



<b>PRODUCT TRADE NAME</b>	<b>Dermabit® FF Liber 250 thk. 4 mm</b>			
<b>MISSION</b>	Loose laid under heavy ballasting			
<b>DESCRIPTION OF PRODUCT FAMILY</b>	<i>Dermabit® FF is the single-ply membrane line for flame-free hot air applications, Dermabit® FF Liber is used for loose laying on decks of different kinds and requires standard ballasting on the single-layer.</i>			
<b>FEATURES</b>	<b>COMPOUND</b>	<b>CARRIER TYPE</b>	<b>FINISHING (TOP / BOTTOM)</b>	
	APP	GS POLYESTER	NONWOVEN POLYPROPYLENE / POLYETHYLENE	
<b>SYSTEMS</b>	EN 13707 - Multilayer system with permanent surface protection - toplayer EN 13707 – Single layer system with permanent surface protection			
<b>CHARACTERISTIC</b>	<b>TEST METHOD</b>	<b>UNITS</b>	<b>EXPRESSION OF RESULT</b>	<b>VALUE</b>
Visible difects	EN 1850 -1	Statement	Pass	Pass
Length	EN 1848 -1	m	MLV	10-1%
Width	EN 1848 -1	m	MLV	1-1%
Straightness	EN 1848 -1	Statement	Pass (<20mm/10m)	Pass
Thickness	EN 1849 -1	mm	MDV ± 10%	4
Mass per unit area	EN 1849 -1	Kg/m <sup>2</sup>	MDV ± 10%	4
Watertightness	EN 1928 MET. A	Statement	Pass > 60kPa	Pass
Watertightness after stretching at low temperature	EN 13897	%	MLV	NPD
External fire performance	EN 13501-5	Statement	Pass	F roof
Reaction to fire	EN 13501-1	Statement	Pass	Class F
Tensile properties (maximum tensile force): L Tensile properties (maximum tensile force): T	EN 12311-1	N/50 mm	MDV ± 20%	1200 1050
Tensile properties (elongation): L Tensile properties (elongation): T	EN 12311-1	%	MDV ± 10 abs.	45 50
Resistance to tearing (nail shank): L Resistance to tearing (nail shank): T	EN 12310-1	N	MDV ± 30%	280 280
Resistance to impact	EN 12691/A	mm	MLV	1750
Resistance to static loading	EN 12730-1/B	Kg	MLV	25
Flexibility at low temperature	EN 1109	°C	MLV	- 25
Flow resistance at elevated temperature	EN 1110	°C	MLV	150
Dimensional stability	EN 1107-1	%	MLV	± 0.2 %
Form stability under cyclical temperature change	EN 1108	mm	MLV	NPD
Artificial aging by long term exposure to elevated temperature	EN 1296	Δ °C	MDV	5/10
• Flexibility at low temperature	EN 1109	°C	MLV	- 20
• Flow resistance at elevated temperature	EN 1110	°C	MLV	140



CHARACTERISTIC	TEST METHOD	UNITS	EXPRESSION OF RESULT	VALUE
Artificial aging by combination of UV radiation and water	EN 1297	Statement	Pass	NPD
Adhesion of granules	EN 12039	%	MDV	NPD
Water vapour transmission properties	EN 1931	μ	MDV or 20'000	20'000
Resistance to root penetration	prEN 13948	Statement	Pass	NPD
Peel resistance of joints	EN 12316-1	N/50 mm	MDV	40
Shear resistance of joints	EN 12317-1	N/50 mm	MDV	800/700
Durability-Water vapour resistance after artificial ageing	EN 1296 EN 1928 A (2kPa)	Statement	Pass	NPD
Durability - Water vapour resistance after exposure against chemicals	EN 1847 EN 1928	Statement	Pass	NPD
Chemical resistance	EN 13707 All. C	Information	Tab. C1&C2	Tab. C1&C2

All tolerances as per EN 13707 EN 13969 - Linee guida AISPEC-MBP

MLV: Manufacturing limit value

MDV - Manufactured declared value

NPD : No

Performance Determined. For a correct use of the product refers to the technical documentation of the supplier.

Packaging:

dimension rolls: 1.00 x 10.00 m

rolls per pallet: 20

The product does not contain asbestos, asphalt within the meaning of D.LGS (legislative decree) n° 285/98