

# Technical Data Sheet

## COLETANCHE ES 1 Geomembranes

<b>1. Description</b>	Coletanche ES1 is an elastomeric modified bituminous geomembrane.
<b>2. Use</b>	<p>Low level of mechanical constraints, exposed or covered limiting risks of puncture and tensile stresses. For example:</p> <ul style="list-style-type: none"> <li>• Landfill and waste capping.</li> <li>• Shallow hydraulic ponds.</li> <li>• Ditches.</li> </ul> <p>Product use must be validated by Axter Ltd.</p>
<b>3. Application Method</b>	By torch welding or similar technique.
<b>4. Storage</b>	Rolls must not be stored directly on the ground. Provide suitable supports (blocks, slides, wooden planks) with a minimum height of 35cm, to be placed under the ends of the mandrel.
<b>5. Composition</b>	(Indicative).

<b>Reinforcement (g/m<sup>2</sup>)</b>	Glass-fibre	50
<b>Reinforcement (g/m<sup>2</sup>)</b>	Non-woven geotextile	200
<b>Binder (g/m<sup>2</sup>)</b>	Elastomeric SBS	3800
<b>Surface finish(g/m<sup>2</sup>)</b>	Sand	250
<b>Under surface finish</b>	Silicone coated film	15

Characteristics		Standards (BS)	Units	Values	Min Tolerance
Dimensions	Length	EN 1848-1	m	100	99
	Width		m	5.10	5.01
Thickness (on finished product)		EN 1849-1	mm	3.5	3.1
Surface mass		EN 1849-1	kg/m <sup>2</sup>	4.20	3.70
Tensile properties: maximum strength	Longitudinal	EN 12311-1	N/50mm	800	550
	Cross direction			600	400
Tensile properties: elongation	Longitudinal		%	45	30
	Cross direction			45	30
Flexibility at low temperature		EN 1109	°C	-20	-16
Static Puncture	Resistance	EN ISO 12236	kN	2.7	2.4
	Displacement		mm	50	40
Water permeability		EN 14150	m <sup>3</sup> /m <sup>2</sup> /d	1.10 <sup>-6</sup>	<
Gas permeability		ASTM D 1434-82	m <sup>3</sup> / (m <sup>2</sup> .d.atm)	2.10 <sup>-4</sup>	<
<b>Durability</b>					
Oxidation	Tensile strength according to EN 12311-1 retained tensile strength according to EN 12226	EN 14575	%	100	75
				Maximum elongation	100
Weathering		EN 12224	%	100	75
				Maximum elongation	100

The manufacturer reserves the right to modify, at any time, the characteristics of these products.

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