

Airflow resistance on the basis* of DIN EN 29053 (ISO 9053)

Measurement of specific airflow resistance R_s

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Measuring sample:

Name: SONIC
 Description: acoustic fabric, 100% PLF CS
 Manufacturer: création baumann Weberei und Färberei AG
 CH-4901 Langenthal
 Client of measurement: manufacturer



Measuring conditions:

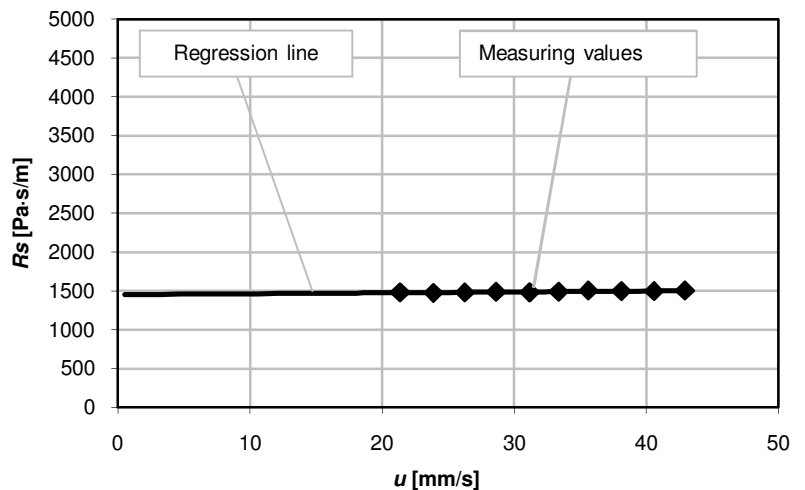
Standard: DIN EN 29053: Materials for acoustical applications; Determination of airflow resistance (ISO 9053)
 Method: direct-airflow method, measurement at 10 different airflow velocities and extrapolation to an airflow velocity of 0,5 mm/s
 Specimen holder: round, diameter 112,8 mm
 Temperature: 23 °C
 Relative humidity: 47 %
 Measurement date: 2010-09-23

Specimen:

Number of specimen: 1 of 1
 Diameter: 112,8 mm
 Effective cross section: 100,00 cm²
 Thickness: -
 Measurement setup: specimen (ca. 200 mm x 180 mm) clamped tight in specimen holder
 Direction of flow: from visible face to rear side
 * required number of specimens according to ISO 9053: 3 x 3 = 9

Measurement result:

	u	Δp	R_s
Measuring values	42,9	64,5	1504,1
	40,6	60,7	1496,4
	38,1	57,1	1499,6
	35,6	53,6	1503,5
	33,4	49,8	1491,4
	31,2	46,2	1483,1
	28,6	42,6	1487,9
	26,3	38,9	1478,9
	23,9	35,3	1478,0
	21,4	31,7	1482,5
Extrapolation	0,5		1451,8



Airflow velocity u in mm/s
 Pressure difference over specimen Δp in Pa
 specific airflow resistance R_s in Pa·s/m

Measuring result: Specific airflow resistance $R_s = 1451,8 \text{ Pa·s/m}$

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