Sound transparent fabrics // Gerriets Interior Acoustic Solutions

The flow resistance is one of the important factors which influence the sound absorption of a material. Materials with a very low flow resistance can be defined as sound transparent.

The quotient of the difference in air pressure Δp [Pa] between the two faces of a sheet of porous material by the particle velocity u [m/s] of airflow through the sheet is defined as the specifiv flow resistance:

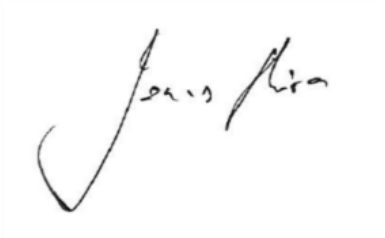
$R_s = \Delta p / u$ [Pa s/m]

The specific flow resistance of any porous material increases with an enlarging thickness of the absorber. As the defining paramter in relation with the specifi thickness d [m], the length related flow resistance can be defined:

$r = R_s / d$ [Pa s/m²]

The following materials show a very low specific flow resistance and are therefore applicable as speaker cloth or sound transparent screens:

Material	R_s [Pa s/m]	Weigth [g/m²]
Sheer Muslin	12,5	90
OPERA micro	21	390
Skylight 350g	23,3	350
Megastretch 450	34,5	95
Skylight 290g	37	290
Banner Material CS	72	150
Kandel	79	300
Tristan	107	200
Bühnennessel CS	212,5	300
GERRA CS	250	285



Jonas Schira
Bachelor of Arts
Sales- & Key-Account Manager Acoustics

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