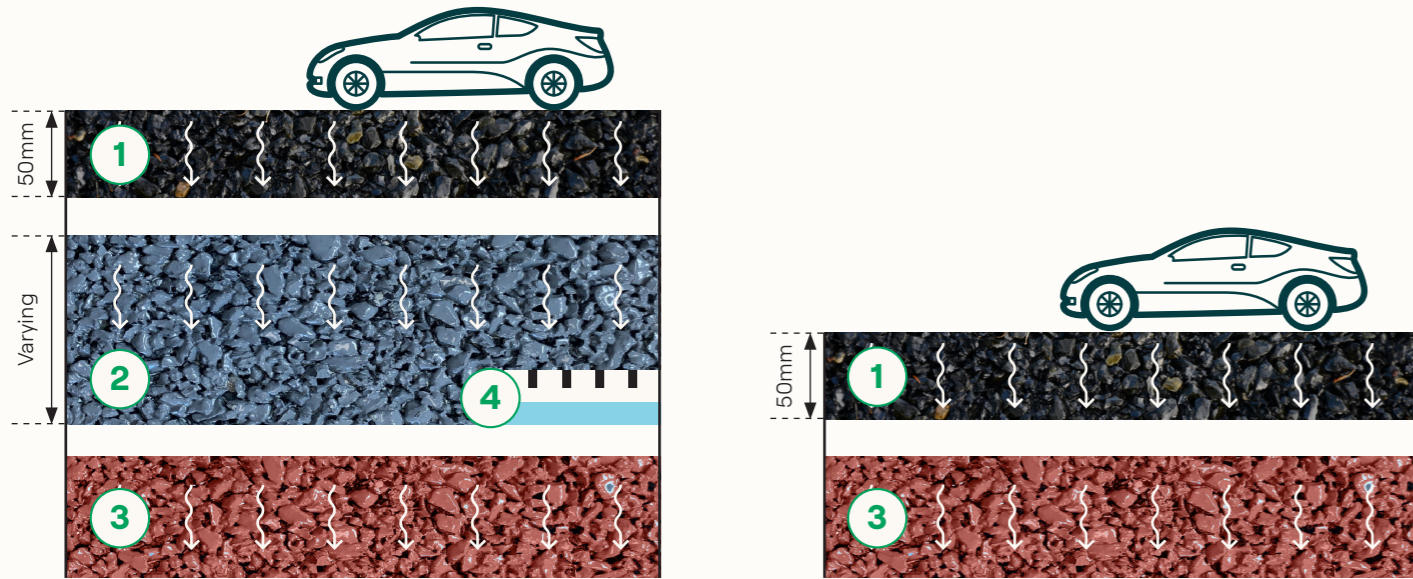


Cross Section



1 Waste tyre permeable pavement

- Made of up to 60% recycled material (approx 3 waste tyres per sqm)
- Laid on-site

2 Screening structural soil layer (optional)

- Acting as a reservoir layer
- Thickness based on the amount of storage and subgrade
- Can be reinforced by geocells

3 Subgrade natural soil

- Determines the thickness of screening, etc.

4 Drainage pipe

- Depending on application, a drainage pipe can be used

Technical Details

Material top layer properties

Mean particle size (mm)	3.4	(ASTM D6913-17)
Tyre content (%)	30-60	depending on the application
Permeability (cm/s)	3.0-3.5	8 times higher than ASCE recommendations (ASTM D3385-18)
Unconfined Compressive Strength (MPa)	1.0-2.0	depending on the mixture (AS 5101.4-08)
Elasticity Modulus (MPa)	15-150	depending on the mixture (AS 5101.4-08)
Porosity (%)	40-50	depending on the mixture
Skid resistance	56	measured in wet condition, above recommendations (AS 4663-13)
Dynamic Modulus E _{vd} , from LWD test (MPa)	16-45	depending on the mixture and pavement design (ASTM E2835-11)

Tests carried out and certified at the University of Melbourne

Design Specifications

Layer	Property	Value	Notes
Top Layer	Thickness (mm)	40-50	depending on the application
	Mean particle size (mm)	Varies	Black - Grey - Black & White
	Weight per area (kg/m ²)	Around 50	depending on the mixture
Screening or Base Layer (optional)	Soil type	Crushed rock, gravel or structural soil	uniformly graded (ASTM D2487-17)
	Thickness (mm)	0-300	depending on design rainfall, catchment area and project design objectives
	Mean particle size (mm)	8-10	(ASTM D6913-17)
	Required permeability (cm/s)	> 3.5	higher than the top layer (ASTM D3385-18)
	California Bearing Ratio, CBR	> 10	should be well-compacted (ASTM D4429-09)
Subgrade Layer	Soil type	depends on the soil on-site	our design can cater for any soil type from sandy to clayey soil
	Permeability (cm/s)	depends on the soil on-site	our design can cater for any soil type from sandy to clayey soil
	California Bearing Ratio, CBR	> 3	if lower than 3, designed system will include reinforcements (ASTM D4429-09)