



PRODUCT DATA SHEET

Pozzocrete 63

Partial Replacement of Portland Cement

Description: Pozzocrete 63 is a high efficiency pozzolanic material, confirming to BS EN 450: Special Type S, for use as a component of cement with Portland clinker (i.e. as a partial replacement of Portland cements). It is produced by careful selection, processing and testing of fly ash, resulting from the combustion of coal used at electricity generating power stations. It is subjected to strict quality control.

General Information:

Presentation:	Finely divided dry powder
Colour:	Light grey
Bulk Weight:	0.9 tonne/m ³
Specific density:	2.3
Loss on Ignition	< 2.5%
Particle size:	< 10% retained on 45 micron sieve
Particle shape:	Spherical
Package:	30 kg bags, 1tonne big-bags and bulk tankers

Recommended uses:

Concrete: General purpose plain and reinforced structural concrete with 28 day strength up to 60 MPa. Special purpose concrete, such as mass concrete, pre-cast concrete, pumpable concrete, self-compacting and self-levelling concrete.

Cement: Blended cements, with Pozzocrete 63 content up to 55%, such as sulfate and chloride resistant and low/very low heat cements.

Mortar: General purpose mortar for plastering/rendering, brickwork/blockwork. Specialised mortars for floor/wall tiles. Flowable mortars for use as structural fill in earthworks.

Grout: General purpose grouts for use in earthworks for the treatment of rock cracks. Grouts for earthworks to be used in anchors.



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Recommended Proportions:

The proportions of Pozzocrete 63 and the other mix constituents should be determined by an appropriate mix design method and testing. The proportion of Pozzocrete 63 used would depend on the required concrete properties, type of Portland cement (Portland clinker) and admixtures used. The following figures are indicative.

Typical replacement levels with Pozzocrete 63

Product	Pozzocrete 63 % total cement content
Low Grade Concrete (up to 30 MPa)	35
Medium Grade Concrete (30-60 Mpa)	30
Pre-cast Concrete	20
Mass Concrete	50
Pumpable Concrete	35
Self Compacting/Levelling Concrete	40
Portland Pozzolana Cement	35
General Purpose Mortar (indoors)	33
General Purpose Mortar (outdoors)	17
Gluing Mortars	25
Flowable Mortars	30 - 95
Grouts for Rock Treatment	33
Grouts for Anchors	17

Typical concrete performance with 25% Pozzocrete w.r.t. PC Concrete

Property	Better	Similar	Worse
Water Demand	Reduced, 5 - 8%		
Workability	Improved		
Stability	Improved Greatly		
Plastic Shrinkage	Reduced		
Plastic settlement	Reduced		
Setting Time	Increased 30 - 60 min		
Heat of Hydration	Reduced Greatly		
Long Term Strength	Increased 15 -20%		
28 day Strength		Similar	
Early Strength (7 days)			Reduced 10 - 15%
Required Curing Period		Similar	
Permeability	Reduced 2 - 5 times		
Sulfate Attack	Reduced Substantially		
Chloride Penetration	Reduced Substantially		
ASR Risk	Minimised		

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