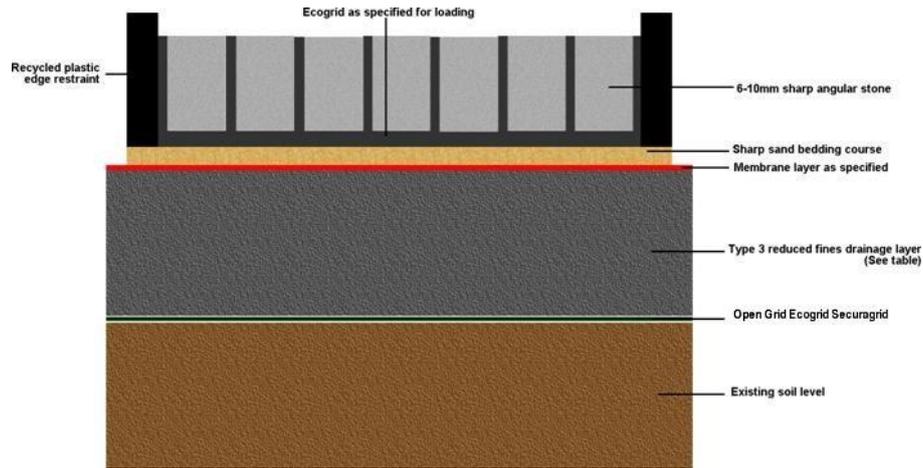




Specification and design for Ecogrid gravel fill



Installation guidelines and explanations

Sharp angular stone	Ideally 6-10mm quarried stone as the smaller stone will sit better in the grid, fill to the top and compact thoroughly with a standard plate vibrator or roller, top up as required
Sharp sand	Can be fine grit or 3-6mm fine gravel, designed to bed the Ecogrid in and provide a cushioning layer. This should be raked level over the geotextile and compacted level.
Membrane	This must have a minimum weight of 115g. Typar SF24 or NW8 with a cone drop efficiency of 45
Type 3	Drainage layer. This must have reduced fines 20mm stone down. Clean 15-20mm limestone can be used for this course if sourcing of Type 3 is difficult.
Open grid	This is an optional base support layer in situations where the soil level is very soft or a CBR of less than 3-4

Typical sub-base (Drainage layer requirements) Type 3

Application load	CBR % strength of subgrade soil	DoT Sub-Base thickness (MM)
Fire trucks, coaches and occasional HGV access	>6	100
	=4<6	120
	=2<4	190
	=1<2	380
Light vehicle access and overspill car parking	>6	100
	=4<6	100
	=2<4	135
	=1<2	260

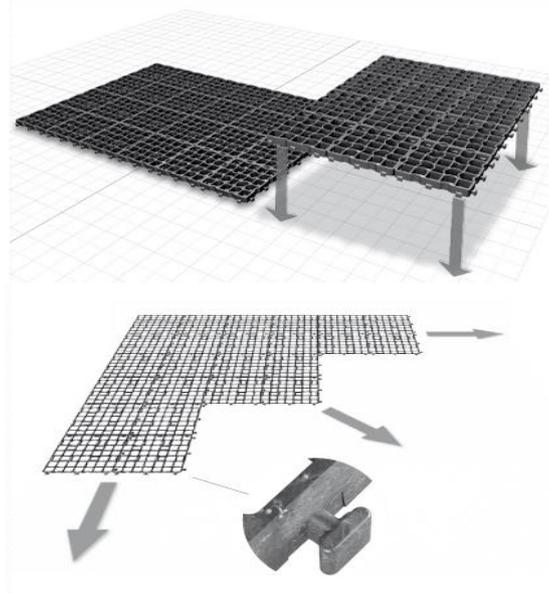


Field guidance for estimating sub-grade strengths					
Consistency	Indicator			Strength	
	Tactile (Feel)	Visual (Observation)	Mechanical (Test)	CBR	CU
			SPT	%	Kn/sqm
Very soft	Hand sample squeezes through fingers	Man standing will sink >75mm	<2	<1	<25
Soft	Easily moulded by finger pressure	Man walking sinks 50-70mm	2-4	Around 1	Around 25
Medium	Moulded by moderate finger pressure	Man walking sinks 25mm	4-8	1-2	25-40
Firm	Moulded by strong finger pressure	Utility truck ruts 10-25mm	8-15	2-4	40-75
Stiff	Cannot be moulded but can be indented by thumb	Loaded construction vehicle ruts by 25mm	15-30	4-6	75-150

This table is to be used only as a guide. No responsibility is accepted by Ecogrid Ltd for any loss or damage.

Tips for installers
Overlay a complete line of tiles to the finished surface on the top and cut to this edge, remove the cuts from under and lay the full edge
A Petrol driven power saw or electric angle grinder with diamond tipped or carborundum blades cut the grids the best. Always wear suitable eye and hand protection
Never fill the grids as you go as this may result in movement of your laying lines and difficulty later
In hot weather fill the complete section swiftly. Overlay with stone
Leave a gap of 5mm between Ecogrid surfaces and any walls or hard edges to allow for expansion
Tips for dismantling sections of Ecogrid
The pre-connected sheets can be taken apart if necessary. Lay the sheet you wish to take apart on another sheet and using your foot, press the tiles you want to remove down and out of the safety locking system
Place a bar or broom handle under the row that is to remain in and press down on the edge to be removed. This usually works also

N.B When installing the lugs of the first row must point in the direction you are working in. The subsequent rows are then pressed into the lugs of the laid surface



K (cm/s)	10 ²	10 ¹	10 ⁰ =1	10 ⁻¹	10 ⁻²	10 ⁻³	10 ⁻⁴	10 ⁻⁵	10 ⁻⁶	10 ⁻⁷	10 ⁻⁸	10 ⁻⁹	10 ⁻¹⁰	
K (ft/day)	10 ⁵	10,000	1,000	100	10	1	0.1	0.01	0.001	0.0001	10 ⁻⁵	10 ⁻⁶	10 ⁻⁷	
Relative Permeability	Pervious			Semi-Pervious				Impervious						
Aquifer	Good			Poor				None						
Un consolidated Sand & Gravel	Well Sorted Gravel	Well Sorted Sand or Sand & Gravel			Very Fine Sand, Silt, Loess, Loam									
Unconsolidated Clay & Organic					Peat	Layered Clay		Fat / Weathered Clay						
Consolidated Rocks	Highly Fractured Rocks			Oil Reservoir Rocks		Fresh Sandstone		Fresh Limestone, Dolomite		Fresh Granite				

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