

PRODUCT DATA SHEET

n° of certification organisation: 0679
Year mark was 1st fixed : 2006

FORCE 4000 DALLE

Technical ref:
AT FORCE DALLE

DESCRIPTION

→ FORCE 4000 DALLE is a stabilised polyester reinforced, SBS elastomeric modified bituminous waterproofing membrane. Both surfaces are finished with a film. The surface is marked with a line 10cm from the edge to help with positioning of laps.

USE

→ Top layer in single or multi-layer waterproofing systems for flat roofs: inaccessible with added protection; accessible to foot traffic and protected by paving slabs on supports, brick pavers, etc.

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	4,500
Surface finish (gm/m ²) :	Thermofusible film	10
Under surface finish (gm/m ²) :	Thermofusible film	10

CHARACTERISTICS

	STANDARD(BS)	UNITS	VALUES	Tolerance	
				Min	Max
Dimensions	EN 1848-1	Length	8	-1%	
		Width	1	-1%	
		Straightness	Pass		
		Nominal roll weight	38.2		
	EN 1849-1	Thickness (on finished product)	4.00	3.80	4.20
		New product	-	None	
Visible defects	EN 1850-1	After ageing to EN 1297	-	NA	
		Adhesion of granules	EN 12039	%	NA
Resistance to tearing (nail shank)	EN 12310-1	Longitudinal	240	200	280
		Cross direction	280	210	350
Tensile properties : maximum tensile force	EN 12311-1	Longitudinal	600	500	880
		Cross direction	600	600	650
Tensile properties : elongation	EN 12311-1	Longitudinal	35	25	55
		Cross direction	35	25	60
Peel resistance of joint	EN 12316-1	Maximum force	Selvage	NA	-
			End joint	NA	-
		Average force	Selvage	NA	-
			End joint	NA	-
Shear resistance of joint	EN 12317-1	Maximum force	Selvage	600	600
			End joint	600	500
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	NA		
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		

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.