



Universität Stuttgart

IGE

Institut für
GebäudeEnergetik

Lehrstuhl für
Heiz- und
Raumluftechnik

**Report about the oxygen permeability test
of plastic pipe according to ISO 17455 and DIN 4726
without preconditioning**

Medifly TRIFLY RAY

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Test report

No.: KM.10.P.301

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Report-No.: KM.10.P.301

Determination of the oxygen permeability of the barrier plastic pipe according to ISO 17455 and DIN 4726.

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3 Manufacturer / Production	Medifly S.r.l. Via Stratale 12, ex 141/B 41036 Medolla / Italy
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Summary

The plastic pipe fulfils the requirements according to ISO 17455 and DIN 4726. Oxygen permeability at 40°C is lower than 0,10 g/(m³ x d) according to DIN 4726:2000 and lower than 0,32 mg/(m² x d) according to DIN 4726:2008.

Stuttgart, 18.06.2010



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Dipl.-Ing. A. Ruppert

4 Sample identification

One bundled coil of approx. 50m of light blue coloured pipe.

Designation: I TRIFLY RAY TM 5,5 x 8 OXYGEN BARRIER LOT. 17032010 UNI EN ISO 21003 MADE IN ITALY

Delivered by the applicant at 30.03.2010

Test period: 14.04. to 07.05.2010 at DAP-PL-3289.00

5 Tests

Tests have been performed according to ISO 17455 method II and DIN 4726.

6 Test results

6.1 Dimensions

Average outside diameter $d_o = 7,9$ mm

Total wall thickness $s = (1,05 - 1,15)$ mm

Middle outside diameter of the barrier layer $d_b = 6,3$ mm

6.2 Oxygen permeability

Plastic pipe named at part 3 is tested to the requirements mentioned at part 5 without preconditioning of 28 days according to DIN 4726. Oxygen permeability is conducted in delivery conditions.

Test results only refer to the tested sample.

Measurement	Flux [g/(m ³ x d)]
1	0,008
2	0,009
3	0,010
Average	0,009

Table 1: Oxygen permeability (volume-rated) according to DIN 4726:2000

Measurement	Flux [mg/(m ² x d)]
1	0,010
2	0,010
3	0,013
Average	0,011

Table 2: Oxygen permeability (surface-rated) according to DIN 4726:2008