

Penteco BGM ES4

- ❖ **Containment**
- ❖ **Erosion Control**
- ❖ **Leak Detection**
- ❖ **Water Proofing**
- ❖ **Protection**

Penteco's ES4 is an elastomeric modified bituminous geomembrane. It is manufactured by impregnating a polyester geotextile fiberglass layer with an elastomeric compound. The geotextile provides the mechanical resistance and a high puncture resistance. The elastomeric bitumen provides the waterproofing properties of the geomembrane and ensures its longevity.

The installation of this geomembrane can be allowed in low temperatures down to -40°C, ideal for Canadian winters. The high friction angle of bitumen of 34 degrees for example provides a strong adherence in steep slopes, allowing a high volume of material placement directly on the geomembrane.

BGM – ES4				
Property		Test Method	Imperial	Metric
Thickness	Average	ASTM D-5199	220.5 mil	5.60 mm
	Minimum		189.0 mil	4.80 mm
Surface Mass	Average	ASTM D-5261	188.8 oz/yd ²	6.40 kg/m ²
	Minimum		174.0 oz/yd ²	5.90 kg/m ²
Tear Resistance (average)	Longitudinal Direction	ASTM D-4073	275 lbf	1225 N
	Cross Direction		230 lbf	1025 N
Strength (average)	Longitudinal Direction	ASTM D-7275	200 lbf/in	35 KN/m
	Cross Direction		171 lbf/in	30 KN/m
Elongation (average)	Longitudinal Direction	ASTM D-7275	60%	60%
	Cross Direction		60%	60%
Flexibility at Low Temperature (average)	Longitudinal Direction	ASTM D-5147	-4°F	-20°C
	Cross Direction		-4°F	-20°C
Puncture Resistance	Average	ASTM D-4833	146 lbf	650 N
Water Permeability	Average	ASTM E-96	6 x 10 ⁻¹⁴ m/s	
Gas Permeability	Average	ASTM D-1434-82	2 x 10 ⁻⁴ m ³ /(m ² .d.atm)	
Dimensions				
Typical Roll Size		Measured	16.7 ft x 180 ft	5.10 m x 55 m
Area		Calculated	3006 ft ²	280.5 m ²

Notes:

- (1) Roll Widths/ Lengths vary based on manufacturer.
- (2) All roll widths/lengths have a tolerance of ±1 %.
- (3) Custom roll lengths can be ordered. Transportation cost might be affected.
- (4) Penteco is a distributor for this product.
- (5) Manufacturer's data sheet provided at time of purchase.

DISCLAIMER: The data above represents the manufacturer's laboratory testing of their product. It is the user's responsibility to determine the suitability of the products. Penteco is a distributor for these products through its manufacturing partners. Penteco will provide the manufacturers data sheet at the time of sale. Penteco and manufacturing partners assume no liability, nor can they provide any warranty, without having additional information regarding the use of the products. The same goes for any infringement on patents - no permission can be granted without further disclosure.

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