PRODUCT DATA SHEET

Pozzocrete 40

Partial Replacement of Portland Cement

Pozzocrete 40 is a high efficiency pozzolanic material, obtained by selection, processing and testing of power station fly ash resulting from the combustion of coal at electricity generating power stations. It confirms to ASTM C 618 fly ash for use as a component of cement with Portland clinker (i.e. as a partial replacement of Portland cements). Pozzocrete 40 is subjected to strict quality control procedures.

General Information:

Presentation	Finely divided dry powder
Colour	Light grey
Bulk Weight	1.0 tonne per/m3
Specific density	2.3
Loss on Ignition	< 2.5%
Particle size	< 25 % retained on 45 micron sieve
Particle shape	Spherical
Package	1 tonne big-bags and bulk tankers

Recommended uses:

Concrete: General purpose plain and reinforced structural concrete with 28 day strength up to 50 MPa. Special purpose concrete, such as Mass concrete to reduce the heat of hydration, precast concrete, pumpable concrete to improve workability and self-compacting and self-levelling concrete.

Cement: Blended cements with Pozzocrete 40 up to 55% sulfate and chloride resistant and low/very low cements.

Mortars: All types of mortars.

Grout General purpose grouts for use in earthworks for the treatment of rock cracks.

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Recommended dosages:

The proportions of Pozzocrete 40 and the other mix constituents should be determined by an appropriate mix design method and testing. The proportions of Pozzocrete 40 used will depend on required properties of concrete, type of Portland cement(Portland cement) and admixtures used. The following figures are indicative.

Typical replacement levels with Pozzocrete 40

Product	Pozzocrete 40 % total cement content
Mass concrete	50
Low Grade Concrete	20-35
Medium Grade Concrete	20-35
Pre-cast Concrete	20-35
Pumpable concrete	30-35
Self-Compacting Concrete	20-50

Typical concrete performance with 25% Pozzocrete 40

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		