

Acoustic Vents - Portable Electronics

Product Information - Integrated Venting Solutions

Portable electronic devices are increasingly used in outdoor environments. Therefore, it is essential to protect the speaker and microphone on these devices from environmental contaminants that could impair their effectiveness. Donaldson's acoustically transparent filtration products provide speakers and microphones with an effective barrier to dirt, dust, hairspray, oils, perspiration, and water.

Applications

- Mobile phone
- Bluetooth earphone
- Outdoor radio
- Interphone/ Two-way radio
- MP3 player
- Smart phone

Features

- Prevents ingress of dirt, moisture, and other airborne contaminants
- Reduces wind noise
- Minimizes frequency transmission loss
- Withstands temperature fluctuations

Manufacturing Capabilities

- Precision die cut and over-molded products ensure easy and complete device integration
- Product development performed in-house by filtration engineers using acoustic testing and analysis equipment

Installation Instructions

For optimum adhesion, the bond surface should be cleaned with typical cleaning solvent and thoroughly dried. Application temperature should be between 21° C - 38° C, and application pressure should be moderate to firm (~300 - 500 gm/sq cm).



Donaldson's acoustic vents are comprised of filtration material and a pressure-sensitive adhesive ring for securing the filter to the device.

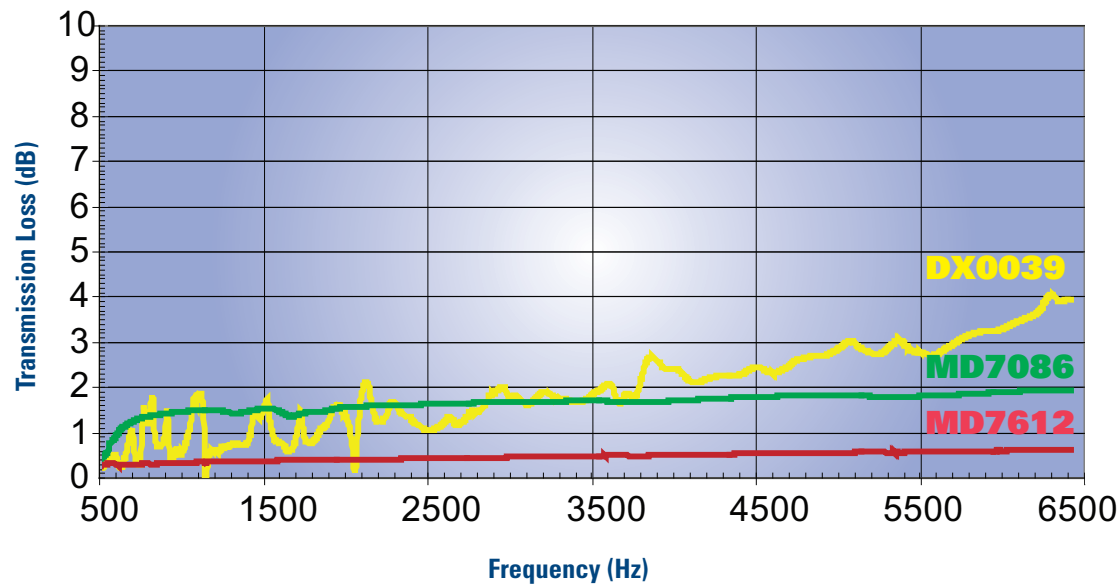
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Donaldson acoustic media can be used in the speakers and microphones of portable electronics.

Standard Acoustic Media Characteristics

Property	Units	DX0039	MD7086	MD7612
Matrix	-	ePTFE/PET	PA	PET
Thickness	mm	0.02	0.20	0.13
Transmission Loss	dB	< 4.00	< 0.50	< 0.10
Airflow @1kPa	l/sec/m ²	24.5	670	2640
Water Entry Pressure	cm H ₂ O	1530	15	2.50
Ingress Protection Level	ISO Rating	IP68	IP44	IP44
Temperature Resistance	-	- 40° C - 150° C	- 40° C - 150° C	- 40° C - 150° C

Standard Acoustic Media Transmission Loss



Tests based on the two microphone transfer function methods according to ASTM E1050-98 and ISO 10534-2.

* Application-specific results will vary depending on the exact configuration of the final part.

Contact us to increase the reliability of your portable electronics!

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