

Airflow resistance in the sense* of EN 29053 (ISO 9053)
Measurement of specific airflow resistance

A 05-2 E

Test subject:

Name: BETACOUSTIC Col. 0011
 Description: furnishing fabric, 100% PLF TREVIRA CS
 Manufacturer: création baumann Weberei und Färberei AG
 CH-4901 Langenthal
 Client of measurement: manufacturer



Measurement conditions:

Standard: EN 29053: Materials for acoustical applications; Determination of airflow resistance (ISO 9053)
 Method: direct-airflow method, measurement at 10 different airflow velocities and extrapolation to an airflow velocity of 0,5 mm/s
 Specimen holder: round, diameter 99,5 mm
 Temperature: 21 °C
 Relative humidity: 65 %
 Date of measurement: 2012-09-28

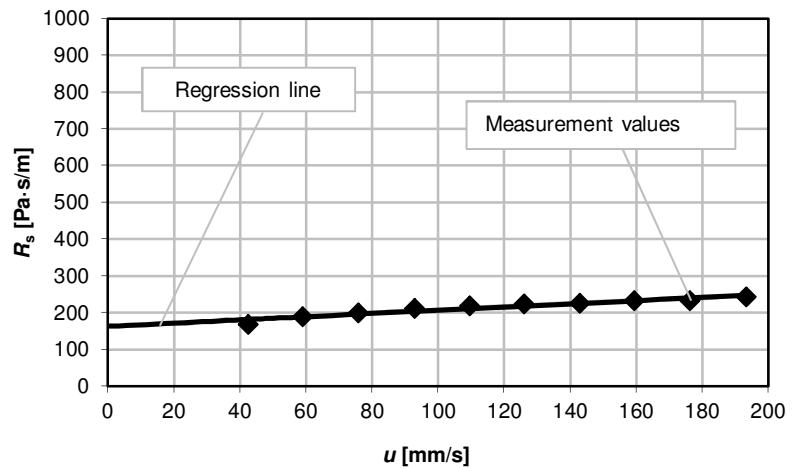
Specimen:

Number of specimen: 2 of 2
 Diameter of specimen: 99,5 mm
 Effective cross section: 77,76 cm²
 Thickness of specimen: -
 Measurement setup: specimen fit in specimen holder

* required number of specimens according to EN 29053: 3 x 3 = 9

Measurement result:

	u	Δp	R_s
Measurement values	193,3	47,1	243,7
	176,2	41,1	233,3
	159,4	37,0	232,4
	142,8	32,2	225,5
	126,1	28,2	223,4
	109,5	23,9	217,7
	92,8	19,6	211,0
	75,8	15,1	199,5
	58,9	11,1	188,2
	42,4	7,2	168,5
Extrapolation	0,5		163,1



Airflow velocity u in mm/s

Pressure drop across the specimen Δp in Pa

Specific airflow resistance R_s in Pa·s/m

Single value:

Specific airflow resistance $R_s = 163,1 \text{ Pa·s/m}$

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Report-No.: 120500085501-A05-2E
 Editor: V. Bormann, M. Ruhnau
 Date: 2012-10-18