# **DELTA®-MS DRAIN**

# The innovative sheet for dry cellar walls.

Dimpled sheet with an integrated drainage layer. Simple and cost-efficient foundation for dry cellar walls. Improved performance, improved protection.



Cellar wall protection and drainage rolled into one? DELTA® has a convincing, costefficient solution! **Optimum relief for cellar waterproofings:** 

# **DELTA®-MS DRAIN**

**Enhanced waterproofing protection. Drainage** 



#### **■** DELTA®-MS DRAIN

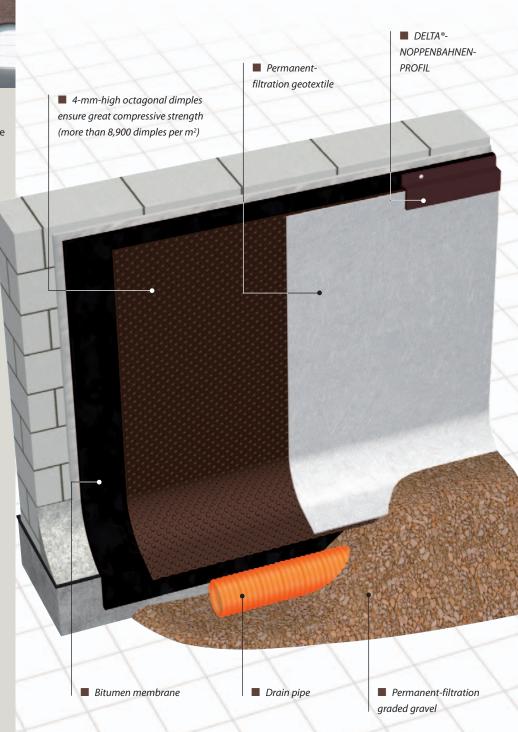
Dimpled sheets have been used for a long time to protect cellar walls from outside influences. Now, Dörken presents DELTA\*-MS DRAIN, an innovative dimpled sheet that doubles as a drainage layer!

■ Developed from the proven DELTA®-MS sheet, this product further enhances water-proofing protection because its contact area is four times larger than that of a normal dimpled sheet, which improves the distribution of pressure on the waterproofing bitumen coating/sheet by the same factor. An integrated layer of hydrophilic geotextile ensures that intruding water is drained away swiftly and permanently. Attractively priced, DELTA®-MS DRAIN is easy to put up and very easy to handle – the ideal protection for vertical cellar walls.

#### ■ DELTA®-Accessories

When working with DELTA®-MS DRAIN, you should take advantage of the following DELTA®-Accessories:

- DELTA®-NOPPENBAHN-PROFIL
- DELTA®-HAFTNAGEL
- DELTA®-MS DÜBEL
- DELTA®-TERRAXX-SCHRAUBE



DELTA®-Quality branded products made by Dörken.







DELTA®-MS DRAIN can be put up quickly and simply.

Integrated geotextile ensures reliable water drainage.

### e function included. Vastly improved pressure distribution.

#### DELTA®-MS DRAIN ...

- ... is a dimpled sheet made of special PE for compression-resistant surfaces.
- ... features an integrated water-permeable geotextile for drainage.
- ... has a drainage capacity of 1.0 l/s·m, more than three times the maximum water volume of 0.3 l/s·m which, according to DIN 4095 (drainage for building protection), might occur under unfavourable circumstances.
- ... features more than 8,900 dimples per m² which extremely improves pressure distribution compared to the c. 1,100 dimples of similar sheets.
- ... has 55 % of its surface in contact with the waterproofing; in normal dimpled sheets, it is no more than 6.5 to 13 %.
- ... has a particularly high compressive strength of 300 kN/m<sup>2</sup> thanks to its innovative, 4-mmhigh octagonal dimples.
- ... sustainably protects perimeter insulation from waterlogging.
- ... is safe for drinking water, resistant to bacterial, alkaline, and chemical attack as well as root penetration, and rot-proof in soil.
- ... is designed for installation depths
- ... is particularly tightly wound to save transport expenses.

of up to 8 m.





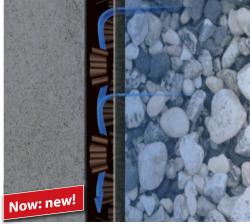
The dimples of many dimpled sheets press against the bitumen coating of cellar walls – a severe stress on the waterproofing.



Dimpled sheet without drainage function – intruding water cannot easily drain away.



In DELTA®-MS DRAIN sheets, dimples and geotextiles face outward – a great improvement in pressure distribution.



Through its high-performance drainage function, DELTA $^\circ$ -MS DRAIN offers an optimum escape for intruding water.

Conclusion: DELTA®-MS DRAIN offers everything users and craftsmen need to protect cellar walls in the best possible way. Satisfy yourself now about its advantages!

#### Benefit from this innovative DELTA®-Sheet!

#### Two layers – one complete system:

Layer 1: whereas the dimples of conventional dimpled sheet press against the bitumen coating, the dimples of DELTA®-MS DRAIN face outward, relieving pressure on the waterproofing.

**Layer 2:** filtering out fine-grained soil particles, the fused-on water-permeable geotextile keeps the system of channels between the dimples from silting up so that water may drain away freely to the drain pipe below.

Needless to say, we have a range of perfect accessories. For detailed information about the DELTA®-System, consult the DELTA®-System guides.

### **DELTA®-MS DRAIN**

#### Technical data overview:

| Material   | Dimpled high-density polyethylene sheet with a fused-on hydrophilic polypropylene geotextile. |
|--|---|
| Dimple height                                    | approx. 4 mm  |
| Air gap  | approx. 2.6 l/m <sup>2</sup>  |
| Characteristic<br>opening size<br>(EN ISO 13433) | approx. 0, 6 mm   |
| Compressive strength                             | approx. 300 kN/m²   |
| Drainage capacity                                | approx. 1,0 l/s · m   |
| Service<br>temperature range                     | - 30 °C to + 80 °C  |
| CE-conformability                                | DIN EN 13252  |
| Roll size  | 2 m x 30 m  |
| Pallet package                                   | 6 rolls (360 m²)  |

## DELTA®-Accessories for DELTA®-MS-DRAIN.

#### Dörken makes your life easier - systematically.

This is why you are sure to appreciate these handy DELTA®-Accessories:



## **DELTA®-NOPPEN- BAHNEN-PROFIL**Moulding cap. To

Moulding cap. To protect perimeter insulation boards we recommend using DELTA®-TERRAXX-PROFIL.



#### **DELTA®-HAFTNAGEL**

Adhesive pin to facilitate arranging overlaps.



#### **DELTA®-MS DÜBEL**

Plastic percussion plug for fastening sheets where nails cannot be used.



#### DELTA®-

TERRAXX-SCHRAUBE For securely fastening DELTA\*-MS DRAIN to perimeter insulation boards.

Patent-protected.





DELTA®-System ...

#### ... for owners:

"... What I get is a mature problem solution provided at a fair price by the top specialist in quality branded products!"

#### ... for workers:

"... What I get is a complete system made by a single manufacturer that enables me to do anything to the owner's entire satisfaction. There is no safer way!"

#### ... for planners:

"... I can be certain that both innovative and standard products will be used in implementing my roof and cellar plans in a systematic and forward-looking way."



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