



TEST REPORT
MAA-FLOWRES-PG0423

**Measurement of specific airflow resistance
according to UNI EN ISO 9053-2:2020**

Client Pugi.rg srl
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51037 Montale (PT)

Test date 08/05/2023

Test laboratory Laboratorio di Acustica - Dipartimento di Ingegneria
Università degli Studi di Ferrara
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Measurement method Alternating airflow method according to ISO 9053-2:2020

Tested material

Fabric	
Model	Convert Melange
Composition	100% Recycled PL FR
Weight	340 ± 10% g/m ²

Flow velocity 1.07 mm/s

**Frequency of the piston
movement** 2 Hz

Number of test specimens 3

Diameter of test specimen 100 mm

Picture of test specimens





Result calculation

$$R_s = \frac{\Delta p}{q_v} \cdot A$$

where:

Δp is the RMS air pressure difference, across the test specimen, due to the alternating airflow [Pa];

q_v is the RMS volumetric airflow rate, passing through the test specimen [m³/s];

A is the cross-section area of the test specimen, perpendicular to the direction of flow [m²].

Test equipment

Name	Manufacturer	Model
Microphone	Brüel & Kjær	4165
Preamplifier	Larson Davis	900B
Acquisition System	NI	4431
Software	Materiacustica	Resitivity_MAA

Environmental conditions

Temperature	24°C
Relative Humidity	44%
Atmospheric Pressure	1008 mbar

Results			
Specific airflow resistance R_s (Pa·s/m)	Specimen A	Specimen B	Specimen C
	649	638	615
R_s (Average)	634 Pa·s/m		
R_s (Standard deviation)	17 Pa·s/m		

Ferrara, 11/05/23

The responsible for the test
Dr. Andrea Farnetani PhD