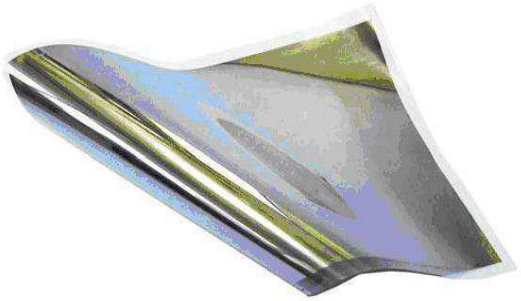
METALLIZED PIEZO FILM SHEETS



SPECIFICATIONS

- **Thin, flexible film sheets**
- **Multi-purpose … design your own Sensor**
- **Different Electrode Options – Sputtered metallization or Silver ink**
- **Various Film Thickness Options**

Piezo Film Sheets are available in different film sizes and thicknesses. These can be fabricated into simple transducers, or for use as full size sheets for applications such as speakers.

Metallization options include a compliant silver ink as well as sputtered metallization. The silver ink is best for applications where mechanical stress is being applied. Silver ink also lends itself to custom metallization patterns for easy lead attachment.

The thin, sputtered metallization is more brittle and used where signal to noise requirements dictate very low mass loading by the electrodes. Our standard sputtered metallization is 700 Å of copper covered with 100 Å of nickel, which has good conductivity and is resistant to oxidation. Other metallizations such as gold are available on a custom basis with a set-up fee. For the sputtered Metallized film, there is no border.

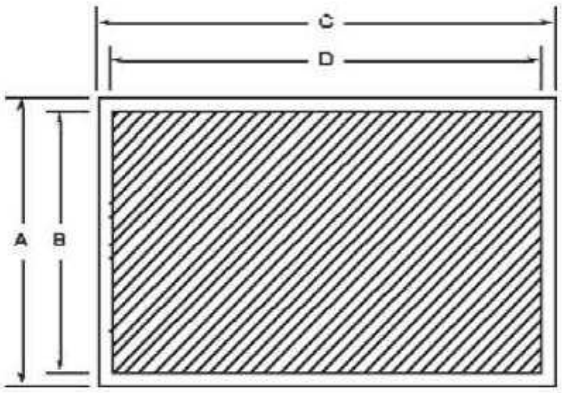
FEATURES

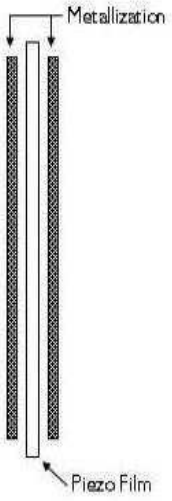
- Film Thickness Options: 28µm, 52µm, 110µm PVDF
- Electrode Type Options: Silver Ink & NiCu Metallization
- Sheet Size Options: 8” x 5.5” and 8” x 11”

APPLICATIONS

- Film Transducer
- Speaker Element

DIMENSIONS





DIMENSIONS in INCHES (mm)

Film Thickness	Total Thickness (µm)	Metallization	A Film	B Electrode	C Film	D Electrode	Part Number
28 µm	28	Cu-Ni	8.00 (203)	8.00 (190)	11.00 (280)	11.00 (267)	1-1003702-7
28 µm	40	Silver Ink	8.00 (203)	7.50 (190)	5.50 (140)	5.00 (127)	1-1004347-0
28 µm	40	Silver Ink	8.00 (203)	7.50 (190)	11.00 (280)	10.50 (267)	1-1004346-0
52 µm	52	Cu-Ni	8.00 (203)	8.00 (190)	11.00 (280)	11.00 (267)	2-1003702-7
52 µm	64	Silver Ink	8.00 (203)	7.50 (190)	5.50 (140)	5.00 (127)	2-1004347-0
52 µm	64	Silver Ink	8.00 (203)	7.50 (190)	11.00 (280)	10.50 (267)	2-1004346-0
110 µm	110	Cu-Ni	8.00 (203)	8.00 (190)	11.00 (280)	11.00 (267)	3-1003702-7
110 µm	122	Silver Ink	8.00 (203)	7.50 (190)	5.50 (140)	5.00 (127)	3-1004347-0
110 µm	122	Silver Ink	8.00 (203)	7.50 (190)	11.00 (280)	10.50 (267)	3-1004346-0

TYPICAL SPECIFICATIONS

Electro-Mechanical Conversion
(1 direction) 23 x 10^{-12}m/V, 700 x 10^{-6}N/V
(3 direction) -33 x 10^{-12}m/V

Mechano-Electrical Conversion
(1 direction) 12 mV per microstrain, 400 mV/µm, 14.4 V/N

Pyro-Electrical Conversion
(3 direction) 13 mV/N
8V/°K (@ 25°C)

Capacitance
1.36 nF; Dissipation Factor of 0.018 @ 10 KHz;
Impedance of 12 KΩ @ 10 KHz

Maximum Operating Voltage
DC: 280 V (yields 7 µm displacement in 1 direction)
AC: 840 V (yields 21 µm displacement in 1 direction)

Maximum Applied Force (at break, 1 direction)
6-9 kgF (yields voltage output of 830 to 1275 V)