

# PRODUCT DATA SHEET

n° of certification organisation: 0679  
Year mark was 1<sup>st</sup> fixed : 2006

## FORCE LINE 3VV

### DESCRIPTION

FORCE LINE 3VV is a glass-fibre reinforced elastomeric modified bituminous membrane.

### USE

Base, intermediate or top layer in a multi-layer flat roof waterproofing system.

### APPLICATION METHOD

Torched.

### STORAGE

Rolls to be stored upright and away from heat.

### COMPOSITION (indicative)

Reinforcement (gm/m <sup>2</sup> ) :	Glass-fibre	50
Binder (gm/m <sup>2</sup> ) :	SBS elastomer	3,440
Surface finish (gm/m <sup>2</sup> ) :	Sand	300
Under surface finish (gm/m <sup>2</sup> ) :	Thermofusible film	10

### CHARACTERISTICS

CHARACTERISTICS	STANDARD(BS)	UNITS	VALUES	Tolerance		
				Min	Max	
Dimensions	EN 1848-1	Length	10	-1%		
		Width	1	-1%		
		Straightness	Pass			
		Nominal roll weight	38.2			
	EN 1849-1	Thickness (on finished product)	3.00	2.85	3.20	
Visible defects	EN 1850-1	New product	None			
		After ageing to EN 1297	NA			
Adhesion of granules	EN 12039	%	NA	-	-	
Resistance to tearing (nail shank)	EN 12310-1	Longitudinal	NA	-	-	
		Cross direction	NA	-	-	
Tensile properties : maximum tensile force	EN 12311-1	Longitudinal	450	200	700	
		Cross direction	250	120	380	
Tensile properties : elongation	EN 12311-1	Longitudinal	3	2	4	
		Cross direction	3	2	4	
Peel resistance of joint	EN 12316-1	Maximum force	Selvedge	NA	-	-
			End joint	NA	-	-
		Average force	Selvedge	NA	-	-
			End joint	NA	-	-
Shear resistance of joint	EN 12317-1	Maximum force	Selvedge	NA	-	-
			End joint	NA	-	-
Flexibility at low temperature	EN 1109	Surface	-16	≤		
		Under surface	-16	≤		
Flow resistance at elevated temperature	EN 1110	°C	100	≥		
Resistance to impact	EN 12691	mm	NA	≤		
Resistance to static loading	EN 12730 (A)	kg	NA	≥		
Dimensional stability	EN 1107-1	%	0.1	≤		
Form stability under cyclic temperature change	EN 1108	%	NA			
Water vapour transmission properties	EN 1931	New product	-	μ=20000		
		After ageing to EN 1296	-	NA		
Watertightness	EN 1928	New product	Pass		<10 kPa	
		After ageing to EN 1296	NA			
Watertightness after stretching at low temperature	EN 13897	%	NA			
Reaction to fire	EN 13501-1	-	F			
Resistance to root penetration	EN 13948	-	NA			
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			

NA=not applicable due to use of product.

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