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2009-07-13
M60 836/49 msg

Time
Manufacturer Kvadrat A/S

Determination of the air flow resistance according to EN 29053

Test Report No. M60 836/49

Client:	Kvadrat A/S Lundbergsvej 10 DK – 8400 Ebeltoft
Acoustic consultant:	M. Eng. Philipp Meistring
Date of report:	2009-07-13
Date of delivery of test objects:	2009-07-09
Date of measurements:	2009-07-09
Total number of pages:	In total 6 pages: 4 pages text, 1 page Appendix A and 1 page Appendix B

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1 Task

On behalf of the Kvadrat A/S company, DK – 8400 Ebeltoft, the airflow resistance of the curtain fabric Time has to be measured according to EN 29053 [1].

2 Basics

This test report is based on the following documents:

[1] EN 29053 “Acoustics – Materials for acoustical applications – Determination of airflow resistance”. 1993

3 Test object

The tested material is described by the manufacturer as follows:

- curtain fabric
- manufacturer Kvadrat A/S
- type Time (color 300)
- material 100 % Trevira CS

Müller-BBM has determined the following parameters:

- area specific mass m'' = 177 g/m²
- total thickness t = 0.37 mm

4 Execution of measurements

The airflow resistance was determined according to EN 29053 [1] .

The measurements for the determination of the airflow resistance were carried out at different air velocities. The continuous airflow method was applied. The specimen holder has a diameter of 100 mm. The test specimen was fitted flat over the specimen holder, without stretching the material, sealed at the edges and fixed.

According to the standard the specific airflow resistance R_s is indicated as measurement result which was determined by extrapolation (linear regression) at an airflow velocity of u = 0.0005 m/s.

The test equipment listed in appendix B was used for the measurements.

5 Measurement results

For the tested fabric, type Time, a specific airflow resistance of R_s = 66 Pa · s/m was determined.

For further information regarding the measurements, see Appendix A.

6 Remark

The determined test results only refer to the prevailing conditions on the day of measurements.

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Dr.-Ing. Andreas Meier

M. Eng. Philipp Meistring

MÜLLER-BBM
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Deutscher Akkreditierungs Rat
DAR

DAP-PL-2465.10

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DIN EN 29053

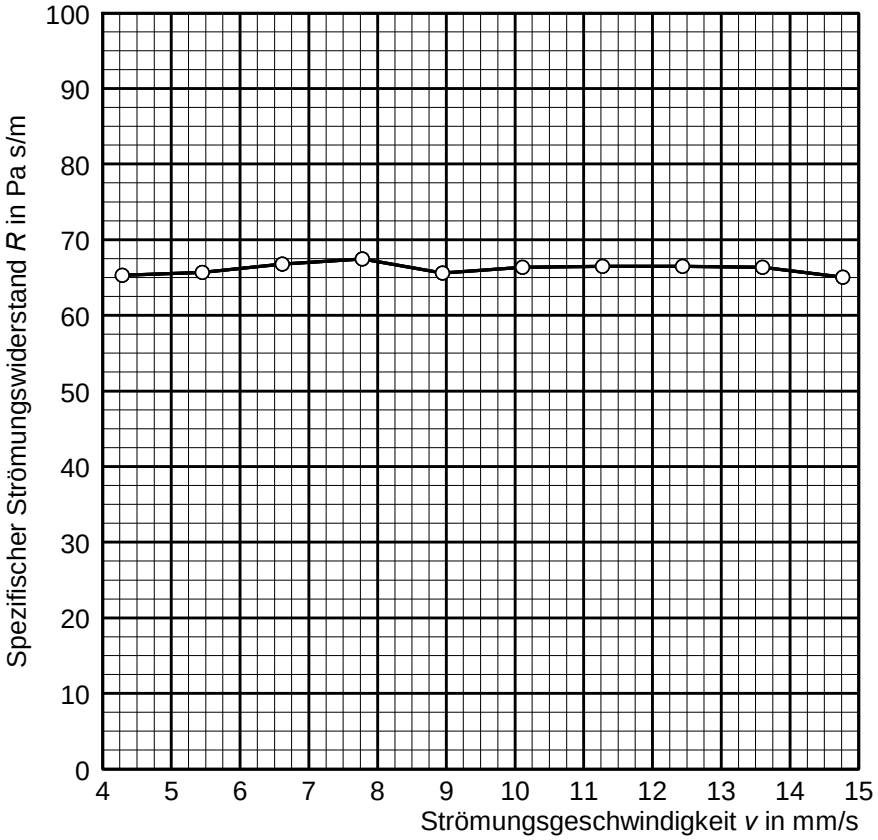
Bestimmung des Strömungswiderstandes

Auftraggeber: Kvadrat A/S, Lundsbergsvej 10, 8400 Ebeltoft Denmark
Auftragsnummer: M60836
Auftragsdatum: 09.07.2009

Dicke: 0,37 mm
Flächenbez. Masse: 177 g/m²
Dichte: 478,38 kg/m³
Prüfobjekt: - fabric Kvadrat A/S, type Time 300
- material: 100 % Trevira CS

Probendurchmesser:
D = 100,0 mm
Luftdruck:
B = 95,5 kPa
Temperatur:
θ = 25,5 °C
Relative Feuchte:
r. h. = 42,0 %

v [mm/s]	*R* [Pa s/m]
4,28	65
5,45	66
6,62	67
7,78	67
8,94	66
10,11	66
11,27	67
12,44	67
13,60	66
14,77	65



Spezifischer Strömungswiderstand R_s = 66 Pa s/m

Prüfstelle: Müller-BBM Planegg
Prüfer: Moll
Prüfdatum: 09.07.2009

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List of test equipment

For the measurements and evaluations, the following test equipment was applied:

Name	Manufacturer	Type	Serial-No.
Digital Mass Flow Controler	Bronkhorst	E-201CV-5KO-RGD-33V	M8211608A
Digital Power Supply / Readout Systems	Bronkhorst	E-7100-13-01-01-RBB	M8211608B
Differential pressure transmitter with DSCM-A	Halstrup Walcher	P26	M8211704G
Software for data logging and evaluation	Müller-BBM	AirFlowControl	v1.1