

**EcoFine® 1500 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.

- Fixation and water sealing in fractured zone during tunnel construction
- Curtain grouting for dams and embankments
- Ensuring leak-tightness of retention dykes around oil tanks
- Stabilisation and sealing of work faces in shield tunnelling and pipe insertion work
- Water sealing of tunnel walls, dam bases and reservoir bases

**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® 1500 at d50 is 5.72 microns with a d95 value of 12.38 microns. The specific Surface Blaine fineness of 15,400 cm<sup>2</sup>/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
<b>Fineness Index (cm<sup>2</sup>/g)</b>		
	15,400	-
<b>Setting Time (hr:min) AS 2350.4</b>		
Initial	3:50	Min 0:45
Final	5:50	Max 10:00
<b>Soundness (mm) AS 2350.5</b>		
	< 3	Max 5
<b>Peak Temperature Rise (°C) AS 2350.7</b>		
	19 – 23	Max 23
<b>Compressive Strength ISO-CEN mortar bars (MPa) AS 2350.11</b>		
3 Day	42.5	-
7 Day	68.8	Min 20
28 Day	83.9	Min 35
<b>Mortar Expansion due to Sulfate Exposure (microstrain) AS 2350.14</b>		
16 weeks	100 - 450	Max 750*

**Typical Chemical Properties**

Test	Units	Max AS 3972	Typical Values
Sulphur Trioxide	%	3.5	2.0
Loss on Ignition	%	-	0.9
Chloride	%	0.1	0.01
Equivalent Alkalis	%	-	0.50
Hexavalent Chromium	mg/kg	-	Trace
Crystalline Silica	%	-	Trace
<b>Components</b>			
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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