METALLISED PLASTIC FILM VS OIL IMPREGNATED PAPER & FOIL CAPACITORS – TECHNOLOGY DIFFERENCES

Plastic film capacitor self-healing clearances showing aluminium electrode evaporated around dielectric breakdown area leaving good capacitor. Electrode is thin enough to see through.

Oil impregnated paper/foil capacitor section showing permanent dielectric breakdown – foil is too thick to evaporate away.

Oil impregnated paper/foil capacitor construction showing alternate layers of tissue paper and foil. Foil tabs will be brought in from sides to connect to foil electrodes.

Plastic film capacitor construction showing two interleaved plastic films with aluminium metallisation. In this example metallisation has a centre insulation pattern on upper film and two edge insulation patterns on lower film producing a series capacitor for reliable use on ac supplies. Typical film thickness 8μ – 12μ with 0.01μ metallisation thickness.

Single metal foil as part of paper/foil capacitor construction. Foil usually Aluminium and 5μ or 6μ thick.

Single layer of tissue paper as part of paper/foil capacitor construction. Several layers of tissue usually used together, each typically 5μ-6μ thick.