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**PRODUCT  
DATA SHEET**

EN 13361  
EN 13362  
EN 13491  
EN 13492  
EN 13493

0334-CPD-0011  
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Prepared:  
▶ 21/03/2011  
Cancels and replaces  
▶ 03/01/2011

Code :  
▶ **1878001**

Manufacture source  
▶ Courchelettes (Fr-59)

n° of certification organisation: 0334  
Year mark was 1st fixed : 2007

Technical ref:  
▶ FT AXTER

**COLETANCHE ES 4**

**DESCRIPTION**

→ COLETANCHE ES 4 is an SBS elastomeric modified bituminous geomembrane whith Ring and Ball melting point of 115°C (EN 1427)

**USE**

→ Extreme level of mechanical resistance, for use as environmental protection and droungworks waterproofing (aggressive materials, reinforced precautions), in particular :  
- Railways, directly under ballast,  
- Dams,  
- Confinement of radioactive waste.

Product use must be validated by Axter.

**APPLICATION METHOD**

→ Torched

**STORAGE**

→ Rolls must not be stored directly on the ground. They must be supported on concrete blocks, trestles, or timber beams, min 35 cm height, placed under the mandrel ends.

**COMPOSITION** (indicative)

Reinforcement (gm/m <sup>2</sup> ) :	Glass mat	50
Reinforcement (gm/m <sup>2</sup> ) :	Non-woven geotextile	400
Binder (gm/m <sup>2</sup> ) :	Elastomeric SBS	5400
Surface finish (gm/m <sup>2</sup> ) :	Sand	200
Under surface finish (gm/m <sup>2</sup> ) :	Polyester antirroot film	15

**CHARACTERISTICS**

	STANDARD	UNITS	VALUES	Tolerance	
				Min	Max
Dimensions	EN 1848-1	Length	54.00	≥	
		Width	5.01	≥	
Thickness (on finished product)	EN 1849-1	mm	5.60	5.10	
Surface mass	EN 1849-1	kg/m <sup>2</sup>	6.40	5.90	
Resistance to tearing (nail shank)	EN 12310-1	Longitudinal	550	450	
		Cross direction	600	500	
Tensile properties : maximum tensile strength	EN 12311-1	Longitudinal	1600	1150	
		Cross direction	1400	1000	
Tensile properties : elongation	EN 12311-1	Longitudinal	55	40	
		Cross direction	55	40	
Flexibility at low temperature	EN 1109	Surface	-20	≤	
		Under surface	-20	≤	
Static Puncture	EN ISO 12236	Resistance	4	3.5	
		Move	50	40	
Water permeability (liquid tightness)	EN 14150	l/j/m <sup>2</sup>	<0.1		
Gas permeability (gas tightness)	ASTM D 1434	cm <sup>3</sup> /(m <sup>2</sup> .24h/atm)	<137		
Dangerous substances consult : <a href="http://europa.eu.int/comm/enterprise/construction/internal/dangsub/dangmain.htm">http://europa.eu.int/comm/enterprise/construction/internal/dangsub/dangmain.htm</a>			-	None	
<b>Durability</b>					
Oxidation	Tensile strength according to EN 12311-1	Maximum tensile strength	100	75	
		Elongation	100	75	
Weathering	retained tensile strength according to EN 12226	Maximum tensile strength	100	75	
		Elongation	100	75	
Root penetration	EN 14416	-	Pass		

NA=not applicable due to use of product.  
NPD : No performance determined

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