

ADVANCED MATERIALS

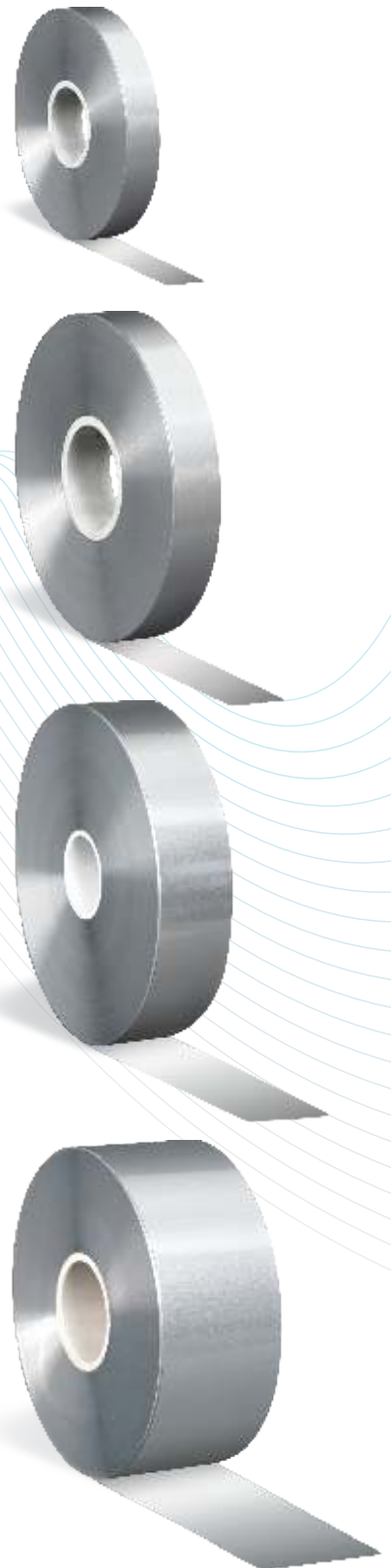
THIN FILM DIELECTRICS

The quest for protecting the environment while improving quality of life has never before been as intense as now.

A key component of this effort is the conservation and optimization of use of all forms of energy. The electrical & electronics industry has a vital role in developing superior products to help achieve the goal.

Superior products can be realized only from superior inputs viz., Advanced Materials and processes.

MEHER ADVANCED MATERIALS (MAM) offers a contemporary range of metallized Polypropylene film for the Capacitor industry. The extensive experience gained in the application of wide ranging varieties of Zinc alloy MPP, by association with the erstwhile Meher Capacitors, has given us a unique position to offer the right kind of metallized film for every application.



What do we offer

MAM has focused on the production of Zinc alloy MPP film with reinforced edge to offer significant benefits to the user.

- Stable capacitance value over long periods of use.
- Efficient and reliable end connections from the spraying of the capacitor element.
- Ability to withstand higher electrical stress levels.

The base Polypropylene(PP) film is obtained from reputed international manufacturers to MAM's stringent specifications.

The variants of Zinc alloy MPP film presently offered are;

- Standard type
- Series type
- Slope metallization
- Wave cut on the free margin side or heavy edge side to suit customer requirement

Specifications

Thickness	3 to 12 μm (microns)
Slit widths	10 to 150 mm

Slit widths with free margin tolerances

Slit width / tolerance (mm)	Free margin / tolerance(mm)
10 to 20 ± 0.20	1.0 ± 0.10 / 1.50 ± 0.15
Above 20 to 50 ± 0.30	2.0 ± 0.30 / 2.50 ± 0.40
Above 50 to 150 ± 0.40	2.0 ± 0.30 / 2.50 ± 0.40

Standard Surface Resistance

Reinforced edge	Active area	Average
2.5 $\pm 1W$ /sq.	7.5 $\pm 2.5W$ / sq.	6.0 $+3.0 -2W$ /sq.

Note: Customer specified resistance shall be supplied.

Cores

Type	ID	Width tolerance
Plastic / Metal	76 $\pm 1\text{mm}$	$\pm 0.4\text{mm}$

Typical dielectric properties & values

Property	Value	Test method
Density (gm/cm ³)	0.91	JIS 2330
Tensile strength(kg/mm ²)	MD - 18 / TD - 32	JIS 2330
Heat shrinkage (%)	MD < 5 / TD < 1	JIS 2330
Dielectric constant	2.2	JIS 2330

Our advanced production facility

The metallizing line at MAM is equipped with proven and state-of-art production machines, operated by skilled personnel.

Metallizer

Vacuum Metallizing plant

Ulvac - Japan



Slitting Machines

Vacotec - South Korea

Toray - USA

Tecvac - UK

Thickness

3 to 12 microns

Rewinding range

160 to 350 mm diameter



Wave cut

5 mm wave length with 0.8 mm amplitude

10 mm wave length with 1mm amplitude

2.5 mm wave length with 0.3 mm amplitude

Features

Edge sensor, High voltage pre-clearing device, Static charge and discharge devices and Pin hole counters



The critical tests we do

Test
Film thickness by Measurement
Film thickness by Weight
Roll hardness
Physical defects
Adhesion
Resistance measurement
% metal composition
Shrinkage characteristics
Insulation faults and Breakdown
Re-reeling & Pin hole count
Ageing and Special tests



How we deliver

Equal number of rolls with left and right margin are stacked using plastic foam for the protection on the metal reinforced side. These are packed in aluminium foil laminated opaque bags. After including desiccant packets inside, the bags are vacuum sealed. The bags are then packed in an inner and an outer carton made of tough corrugated board to ensure safe delivery and storage.

Ordering data you should provide

- Thickness
- Slit width
- Resistance
- Free margin
- Roll ID / OD
- Quantity

How should you handle

- All types of metallized films shall be stored in the original MAM's packing until use. The temperature and humidity shall be upto 35°C and less than 75% RH respectively.
- MAM strongly recommends handling of the metallized film only in controlled atmosphere of 22°C \pm 2°C and RH 50% \pm 5%.