

# Product Data Sheet

## Delta MS500 Fire

(DMS850)



Delta MS 500 Fire Retardant is a new 8mm studded Type C, Cavity Drainage Membrane that has been manufactured with DELTASAFE, a new innovative fire-retardant property which enables Delta MS 500 Fire Retardant to achieve a Euroclass rating of **B-S2, d0** in accordance with EN 13501-1:2018.

This Fire-retardant High-Density Polyethylene (HDPE) cavity drainage membrane has an 8mm studded clear profile. Suitable for use on the internal faces of walls and floors as a water management system for the protection of below ground structures against the potentially adverse effects of ground water ingress.

Table 1: 30s Surface Exposure

Temperature: 22.6°C      Relative Humidity: 51.2%      Air Velocity: 0.67 m/s  
 Exposure Condition: Surface      Flame Application Time: 30 s      Operator: C. A. Rock  
 Number of Test Runs: 6      Deviations from Test Standard: None

Run No.	Occurrence of Ignition Y/N	Time of Ignition (s)	Duration of Flaming (s)*	Flame Spread to 150 mm (Y/N)	Time to Reach 150 mm	Maximum Flame Spread	Ignition of Filter Paper
1	Yes	11	19	No	N/A	45	No
2	Yes	12	15	No	N/A	52	No
3	Yes	9	15	No	N/A	65	No
4	Yes	12	16	No	N/A	47	No
5	Yes	11	16	No	N/A	65	No
6	Yes	11	15	No	N/A	64	No

N/A Not Applicable      \*Measured to end of 60 s test duration

Table 2: 30s Edge Exposure

Temperature: 18.0 °C      Relative Humidity: 51.5%      Air Velocity: 0.69 m/s  
 Exposure Condition: Edge      Flame Application Time: 30 s      Operator: C. A. Rock  
 Number of Test Runs: 7      Deviations from Test Standard: None

Run No.	Occurrence of Ignition Y/N	Time of Ignition (s)	Duration of Flaming (s)*	Flame Spread to 150 mm (Y/N)	Time to Reach 150mm	Maximum Flame Spread	Ignition of Filter Paper
1F	Yes	1	10	No	N/A	25	No
2P	Yes	1	11	No	N/A	70	No
3P	Yes	1.25	13.5	No	N/A	65	No
4P	Yes	1	20	No	N/A	70	No
5P	Yes	2	17	No	N/A	70	No
6P	Yes	2	10	No	N/A	70	No
7P	Yes	1	10	No	N/A	70	No

N/A Not Applicable      \*Measured to end of 60 s test duration      F Planar flat edge      P Profiled Edge



### Benefits

- Euroclass rating: **B-S2, d0** in accordance with EN 13501-1:2018
- Tested to internationally accepted standards
- Type C Waterproofing Protection
- Suitable for waterproofing and damp proofing
- Suitable for Flood Resilience
- Resistant to Radon



### Specifications

- Type C Drained Protection in accordance with BS 8102:2009
- NBS J40 (clause 290) flexible sheet tanking/damp proofing



### Associated Products

- Delta Fire Retardant Fleece Tape
- Delta Ultra Fix Plug
- Delta Sealing Rope
- Delta Cornerstrip
- Delta Perimeter Channel
- Delta Pumps
- Delta MS 20

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### TECHNICAL DATA

Material	High Density Polyethylene (HDPE)
Sheet Thickness	0.5mm
Stud Height	8mm
Roll Size	2.4m x 20m
Compressive Strength	>250 kN/M <sup>2</sup>
Drainage Capacity	2.25 L/S M 135 L/MIN M 8 100 L/H M
Air Volume Between Studs	5.3 L/M <sup>2</sup>
Temperature Resistance	-30°C to +80°C
Reaction to Fire	EN 13501-1:2018 <b>Class B-S2, d0</b>
R Value	0.12 M <sup>2</sup> K/W

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Test method & test number	Parameter	No. test runs	Results	Compliance with parameters criterion/ compliance status <b>B-s2, d0</b>
EN 13823 Q101176-1001 Tested: 07/10/2020 24/11/2020 E12946 & E13187	FIGRA 0.2MJ FIGRA 0.4MJ LFS THR 600s	3	Continuous parameter mean (m)  110.69 W/s 110.69 W/s (-) 4.16 MJ	Compliance with parameters criterion/ compliance status <b>B-s2, d0</b>  < 120 W/s Compliant -/- < edge of specimen compliant < 7.5 MJ/Compliant
	SMOGRA TSP 600s		35.12 m2/s2 83.73 m2	< 180 m2/s2/Compliant < 200m2/Compliant
	Flaming droplets/particles < 10s Flaming droplets/particles > 10s		Not Observed Not Observed	Flaming < 10s/Compliant Flaming > 10s/Compliant
	Fs Flaming droplets/particles		Not Observed Not Observed	< 150mm within 60s/Compliant No ignition of paper/Compliant
EN ISO 11925-2 30s Surface Q101176-1000 Tested: 14/09/2020 E12945	Fs Flaming droplets/particles	6	Not Observed Not Observed	< 150mm within 60s/Compliant No ignition of paper/Compliant
EN ISO 11925-2 30s Edge Q101176-1000 Tested: 30/11/2020 E13187	Fs Flaming droplets/particles	7	Not Observed Not Observed	< 150mm within 60s/Compliant No ignition of paper/Compliant

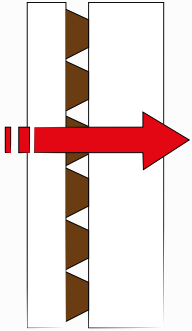
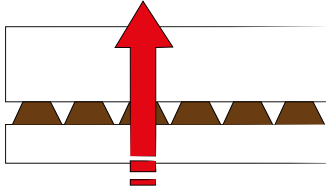
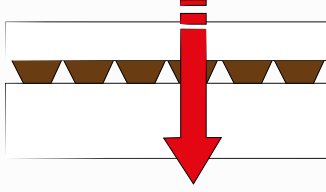
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'R' VALUE DELTA MS500

DIRECTION OF HEAT STREAM	Thermal resistance of an 8 mm air gap
Horizontal	 0.12 m <sup>2</sup> K / W
Upwards	 0.10 m <sup>2</sup> K / W
Downwards	 0.12 m <sup>2</sup> K / W

The thermal resistance values are calculated following DIN EN ISO 6946