

Technical Data Sheet

HYRANGER TS

Description	HYRANGER TS is a glass-fibre reinforced SBS elastomeric modified bitumen waterproofing membrane. Minimum side lap width is 6 cm shown by a white line. A second white line 16 cm from the edge allows the material to be identified after installation.
Use	A base or underlayer used as part of a multi-layer waterproofing system. Can also be used as an air and water vapour control layer (AVCL) low permeability membrane to control the movement of air, water vapour and heat leakage from within the building. The choice of AVCL will depend on the degree of air and vapour pressure produced, the specified roof deck/slab and the need for a robust temporary waterproofing layer. Suitable for use in bitumen and single ply warm roof waterproofing systems.
Application method	Installed fully bonded, with fully sealed joints, using torch-on techniques, to form a continuous layer.
Storage	Rolls to be stored upright and away from heat.
Composition	(indicative)

Reinforcement (g/m ²) :	Glass fibre	50
Binder (g/m ²) :	SBS elastomer	3,200
Surface finish (g/m ²) :	Macroperforated film + sand	100
Under surface finish (g/m ²) :	Thermofusible film	10

Characteristics		Standard	Units	Value	Tolerance		
					Min	Max	
Dimensions	Length	EN 1848-1	m	7 or 10	-1%		
	Width		m	1	-1%		
	Straightness		-	Pass			
	Nominal roll weight		kg	25.3 (7m) 36 (10m)			
	Thickness (on finished product)	EN 1849-1	mm	2.65	2.50	2.80	
Visible defects	New product	EN 1850-1	-	None			
	After ageing to EN 1297		-	NA			
Adhesion of granules		EN 12039	%	NA	-	-	
Resistance to tearing (nail shank)	Longitudinal	EN 12310-1	N	80	50	150	
	Cross direction			80	50	150	
Tensile properties: maximum tensile force	Longitudinal	EN 12311-1	N/50 mm	250	200	550	
	Cross direction			150	120	350	
Tensile properties: elongation	Longitudinal	EN 12311-1	%	3	2	4	
	Cross direction			3	2	4	
Peel resistance of joint	Maximum force	EN 12316-1	N/50mm	Selvedge	NA	-	-
				End joint	NA	-	-
	Average force			Selvedge	NA	-	-
				End joint	NA	-	-
Shear resistance of joint	Maximum force	EN 12317-1	N/50mm	Selvedge	NA	-	-
				End joint	NA	-	-
Flexibility at low temperature	Surface	EN 1109	°C	-16	≤		
	Under surface			-16	≤		

Characteristics		Standard	Units	Value	Tolerance	
					Min	Max
Flow resistance at elevated temperature	New product	EN 1110	°C	100	≥	
	After ageing to EN 1296			NA	-	-
Resistance to impact		EN 12691	mm	500	≤	
Resistance to static loading		EN 12730 (A)	kg	PND	≥	
Dimensional stability		EN 1107-1	%	0.1	≤	
Form stability under cyclic temperature change		EN 1108	%	NA		
Water vapour transmission properties	New product	EN 1931	m	280	≥	
	After ageing to EN 1296		m	280	≥	
Watertightness	New product	EN 1928	-	Pass	at 10 kPa	
	After ageing to EN 1296		-	NA		
Watertightness after stretching at low temperature		EN 13897	%	NA		
Reaction to fire		EN 13501-1	-	PND		
Resistance to root penetration		EN 13948	-	NA		
Dangerous substances consult: http://europa.eu.int/comm/enterprise/construction/internal/dangsub/dangmain.htm		-	-	None		

NA=not applicable due to use of product. PND=performance not determined.

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