



标题导读：① UL 746C 材料参数详解

## UL 746C 材料参数详解

Acronym	Name/ units	PLC Or Units	What does it mean
CTI	Comparative Tracking Index- Volts	5-0	0- 100 Volts= 5 >600 Volts =0 This parameter indicates the susceptibility of the material to tracking (making a carbon track, which is conductive). It measures the voltage required to make a permanent conductive carbon path between 2 conductors with an application of electrolyte solution.
HWI	Hot wire ignition- Seconds	5-0	0-7 seconds=5 >120 seconds=0 This parameter indicates the resistance to ignition from a heat source – electrical heater wire.
GWEPT	Glow wire end product test-	-	Pass or fail test, As determined by indication material (tissue paper), or flames and glowing of material stop within 30 seconds,(done at 650 or 750 C, depends on product portability and if attended)
GWIT	Glow wire ignition temperature	°C	Maximum temperature of glow wire which does not ignite 3 samples of the material + 25 °C.
HAI	High-current arc ignition – The number of arcs needed to cause ignition (NA)	4-0	0-15 arcs= 4 >120 arcs= 0 This parameter indicated the resistance to ignition from arcing electrical source or parts.
HVTR	High Voltage Tracking Rate Mm/minute	4-0	>150 mm/min= 4 0-10 mm/min= 0 This parameter measures the rate at which a conducting path can be produced on the surface of the material.This will determine the ability of a material to withstand repeated HV arcing, such as is possible in HV power supplies.

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**立创检测·广州公司**

地址：广东省广州市天河区珠江新城花城大道 7 号聚龙阁 2704  
电话：+86-20-3873 1822  
传真：+86-20-3873 1966  
邮编：510140

**立创检测·中山检测中心**

地址：广东省中山市小榄镇广源路科技创业中心立创检测大楼  
电话：+86-760-2283 3366  
传真：+86-760-2283 3399  
邮编：528415

**立创检测·东莞检测中心**

地址：广东省东莞市松山湖科技九路 1 号  
电话：+86-769-2662 0220  
传真：+86-769-2662 0330  
邮编：52300

RTI	Relative Temperature index-electrical RTI – Elec	°C	Temperature above which the long term electrical properties of a material may not be certain.
RTI	Relative temperature index-mechanical impact RTI- Imp	°C	The temperature for a material above which the long-term mechanical impact strength may not be certain.
RTI	Relative temperature index-tensile strength RTI-Str	°C	The temperature above which the long term tensile strength (no impact) of a material may not be certain.
FTI  GTI	Functional Use temperature index And  Generic Use temperature index	°C	Temperature based on appliance type. Temperature based on the type of material based on historic knowledge. Also see: excursion beyond the maximum use temperature.CI. 35-40 of UL 746C.
IEC-BP	Ball pressure test- per IEC 60335-1.	-	Indicates the ability of the enclosure not to distort under elevated temperatures, as seen in actual use.
F1	Special use	-	May be suitable for outdoor use (but only for these factors). Indicates tested for exposure to UV light and for water exposure and immersion
F2	Special use	-	May be suitable for special condition usage. Indicates tested for one or more of the above properties.
-	Distortion under load	-	Ball pressure test of 746A, CI. 31 Or Mold stress relief test in end product.  Similar to the IEC-BP- indicates the ability of the material to not deform under conditions of use.

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传真：+86-769-2662 0330  
邮编：52300