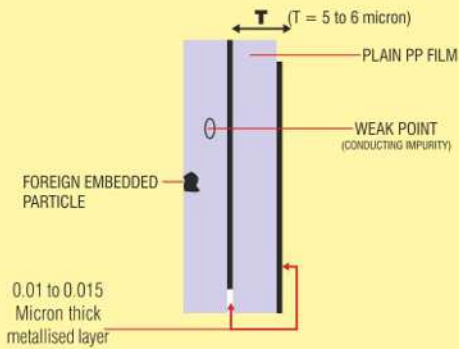


# SH - MPP DESIGN

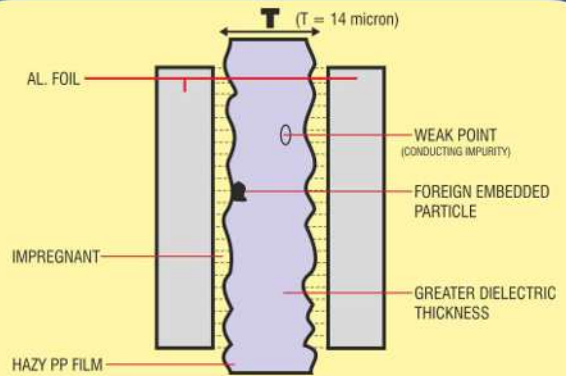


Thinner Layer of dielectric is ineffective thus, electrically weak construction



Low cost and short life Capacitors

# FILM + FOIL DESIGN



Impregnated Thicker layer of dielectric is effective & electrically robust construction



High cost but long life Capacitors



**मालदे**

Long Life Design  
**FILM + FOIL**

SINCE 1975

Note: Get technical paper if your customer requires

**MORE T**  
**MATERIAL**  
**COST**  
**LIFE**  
 As  $C \propto \frac{1}{T}$

Then why Single Layer Dielectric design is manufactured in our country? Because  $C \propto \frac{1}{T}$ . If dielectric thickness (T) reduces, conducting area (A) required is less. Hence, material consumption and cost of production reduces proportionate to  $(T)^2$  but at the cost of quality and working life.

**FILM + FOIL**  
**LONG LIFE DESIGN**



### SH - MPP

1. It consists of single layer of dielectric between two metallising.
2. The dielectric thickness (T) is generally from 5 micron to 6 micron.
3. The SH-MPP and SH - Double Metallised paper designs come under this category.
4. As we go with thinner plastic, pin holes & weak spots increase. Hence, more of self healing takes place generating hydrogen gas.
5. 5 to 6 micron thick layer of unimpregnated PP film contains lot of pin holes & weak spots. Hence, electrically weak construction.
6. This is high dielectric stress design.
7. The raw material consumption is between 8% to 15%.
8. Initiation of partial discharges takes place at low voltage and it continues for longer time.
9. It cannot bear transients.
10. Not suitable for our ambient temperature & voltage supply full of voltage spikes.
11. This is a cheaper design & it provides Short working life power capacitors.

### FILM + FOIL

1. It consists of single layer of dielectric between two aluminium foils.
2. The dielectric thickness (T) is 14 micron.
3. It includes two designs i.e.
  - I) FILM + FOIL Design
  - II) Two layer FILM + FOIL Design.
4. With thicker layer of PP film, pinholes & weak spots reduce. After impregnation, PP film swells by about 4 to 5% which closes the pin holes.
5. 14 micron thick layer of oil impregnated PP film grants electrically robust construction and provides very long working life.
6. The dielectric stress in this design is low.
7. The raw material consumption is between 80% to 100% (as T is more).
8. Initiation of partial discharges takes place at very high voltage and it gets extinguished quickly if impregnant is SAS - 60E Oil premixed with 0.7% epoxide.
9. It can bear transients of reasonable amplitude.
10. Suitable for our ambient temperature & voltage spikes in our supply system.
11. This is a costly design but it provides Long working life power capacitors.

**THE FILM + FOIL DESIGN IMPREGNATED WITH SAS - 60E OIL PREMIXED WITH 0.7% EPOXIDE PROVIDES DEPENDABLE AND LONG WORKING LIFE POWER CAPACITORS.**

If you feel that we are providing Good Information, then please send the Name, Contact Number & Address of Electrical Consultants / Contractor / Panel Builder

Given for information upto our best of knowledge without any guarantee as regards either for mistake or omission



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25 KVAR x 4 Nos. in Bank form