

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, hair spray, oils, perspiration, and water.

APPLICATIONS

- Cell phone
- Smart phone
- Portable media players
- Bluetooth earphone
- Outdoor radio
- Interphone/Two-way radio

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

ACOUSTIC VENTS FOR PORTABLE ELECTRONICS

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

ACOUSTIC MEDIA CHARACTERISTICS

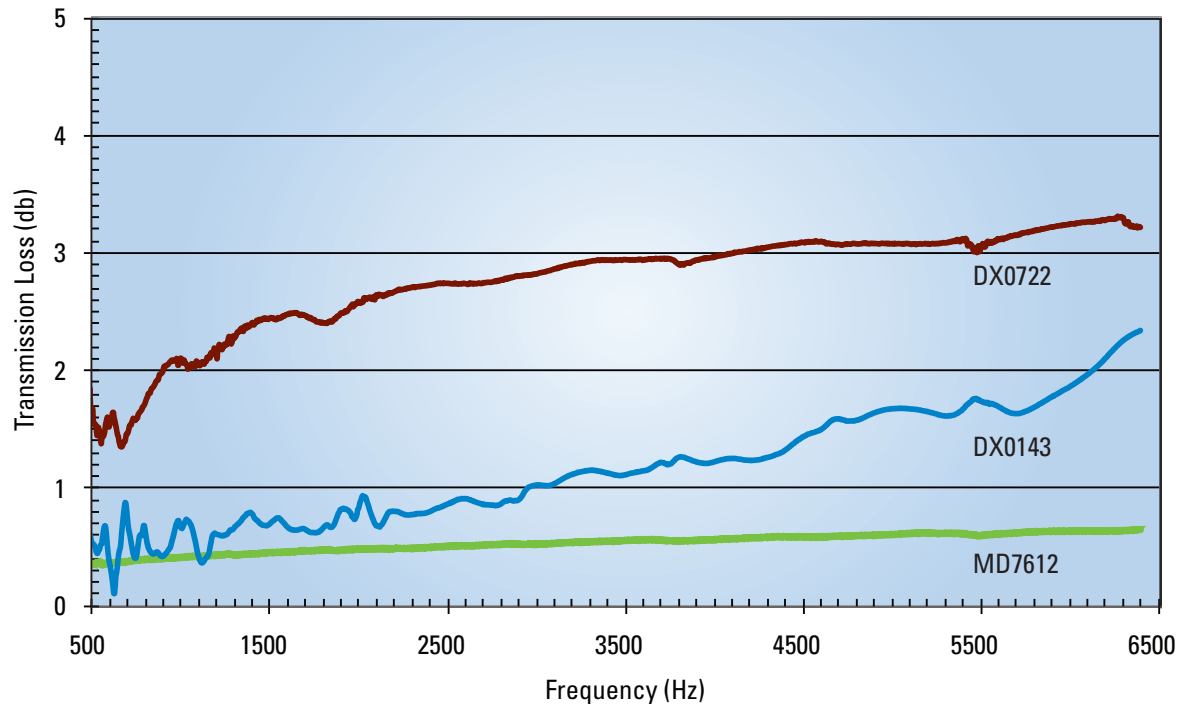
Property	Units	MD7612	DX0143	DX0722
Material	-	Polyester	ePTFE*	Polyester
Color	-	White	White	Black
Thickness	mm	0.13	0.02	0.06
Transmission Loss 500-6500 Hz	dB	< 0.8	< 2.5	< 3.4
Airflow @ 12 mbar	l/Hr/cm ²	11,400	7	1,182
Water Entry Pressure	cm H ₂ O	11	1430	20
Oleophobicity Rating**	1-8	7	7	7
IP Rating	-	IP44	IP67	IP44

Other filter materials are also available.

* Expanded Polytetrafluoroethylene

** Based on AATCC Spec 118-1992 and ISO 14419

ACOUSTIC MEDIA TRANSMISSION LOSS*



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

* Transmission loss based on a 29 mm diameter filter. Application-specific results will vary depending on the exact configuration of the final part.

Contact us to increase the reliability of your micro-electronics.



Donaldson Company, Inc.
Integrated Venting Solutions
PO Box 1299
Minneapolis, MN
55440-1299 U.S.A.
Tel +1 952-887-3874 (USA)

donaldson.com
ivs@donaldson.com

Europe
Leuven, Belgium
+32-16-38-3710

Asia
Hong Kong, China
+852-2405-8319

Acoustic Vents for Portable Electronics (05/10)

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