

PRODUCT DATA SHEET

FORCE 4000 FMG FE

DESCRIPTION

→ FORCE 4000 FMG FE is a stabilised polyester reinforced SBS (fire treated) elastomeric modified bituminous waterproofing membrane. Its surface is finished in mineral slate chippings or ceramic granules. Minimum selvedge width is 9cm.

USE

→ Single layer cap sheet mechanically fixed along selvedge with torched laps for self-protected, inaccessible roofs. Suitable for use on profiled metal decks or decks made from timber and timber derivatives, cellular concrete or non-torchable insulation boards for new or refurbishment projects. Class T30/1.

APPLICATION METHOD

→ Torched.

STORAGE

→ Rolls to be stored upright and away from heat.

COMPOSITION

(indicative)

Reinforcement (gm/m ²) :	Stabilised polyester	180
Binder (gm/m ²) :	SBS elastomer	4,250
Surface finish (gm/m ²) :	Mineral slates or granules	1,000 1,200
Under surface finish (gm/m ²) :	Sand	300

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	43.7			
		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	200	180	260	
		Cross direction	250	230	300	
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	200	150	280
			End joint			
		Average force	Selvedge	160	110	240
			End joint			
Shear resistance of joint	EN 12317-1	Maximum force	Selvedge	600	500	880
			End joint	600	500	750
Flexibility at low temperature	EN 1109	Surface	°C	-16	≤	
			Under surface	-16	≤	
Flow resistance at elevated temperature	EN 1110	New product	°C	100	≥	
			After ageing to EN 1296	110	100	120
Resistance to impact	EN 12691	mm	20	≤		
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.