



Description

Delta MS 500 Fire Retardant is a BBA certified 8mm studded cavity drain membrane with a Euroclass fire rating of B-S2, d0 (EN 13501-1:2018).

Delta MS 500 Fire Retardant is suitable for use on internal faces of earth retained walls, floors, and vaulted ceilings as a water management system for the protection of below ground structures against the potentially adverse effects of ground water ingress.

This High-Density Polyethylene (HDPE) cavity drainage membrane has an 8mm studded white profile creating a large 2.25 litre per square meter void suitable for use as part of a Type C waterproofing solution in accordance with BS 8102:2022 for the protection of below ground structures against the potentially adverse effects of ground water ingress, in waterproofing structures below ground level (basements) and isolating damp walls above ground level. The stud depth of 8mm provides a suitable air gap for use as a wall applied membrane.

Delta MS 500 Fire Retardant provides an effective barrier to the transmission of salts and other contaminants.

Features

- 8mm studded profile
- BBA Approved
- Euroclass fire rating B-S2, d0 (EN 13501:2018)
- Compressive Strength: >250 kN/m<sup>2</sup>
- Drainage capacity: 2.25 l/s m<sup>2</sup>
- Type C Waterproofing Protection
- Suitable for Waterproofing and damp proofing
- Suitable for flood resilience (PFR)
- Resistant to Radon

Durability

Subject to normal conditions, Delta MS 500 Fire Retardant will provide an effective barrier to the transmission of moisture, water, and water vapour for the life cycle of the structure.

Packaging

Supplied in 2.4m x 20m rolls

Product Details

DMS 850

Technical Data

Delta MS 500 Fire Retardant	
DMS	850
Material	High Density Polyethylene (HDPE)
Sheet Thickness	0.5mm
Stud Height	8mm
Roll Size	2.4m x 20m
Air Volume Between Studs	2 l/m <sup>2</sup>
Compressive Strength	>250 kN/m <sup>2</sup>
Drainage Capacity	2.25 v/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	B-S2, d0
R Value	0.12 m <sup>2</sup> K/W



# PRODUCT DATA SHEET

## Delta MS 500 Fire Retardant

Table 1: 30s Surface Exposure  
Temperature: 22.6°C  
Exposure Condition: Surface  
Number of Test Runs: 6

Relative Humidity: 51.2%  
Flame Application Time: 30s  
Deviations from Test Standard: None

Air Velocity: 0.67 m/s  
Operator: C. A. Rock

Run No.	Occurrence of Ignition Y/N	Time of Ignition (s)	Duration of Flaming (s)*	Flame Spread to 150mm (Y/N)	Time to Reach 150mm	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 60s test duration

Table 2: 30s Edge Exposure  
Temperature: 18°C  
Exposure Condition: Edge  
Number of Test Runs: 7

Relative Humidity: 51.5%  
Flame Application Time: 30s  
Deviations from Test Standard: None

Air Velocity: 0.69 m/s  
Operator: C. A. Rock

Run No.	Occurrence of Ignition Y/N	Time of Ignition (s)	Duration of Flaming (s)*	Flame Spread to 150mm (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 60s test duration

F Planar flat edge

P Profiled Edge

Test Method & Test Number	Parameter	No. Test Runs	Results	Compliance with parameters criterion/compliance status
EN 13823 Q101176-1001 Tested: 07/10/2020 24/11/2020 E12940 & E13187	FIGRA 0.2MJ	3	110.69 W/s	B-s2, d0 < 120 W/s Compliant
	FIGRA 0.4MJ		110.69 W/s	
	LFS		(-)	
	THR 600s		4.16 MJ	
EN ISO 11925-2 30s Surface Q101176-1000 Tested: 14/09/2020 E12945	SMOGRA	6	35.12 m²/s²	< 180 m²/s²/Compliant < 200m²/Compliant
	TSP 600s		83.73 m²	
	Flaming droplets/particles < 10s		Not Observed	
	Flaming droplets/particles > 10s		Not Observed	
EN ISO 11925-2 30s Edge Q101176-1000 Tested: 30/11/2020 E13187	Fs	7	Not Observed	< 150mm within 60s/Compliant No ignition of paper/Compliant
	Flaming droplets/particles		Not Observed	
	Fs		Not Observed	
	Flaming droplets/particles		Not Observed	



