

Technical Data Sheet

HYRANGER TS PY

Description	HYRANGER TS PY is a stabilised polyester reinforced SBS elastomeric modified bituminous waterproofing membrane. Minimum side lap width is 6cm shown by a red line. A second red line 16cm from the edge allows the material to be identified after installation.
Use	Base or intermediate layer of the HYRANGER TS multi-layer waterproofing system for flat roofs. It can also be used as the top layer under site applied added protection.
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/m²) :	Stabilised polyester	180
Binder (g/m²) :	SBS elastomer	2,700
Surface finish (g/m²) :	Macroperforated film+sand	100
Under surface finish (g/m²) :	Thermofusible film	10

Characteristics		Standards (BS)	Units	Value	Tolerance		
					Min	Max	
Dimensions	Length	EN 1848-1	m	7	-1%		
	Width		m	1	-1%		
	Straightness		-	Pass			
	Nominal roll weight		kg	22.7			
	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	NA	-	-	
	Cross direction			NA	-	-	
Tensile properties: maximum tensile force	Longitudinal	EN 12311-1	N/50 mm	700	500	900	
	Cross direction			550	440	750	
Tensile properties: elongation	Longitudinal	EN 12311-1	%	35	25	60	
	Cross direction			35	25	60	
Peel resistance of joint	Maximum force	EN 12316-1	N/50mm	Selvage	NA	-	-
				End joint	NA	-	-
	Average force			Selvage	NA	-	-
				End joint	NA	-	-
Shear resistance of joint	Maximum force	EN 12317-1	N/50mm	Selvage	NA	-	-
				End joint	NA	-	-
Flexibility at low temperature	Surface	EN 1109	°C	-16	≤		
	Under surface			-16	≤		
Flow resistance at elevated temperature	New product	EN 1110	°C	100	≥		
	After ageing to EN 1296			NA	-	-	
Resistance to impact		EN 12691	mm	1000	≤		
Resistance to static loading		EN 12730 (A)	kg	20	≥		
Dimensional stability		EN 1107-1	%	0.5	≤		
Form stability under cyclic temperature change		EN 1108	%	NA			

Characteristics		Standards (BS)	Units	Value	Tolerance	
					Min	Max
Water vapour transmission properties	New product	EN 1931	-	μ=20000		
	After ageing to EN 1296		-	NA		
Watertightness	New product	EN 1928	-	Pass	<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 this product.