



**Technický a zkušební ústav stavební Praha, s.p.
subsidiary office 0100 - Prague**

**Test laboratory 1018.5, accredited by the Czech institute for accreditation in
compliance with the Czech Code ČSN EN ISO/IEC 17 025**

Prosecká 811/76a, 190 00 Praha 9; tel.: 286 019 400; fax: 286 884 209

Test certificate

No. 010-023387

**of the moulded polyethylene (HDPE)
membranes DELTA NB and DELTA-TERRAXX**

This test certificate comprises of four written pages including the cover page. There are no appendices to this certificate. This test certificate or excerpts from this test certificate cannot be altered in any way.

In Prague, on 25th of August 2008




RNDr. Vojtěch Hötzel
head of test laboratory

1. Applicant's identification

Applicant: DÖRKEN, s.r.o.
Nad Vinným potokem 1149/2
101 11 Praha 10

Application: Z 010 08 0304

2. Type of the test

2.1. Product: 1/DELTA NB
2/ DELTA-TERRAXX

2.2. Test specification: Assessment of resistance after exposure to liquid chemical agents according to the Czech Code ČSN EN 1847: 2001

2.3. Samples taken and preparation: Samples for testing were taken and delivered to TZÚS, s.p. branch office 0100 - Prague by the applicant on 24th of June 2008. Test samples were prepared for test in compliance with respective codes.

3. Test methods, regulations and procedures

3.1. Test procedures were carried out in compliance with the following codes:

ČSN EN 1847: 2001 Waterproof bands and foils - Plastic and rubber bands and foils for construction of roof water membranes - Methods of exposures to liquid chemical agents including water.

3.2. Deviations from the prescribed test procedure:

No deviations detected.

4. Test equipment

- Laboratory glass thermometer, ID: 175

Test equipment and gauges used during the tests have been calibrated by an authorised office. Calibration and verification sheets have been archived at the person responsible for metering procedures.

5. Test results

The test was carried out between 18th and 25th of August 2008. The test samples were exposed to the chemical agents for 72 hours. Ambient temperature during the test was $(23\pm 2)^{\circ}\text{C}$ and relative humidity was $(50\pm 5)\%$.

5.1 Assessment of resistance after exposure to liquid chemical agents

Ambient environment in the laboratory: temperature: $(23\pm 2)^{\circ}\text{C}$, relative humidity: $(50\pm 5)\%$.

1/ DELTA NB

Sample identification	1	2	3
Testing liquid	petrol	diesel	engine oil
Rating of changes*	O	O	O
Verbal assessment of changes	no change	no change	no change

2/ DELTA-TERAXX

Sample identification	1	2	3
Testing liquid	petrol	diesel	engine oil
Rating of changes*	O	O	O
Verbal assessment of	no change	no change	no change

*Rating scale: change of appearance: O = no change, F = small change, M = medium change
L = big change

6. Information on elaborator of the test certificate

Testing organization: Technický a zkušební ústav stavební Praha, s. p.
Prosecká 811/76a, 190 00 Praha 9

Subsidiary office: Branch office 0100 - Prague
Zkušební laboratoř č. 1018.5
Prosecká 811/76a, 190 00 Praha 9
tel.: 286 019 400; fax: 286 884 209

Technical director for OSH tests
Ing. Zdeněk Kočí

v. z. Voj

Responsible expert:
Novák Jiří

h. h.

Clause of the test laboratory:

Test results are based only on the samples tested. Without prior consent of the test laboratory, this test certificate cannot be published other than as the whole document. Neither the test certificate or any excerpts of it can be altered.

W. Hötzl



Ing. RNDr. Vojtěch Hötzl
head of test laboratory