

EcoFine[®] 900 LH is an ultra-superfine, cementitious injection grout for stabilising and strengthening soil and sand substrates

Description

EcoFine[®], an ultra-superfine cementitious soil stabilisation grout is supplied as a ready to use dry powder. EcoFine[®] is a highly permeable grout, suitable for low pressure injection into sandy soil to produce solid foundations.

Uses

EcoFine[®] is an inorganic grouting material composed of ultra-superfine particles, and as a grout has excellent permeability, strength and durability.

It is suitable for sealing and/or stabilising sandy soil foundations, and especially for grouting soils for permanent structures such as foundations, tunnels, dams, oil tanks etc.

- Preventing settlement of roads and embankments to be constructed on weak ground
- Preventing heaving and boiling embankments inside cofferdams
- Stabilisation of soil in zones susceptible to landslides
- Remedying and preventing differential settlement of oil tanks
- Water sealing of joints on water and sewerage mains
- Underground oil storage facilities
- Preventing seepage of river embankments
- Preventing seepage of soil in reclaimed land
- Preventing liquefaction of sandy soil

Advantages

- No soil polluting properties. Consisting entirely of inorganic materials ensures no pollution of underground water or soil.
- Remarkable penetrating abilities. The particle size volume median of EcoFine[®] 900 at d50 is 5.35 microns with a d95 value of 13.87 microns. The specific Surface Blaine fineness of 9900 cm²/g, enables penetration comparable to chemical grouts.
- High hardened strength - the ultra fine grains of the EcoFine[®] are chemically activated, so that curing provides rapid hardening to a high strength. This initial hardening is followed by further hardening during an extended period.
- Excellent durability - after hardening by hydration, EcoFine[®] acquires impermeability, which protects it from underground and sea water, to ensure extremely long durability.



Typical Physical Properties

Test	Typical Values	AS 3972 Requirement
Fineness Index (cm²/g)		
	9,900	-
Setting Time (hr:min) AS 2350.4		
Initial	3:50	Min 0:45
Final	5:55	Max 10:00
Soundness (mm) AS 2350.5		
	< 3	Max 5
Peak Temperature Rise (°C) AS 2350.7		
	19 – 23	Max 23
Compressive Strength ISO-CEN mortar bars (MPa) AS 2350.11		
3 Day	38.8	-
7 Day	67.7	Min 20
28 Day	75.0	Min 35
Mortar Expansion due to Sulfate Exposure (microstrain) AS 2350.14		
16 weeks	100 - 450	Max 750*

Typical Chemical Properties

Test	Units	Max AS 3972	Typical Values
Sulphur Trioxide	%	3.5	2.77
Loss on Ignition	%	-	0.9
Chloride	%	0.1	0.01
Equivalent Alkalis	%	-	0.50
Hexavalent Chromium	mg/kg	-	Trace
Crystalline Silica	%	-	Trace
Components			
Portland Clinker	%	-	25 – 50
Gypsum	%	-	50 – 75
Mineral Addition	%	-	2 – 5

Handling and Storage

EcoFine[®] has a shelf life of 6 months if kept in a dry store in sealed bags. Store the product on pallets (or similar) in a dry warehouse. Do not place directly on floor. Transportation may be in bulk road or rail tankers or in paper bags.

If stored in high temperature and high humidity locations, the shelf life may be reduced. Do not use EcoFine[®] from a broken bag.

Supply

EcoFine[®] is available in bulk, bulk bags and 20 kg multi-walled paper bags. Paper bags are palletised and stretch wrapped.



Contact

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