Technical Data Sheet

FORCE ALPAL 3000 S

1.	**Description**	Force Alpal 3000 S is a stabilised polyester reinforced polymer modified (ALPA FC) bitumen waterproofing membrane. Its surface is finished with coloured mineral slate chippings. Minimum selvedge width is 8 cm. Force Alpal 3000 S single layer roof overlay system, in relation to its external fire performance is classified BROOF(t4) in accordance with Table 1 of BS EN 13501-5: 2005 + A1: 2009. Force Alpal 3000 S achieves the designation of EXT.F.AA when tested in accordance with BS 476: Part 3: 2004 Incorporating Amendment 1: 2006 and Amendment 2: 2007.
2.	**Use**	Single layer roof overlay system - self protected waterproofing cap sheet on inaccessible roofs.
3.	**Application Method**	Fully or partially bonded, with fully sealed joints, using torch-on technique to form continuous layer.
4.	**Storage**	Rolls to be stored upright and away from heat.
5.	**Composition**	(Indicative).

Reinforcement (g/m²)	Stabilised polyester	180
Binder (g/m²)	Alpa FC	2,800
Surface finish (g/m²)	Slate chippings; Mineral granules	1,000; 1,200
Under surface finish (g/m²)	Thermofusible film	10

Characteristics			**Standards (BS)**	**Units**	**Value**	**Tolerance**	
						Min	**Max**
Dimensions	**Length**		EN 1848-1	m	8	-1%	
	Width			m	1	-1%	
	Straightness			-	Pass		
	Nominal roll weight		EN 1849-1	kg	33	20.5	23.3
	Thickness (on finished product)			mm	3.2	2.70	3.70
Visible defects	**New product**		EN 1850-1	-	None		
	After ageing to EN 1297			-	NA		
Adhesion of granules			EN 12039	%	15	-	-
Resistance to tearing (nail shank)	**Longitudinal**		EN 12310-1	N	200	-	-
	Cross direction				250	-	-
Tensile properties: maximum tensile force	**Longitudinal**		EN 12311-1	N/50mm	600	500	
	Cross direction				600	500	
Tensile properties: elongation	**Longitudinal**		EN 12311-1	%	35	25	60
	Cross direction				35	25	60
Peel resistance of joint	**Maximum force**	**Selvedge**	EN 12316-1	N/50mm	150	-	-
		End joint			150	-	-
	Average force	**Selvedge**			100	-	-
		End joint			100	-	-
Shear resistance of joint	**Maximum force**	**Selvedge**	EN 12317-1	N/50mm	600	-	-
		End joint			600	-	-
Flexibility at low temperature	**Surface**		EN 1109	°C	NA	≤	
	Under surface				-14	≤	
Flow resistance at elevated temperature	**New product**		EN 1110	°C	120	≥	
	After ageing to EN 1296				120	-	-

Resistance to impact		EN 12691	mm	*600	≥
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	**New product**	EN 1931	-	μ=20000	
	After ageing to EN 1296		-	NA	
Watertightness	**New product**	EN 1928	-	Pass	<10kPa
	After ageing to EN 1296		-	NA	
Watertightness after stretching at low temperature		EN 13897	%	NA	
Reaction to fire		EN 13501-1	-	NPD	
Resistance to root penetration		EN 13948	-	NA	

NA=Not applicable due to use of product.

NPD=No performance determined.

The manufacturer reserves the right to modify, at any time, the characteristics of this product.

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