Expanded Glass Granules

Expanded Glass Technologies

Ecolite™

Ecolite expanded glass granules, are lightweight aggregates and fillers suitable for use in a wide range of applications.

Using patented technology, recycled glass is crushed, granulated, melted and foamed to produce granules with a closed shell and a porous internal structure. Ecolite is continuously produced with minimal variation of it's characteristic properties, thereby ensuring consistent performance across a wide range of applications.

Unlike sand, Ecolite granules do not contain crystalline silica, so are ideal in applications that involve cutting or sanding. Ecolite is manufactured using sustainably sourced post consumer glass which helps conserve our natural resources and reduce landfill waste.

APPLICATIONS

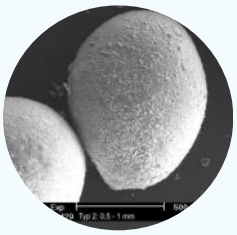
- Renders
- Tile Adhesives
- Screeds
- Mortars
- Lightweight Fill
- Composites
- Lightweight Concrete
- Lightweight Panels
- Non Combustible Panels
- Acoustic Panels
- Masonry Blocks
- Refractories

FEATURES

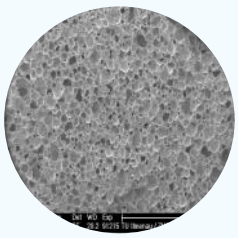
- Lightweight (BD: 170 - 450 kg/m^3)
- Non combustible
- Low thermal conductivity (<0.07 w/mk)
- High sound absorption (NRC ≤ 0.95)
- High strength/density ratio
- Free of crystalline silica
- High recycled content (> 95%)
- Fiber free
- Non-toxic
- No VOC (Volatile Organic Compounds)
- Six sizes from 0.1mm to 8mm enables customised gradations

Granule Properties

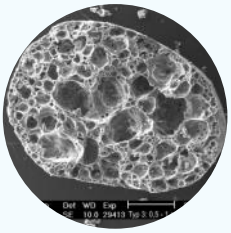
An electron microscope highlights Ecolite's smooth closed outer shell and the uniform composition of the internal structure. These characteristics result in superior strength/density ratios, reduced water absorption and improved mix workability.



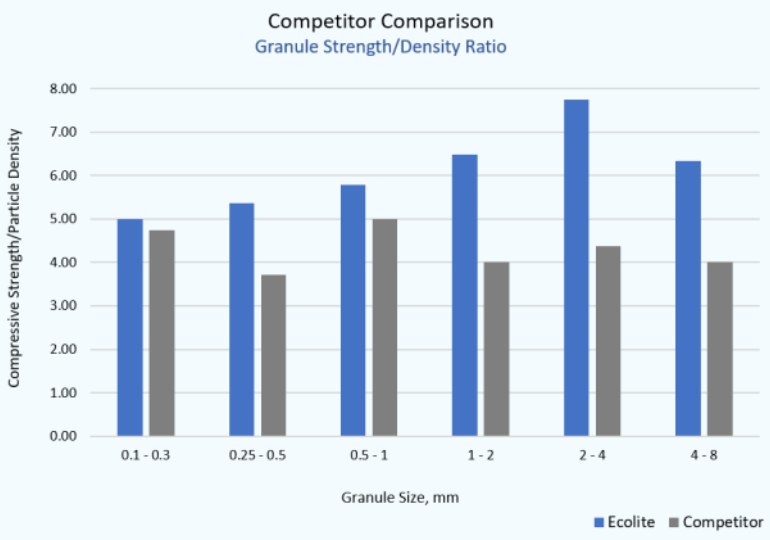
Ecolite Outer Shell



Ecolite Granule Cutaway



Competitor Granule Cutaway



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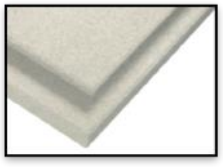
MATERIAL PROPERTIES

Physical Properties			Ecolite 100/300	Ecolite 250/500	Ecolite 500/1000	Ecolite 1000/2000	Ecolite 2000/4000	Ecolite 4000/8000
Grain size	(mm)	EN 933-1	0.1 - 0.3	0.25 - 0.5	0.5 - 1	1 - 2	2 - 4	4 - 8
Loose bulk density	(kg/m³)±15%	EN 1097-3	400	300	250	220	190	170
Particle density	(kg/m³)±15%	DIN V 18004	700	540	450	370	310	300
Compressive strength	(MPa)	EN 13055-1	>3.5	>2.9	>2.6	>2.4	>2.4	>1.9
Chemical properties								
Chloride	(wt %)	DIN EN 1744-1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acid-soluble sulfate	(wt %)		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Total sulfur	(wt %)		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Other properties								
Thermal conductivity	(W/(mK))	DIN 52612-1	-	-	-	-	0.07	0.07
Water vapour diffusion resistance, μ		DIN 52615	-	-	-	-	5	5
1h water absorption	(wt %)		1.06	0.88	1.59	1.71	0.55	1.3
24h water absorption	(wt %)		2.81	3.9	8.5	7.63	7.8	9.11
Fire classification		DIN 4102-4	A1					
VOC-class		DIN EN 717-1	A+					
Colour			Light Grey					
Softening Point			approx. 700 °C					
Material definition		EN 13055-1	Lightweight aggregate					

PRODUCT SELECTION TABLE

Application	Ecolite	Ecolite	Ecolite	Ecolite	Ecolite	Ecolite
Render	●	●	●			
Tile Adhesive	●	●				
Floor Screed			●	●	●	
Self Leveling Underlayment's	●	●				
Lightweight Concrete			●	●	●	●
Masonry Blocks			●	●	●	
Mortars			●	●	●	
Concrete Repair	●	●	●			
Panels/Boards		●	●	●	●	●
Resins		●	●	●	●	



PACKAGING

Ecolite is available in 1.5m³ and 2m³ big bags and 60L PE bags. *[Ecolite 100/300 and 4000/8000 not available in 60L bags.]*

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