Modular Drainage System
Technical Specification

Rosehill Highways

MADE IN THE UK FROM RECYCLED TYRE RUBBER

Property	Standard/Reference	Results	
Density		**750kg /m3**	
Porosity / Void Ratio	ASTM C642	**Avg. 45%**	
Long Term Load Fatigue Testing	Independent UKAS Lab	**Specimen: Diameter 114.32 mm | Height 100 mm | Area m2 0.0102** **506,010 cycles -0.2 kN to -2 kN** **Deformation no greater than 5%**	
Compression	BS EN 604 Data Analysis Independent UKAS Certified Test Report	**Specimen Height: 100mm** **At Avg. Compressive Stress 0.1 MPa, Strain = 3.3%**	
Predicted Design Life	Design Life Analysis	**60+ Years: In Standard Conditions for Drainage Parts.** Sufficiently durable in standard conditions and backfill when designed and installed as drainage parts. **60 Years: In Active Loading.** Under active loading of 50 to 95 kPa, based on exerted forces within the active loading zone and or Cess / 10ft / 6ft / 4ft drainage.	
Resistance to Temperature, Water	ASTM D4065	**Pass**	
Carbon Reporting	Life Cycle Assessment	**Minimum of 90% waste materials in production of the overall composite**	
Resistance to Chemicals (Petrol, Diesel, De-icer, Salt)	DEF STAN 00-035 Part 3	**No visual surface change or deterioration was observed**	
Toxicology and Environmental	NF P 90-112:2016	**Heavy Metals Pass.** **PAH: Pass.** **Environmental Safety Confirmed.**	
Water Permeability	BS EN ISO 11058 Data Analysis Independent UKAS Certified Test Report	Constant Head Specimen Area Litres/metre-sq/sec Flow Rate Qy Vertical Hydraulic Conductivity (Ky)	**50 mm** **0.0039 m²** **49 l/m2/s** **0.049 m/s** **176.40 m/hr**
In Plane Water Flow Soft/Soft Platens	BS EN ISO 12958 Data Analysis Independent UKAS Certified Test Report	Hydraulic Gradient Flow Rate Qx Horizontal Hydraulic Conductivity (Kx) Drainage Stacker (235 mm width x 220 mm height) Drainage Stacker (235 mm width x 100 mm height) Drainage Mat / Slab (1m2 x 75 mm thickness) Drainage Mat / Slab (1m2 x 100 mm thickness) Hydraulic Gradient Flow Rate Qx Horizontal Hydraulic Conductivity (Kx) Drainage Stacker (235 mm width x 220 mm height) Drainage Stacker (235 mm width x 100 mm height) Drainage Mat / Slab (1m2 x 75 mm thickness) Drainage Mat / Slab (1m2 x 100 mm thickness)	**0.1 (1 in 10 slope)** **0.52 l/s/m** **0.104 m/s** **5.37 l/s** **2.44 l/s** **7.80 l/s** **10.40 l/s** **0.01 (1 in 100 slope)** **0.063 l/s/m** **0.126 m/s** **6.51 l/s** **2.96 l/s** **9.45 l/s** **12.6 l/s**

- **Recycled Material Composition:** Recycled rubber tyres, supporting environmental sustainability.
- **High Performance Modular Units:** Engineered to optimise hydraulic performance and drainage efficacy.
- **Modular Design:** Delivers improved safety by design and drainage asset construction efficiencies.
- **Durability:** Rubber material ensures long-term durability and resilience.
- **Chemical Resistance:** Offers resistance to common chemicals such as petrol, diesel, de-icer, and salt.
- **Environmental Compliance:** Free from harmful PAHs, complying with environmental safety standards.
- **Temperature Resistance:** Maintains performance in both hot and cold environments.
- **Flexibility:** Accommodates minor ground movements, reducing the risk of system failure.
- **Load-Bearing Capacity:** Designed to handle standard loading conditions in drainage applications.
- **UV Resistant:** Treated to resist UV degradation, prolonging the system's lifespan.

Get in touch:
+44 (0)1422 839456
info@rosehillhighways.com
rosehillhighways.com
Rosehill Polymers, Spring Bank Mills, Watson Mill Lane, Sowerby Bridge, West Yorkshire, HX6 3BW, UK