer under the CE mark ¹	Properties certified under the BENOR mark	Average values, verified by the inspection body ²	Average values, only for information
Ordinary cements (subfamilies) constituents and composition	NBN EN 197-1	Portland Cement CEM I			
Main constituents	CEN TR 196-4		K 95.0 L 5.0		
Compressive strength 1d (MPa)	NBN EN 196-1				
Compressive strength 2d and/or 7d (MPa)	NBN EN 196-1	42,5 R		29 / 46	
Compressive strength 28d (MPa)	NBN EN 196-1	42,5 R		58	
Initial setting time (min.)	NBN EN 196-3	Pass		150	
Final setting time (min.)	NBN EN 196-3		≤ 720	220	
Soundness (mm)	NBN EN 196-3	Pass		1.0	
Insoluble residue (%)	NBN EN 196-2	Pass		1.20	
Loss on ignition (%)	NBN EN 196-2	Pass		2.85	
Sulphate content (as SO ₃) (%)	NBN EN 196-2	Pass		3.25	
Chloride content (%)	NBN EN 196-2	Pass			
C ₃ A in clinker (%)	NBN EN 196-2				
Heat of hydration (J/g)	NBN EN 196-8 or 9				
Density (kg/m³)	NBN EN 196-6			3.10	
Content of Na ₂ O-eq (%) ³	NBN EN 196-2		≤ 0,60		
Water requirement	NBN EN 196-3			30.0	
Blaine (cm²/g)	NBN EN 196-6				4220
Sieve residue at 200 µm (%)	NBN EN 196-6		≤ 3.0	0.0	
Specific suitability for use	NBN EN 15-001		All classes		

¹ Properties taken from the Declaration of Performance (DoP) CE

² Values expressed as the average of autocontrol results from the last 12 months. This value is verified by the inspection body.

³ Only for LA cement or cement with a declared maximum level of Na₂O-eq