NBS Source

### Fields of Application

- As part of a Delta Cavity Drained Protection System
- Suitable for new, existing, and retrofit basement projects
- Can be linked to other Delta Type C Membranes
- A "reversible" system, which will minimise damage to historical or heritage structures
- Does not require extensive and damaging preparation to wall surface
- Flexibility to cope in structures where movement or vibration can be problematic
- Provides an effect barrier to the transmission of salts, liquid water, and water vapour
- Resistant to chemicals, root penetration, rotproof, neutral towards drinking water
- Suitable for Flood Resilience (PFR)h

### Safety

Always follow the instructions provided in the material safety data sheet and take the precaution described there. Wear appropriate Protective Personal Equipment (PPE) when applying and using the material. Observe all governmental, state, and local safety regulations when processing the material.

### Storage

- Delta MS 500 Fire Retardant is UV stable
- Store safely and keep out of reach of children
- Always store and transport in a secure upright position

### Guarantees

Delta Membrane Systems Limited offer a 30-year Product Guarantee on membranes, seals and fixings when a Delta Cavity Drain System has been installed by a Delta Registered Installer. A list of experienced Delta Registered Installers is available from Delta's offices.

### Associated Products

- Delta Fire Retardant Fleece Tape
- Delta Ultra Fix Plugs
- Delta Sealing Tape
- Delta Sealing Rope
- Delta Basement Drainage Systems
- Delta MS 20

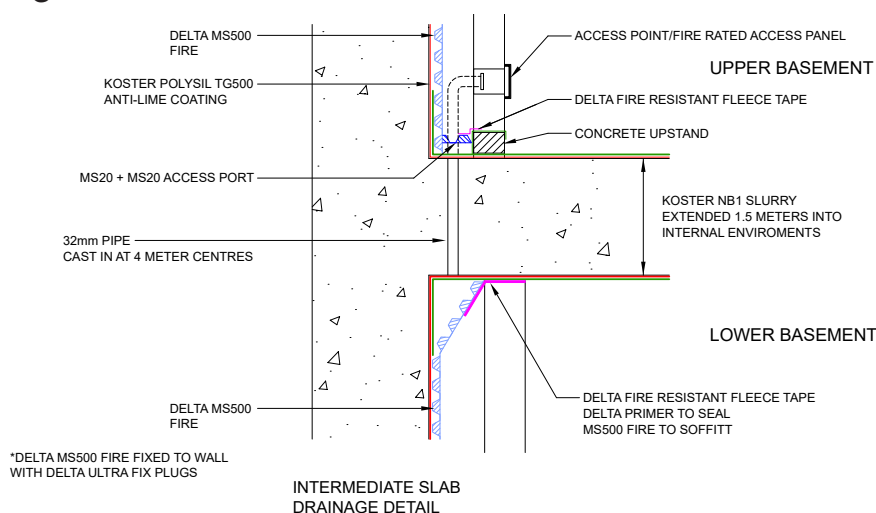
### Specification

- BS 8102:2022 Protection of below ground structures against water ingress. Code of practice.
- J40/290 High-density polyethylene/ polypropylene studded cavity drain membrane
- J40/47 High-density polyethylene/ polypropylene studded cavity drain membrane
- Classification Pr\_25\_57\_51\_74

### Installation

Please refer to the Delta Type C Installation Guide. Installation Guides can be found at [www.deltamembranes.com/technical/delta-installation-guides/](http://www.deltamembranes.com/technical/delta-installation-guides/). We have a number of "How to" subject related video guides available on your Youtube Channel and Website. Please visit [www.deltamembranes.com/technical/categories/the-video-suite/](http://www.deltamembranes.com/technical/categories/the-video-suite/).

### Technical Drawing - DWF-267A-2- (C)



### Other Information

All data and information contained in these Product/Technical Data Sheets is up-to-date and correct as at the date of issue. The information given is suggested as guidance and should only be used for evaluating your specific application. Delta Membrane Systems Limited cannot control or anticipate the conditions under which this product may be used, each user should review the information in specific context of the planned use. The information contained in these Product/Technical Data Sheets should not be considered a warranty, expressed, or implied, including but not limited to a warranty of merchantability or fitness for a particular purpose. In no event shall Delta Membrane Systems Limited be liable for any incidental or consequential damages resulting from the use, misuse, or inability to use the product. This exclusion applies regardless of whether such damages are sought based on breach of warranty, breach of contract, negligence, strict liability in tort, or any other legal theory. When in doubt, contact Delta's Technical Team on 01992 523 523.