



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.300K

1. Copy



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Report-No.: KM.10.P.300K


Determination of the oxygen permeability of the barrier plastic pipe
according to ISO 17455:2005 and DIN 4726:2008.

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3 Manufacturer / Production	Medify 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 17455:2005 and DIN 4726:2008. Oxygen permeability at 40°C is lower than 0,10 g/(m² x d) according to DIN 4726:2000 and lower than 0,32 mg/(m² x d) according to DIN 4726:2008.

Stuttgart, 05.07.2010


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4 Sample identification

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

Designation: I TRIFLY RAY TM 7 x 10 OXYGEN BARRIER LOT. 22032010 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 17455:2005 method II and DIN 4726:2008.

6 Test results

6.1 Dimensions

Average outside diameter $d_o = 10,15\text{mm}$

Total wall thickness $s = (1,3 - 1,4)\text{ mm}$

Middle outside diameter of the barrier layer $d_b = 8,45\text{ mm}$

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 determined in delivery conditions.

Test results only refer to the tested sample.

Measurement	Flux [$\text{g}/(\text{m}^3 \times \text{d})$]
1	0,006
2	0,006
3	0,007
Average	0,006

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

Measurement	Flux [$\text{mg}/(\text{m}^2 \times \text{d})$]
1	0,009
2	0,009
3	0,012
Average	0,010

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

7 Remarks

This test report replaces the invalid test report KM10P300 from 18.06.2010.

Following have been changed:

- Issue date of standards have been added.