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2012-11-09
M100827/07 MSG/JRE

Upholstery fabric Canvas
Manufacturer Kvadrat A/S

Determination of the airflow resistance according to EN 29053

Test Report No. M100827/07

Client:	Kvadrat A/S Lundbergsvej 10 DK – 8400 Ebeltoft
Consultant:	M.Eng. Philipp Meistring
Date of report:	2012-11-09
Date of delivery:	2012-11-06
Date of test:	2012-11-08
Total number of pages:	In total 6 pages: 4 pages text, 1 page Appendix A and 1 page Appendix B.

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Certified quality management system according to ISO 9001
Accredited testing laboratory according to ISO/IEC 17025

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Table of contents

\\S-MUC-FS01\ALLEFIRMEN\MProj\100\M100827\M100827_07_PBE_1E.DOC : 13. 11. 2012

1 Task

On behalf of Kvadrat A/S, DK – 8400 Ebeltoft, the airflow resistance of the upholstery fabric type Canvas 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:

- Upholstery fabric type Canvas
- manufacturer Kvadrat A/S
- material: 90 % new wool, 10 % nylon

The test laboratory has determined the following parameters:

- area specific mass m'' = 323 g/m²
- thickness t = 0.72 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.

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5 Measurement results

For the tested upholstery fabric type Canvas, a specific airflow resistance of R_s = 559 Pa · s/m was determined.

For further information regarding the measurements, see Appendix A.

6 Remarks

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

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M. Eng. Philipp Meistring

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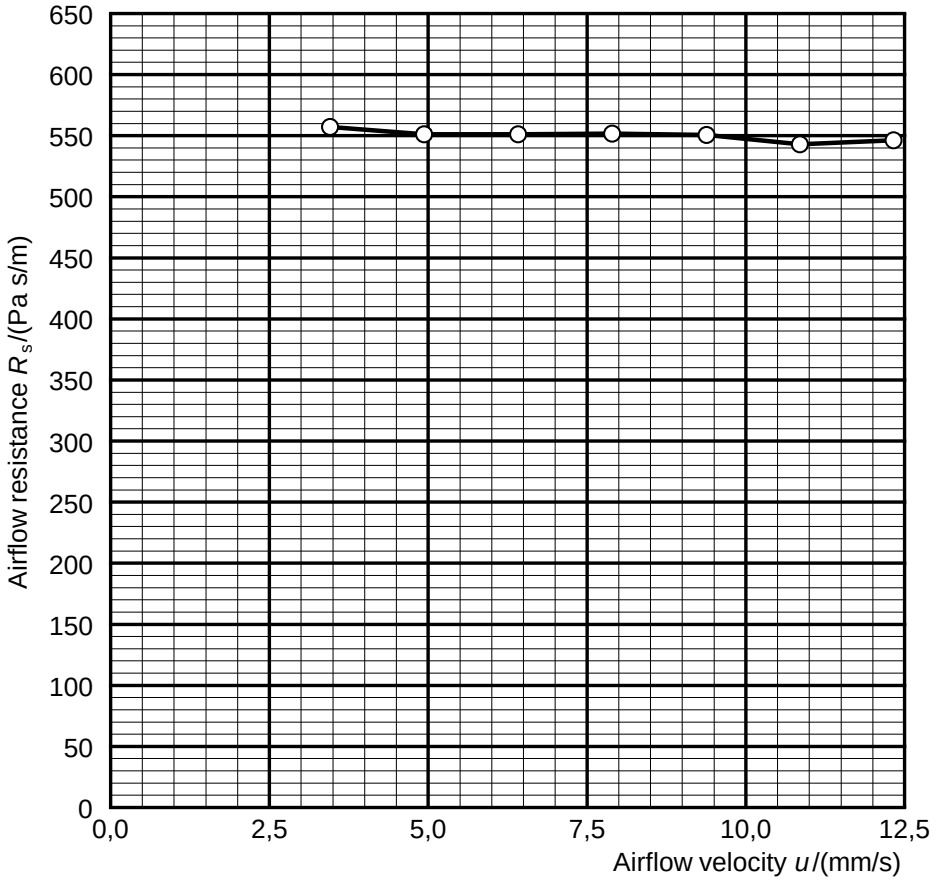
EN 29053
Determination of airflow resistance

Client: Kvadrat A S
8400 Ebeltoft Denmark
Order Number: M100827
Müller-BBM Probe Number: 8283
Test object: - upholstery fabric type Canvas
- material: 90% new wool, 10% nylon

Diameter:	100	mm
Thickness:	0.72	mm
Area-specific mass:	323	g/m^2

Barometric pressure:
B = 95,6 kPa
Temperature:
θ = 22,8 °C
Relative humidity:
r. h. = 20,4 %

u/ (mm/s)	R_s/ (Pa s/m)
3.46	557
4.94	551
6.41	551
7.89	551
9.38	551
10.85	543
12.33	546



Airflow resistance R_s = 559 Pa s/m

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Laboratory:	Planegg
Responsible:	prgls / msg
Date:	2012/11/08

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List of test equipment

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

Name	Manufacturer	Type	Serial-No.
air flow resistance measurement system	Müller-BBM	M89319-00	315003
Software for data logging and evaluation	Müller-BBM	m|ars	v1.0.0.2
Digital measuring slide	Mitutoyo	CD-15PPR	07019377
Electronic balance	Kern	440-49N	WC0633572

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