

## Non Flammable Materials

ITELCOND capacitors are manufactured with raw materials that meet UL specifications. This is shown in figures 21 and 22.

### Raw Materials for Screw Terminal

Component	Material	UL rating
Cover / deck	Thermosetting	V0
Plastic sleeve	PVC	V0
Bottom insulating disk	PVC	V0
Plastic washers	Thermoplastic	V0
Hex nut	Thermoplastic	V0

Figure 21

### Raw Materials for Solder Pin Types

Component	Material	UL rating
Cover	Rubber-Bakelite	HB
Plastic sleeve	PVC	V0
Bottom insulating disk	PVC	V0

Figure 22

## Precautions

When using aluminium electrolytic capacitors a number of precautions must be taken:

- Operating temperature, ripple current and working voltage must be within the specified limits.
- Do not exceed 1.5V reverse voltage.
- Do not apply an AC only voltage. Any AC voltage must be superimposed onto a DC voltage that is of a greater value than the AC voltage swing, so to avoid any reverse voltage conditions.
- The DC voltage plus AC component cannot exceed the working voltage of the capacitor.
- Capacitors used in areas where harmful gases are present may undergo a reduced lifetime due to diffusion through the sealing gasket into the inside of the capacitor, causing damage.
- When a capacitor is used in a highly dusty area check that the level of dust powders on the top of the capacitor does not reach the terminals to avoid possible short circuit.
- Moisture or salt spray can penetrate into the capacitor and cause short circuit.
  
- When mounting snap in capacitor with a solder iron, the hot tip cannot come into contact with the can, deck or insulating sleeve.
- When units are mounted in series – parallel combinations use homogeneous date codes.
- Take care when handling capacitors. Any physical damage could render the capacitor bad and it should not be used,
- Capacitors should not be stored under direct sun light.
- Be aware of the risk posed by dielectric absorption.
- When a capacitor is operated at a low voltage for a prolonged time and is then operated at a higher voltage an increase in temperature must be expected.
- When a snap in capacitor is fixed to the printed circuit board by means of a fixing material be sure that the fixing compound does not contain chloride or chemicals that can deliver chlorine.
- Cleaning the printed circuit board must be achieved with non-hazardous chemicals.





- A hazardous voltage, especially on very high capacitance units, is present for up to 60 minutes after removal of power.
- Do not use capacitors having a standard design in circuits where the charge and discharge cycles have a high repetition rate; specific capacitors can be designed for this application.
- When the safety vent operates a gas at high temperature is emitted: the gas may contain electrolyte that could damage the printed circuit board or connecting bars if not properly insulated from chemical attack.
- When a capacitor in bank fails replace all the capacitors: do not replace the failed capacitor only.

