

# PRODUCT DATA SHEET

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

**Technical ref:**  
▶ AT FORCE

## FORCE 4000 S

### DESCRIPTION

FORCE 4000 S is a stabilised polyester reinforced, SBS elastomeric modified bituminous waterproofing membrane. Its surface is finished with mineral slate chippings or ceramic granules. Minimum selvedge width is 9cm.

### USE

Torch-on single or multi-layer waterproofing cap sheet for inaccessible flat roofs and self-protected flat roofs with plant. Suitable for use on profiled metal decks and decks made from timber and timber derivatives, concrete and cellular concrete and non-torchable insulation boards for new and refurbishment projects.

### APPLICATION METHOD

Torched.

### STORAGE

Rolls to be stored upright and away from heat.

### COMPOSITION

(indicative)

Reinforcement (gm/m <sup>2</sup> ) :	Stabilised polyester	180
Binder (gm/m <sup>2</sup> ) :	SBS elastomer	3,800
Surface finish (gm/m <sup>2</sup> ) :	Mineral slates or granules	1,000 1,200
Under surface finish (gm/m <sup>2</sup> ) :	Thermofusible film	10

### CHARACTERISTICS

	STANDARD(BS)	UNITS	VALUES	Tolerance		
				Min	Max	
Dimensions	EN 1848-1	Length	8		-1%	
		Width	1		-1%	
		Straightness	Pass			
	EN 1849-1	Nominal roll weight	44.1			
		Thickness (selvedge)	3.90	3.80	4.20	
Visible defects	EN 1850-1	New product	None			
		After ageing to EN 1297	NA			
Adhesion of granules	EN 12039	%	15	0	30	
Resistance to tearing (nail shank)	EN 12310-1	Longitudinal	NA	-	-	
		Cross direction	NA	-	-	
Tensile properties : maximum tensile force	EN 12311-1	Longitudinal	600	500	880	
		Cross direction	600	500	750	
Tensile properties : elongation	EN 12311-1	Longitudinal	35	25	55	
		Cross direction	35	25	60	
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	600	500	750
			End joint	600	500	880
Flexibility at low temperature	EN 1109	Surface	-16		≤	
		Under surface	-16		≤	
Flow resistance at elevated temperature	EN 1110	New product	100		≥	
		After ageing to EN 1296	110	100	120	
Resistance to impact	EN 12691	mm	1750		≤	
Resistance to static loading	EN 12730 (A)	kg	20		≥	
Dimensional stability	EN 1107-1	%	0.3		≤	
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 :	-	-	None			

Dangerous substances consult :  
<http://europa.eu.int/comm/enterprise/construction/internal/dangsub/dangmain.htm>  
NA=not applicable due to use of product.

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