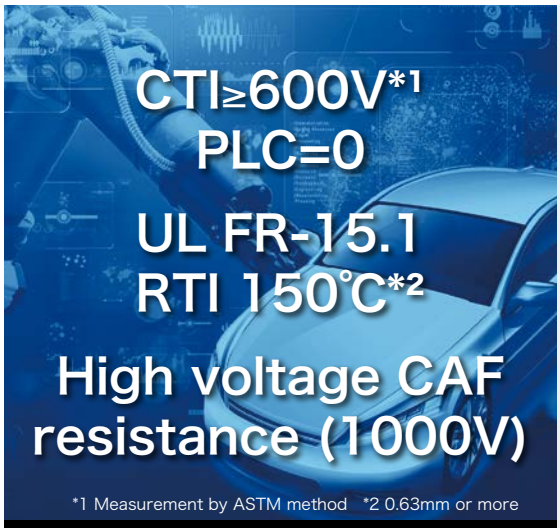
Panasonic INDUSTRY



Applications

Automotive/Industry

On Board Charger, DC/DC Converter, Inverter, In-Wheel Motor.
EV Charging Stand, HV Control Unit, PV Module.

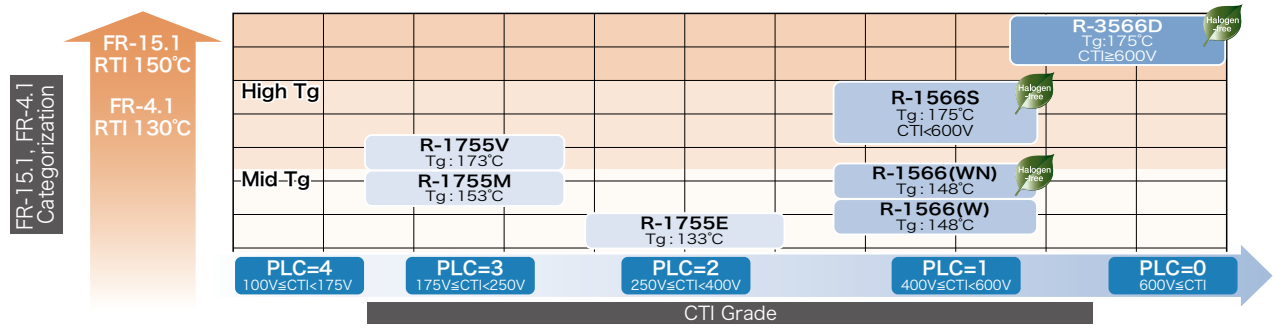
Halogen-free

Laminate **R-3566D** Prepreg **R-3551D**

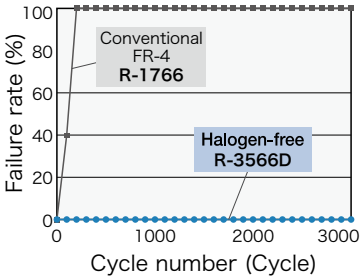
High CTI, High RTI Halogen-free multi-layer circuit board materials

Supports high heat resistance and high withstand voltage required for xEV and industrial devices.
Support in reduction of PCB board size due to reduced creepage distances by excellent tracking resistance (PLC=0).
Halogen-free material reducing environmental impact.

Line-up



Through-hole reliability

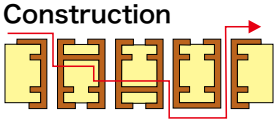


Condition

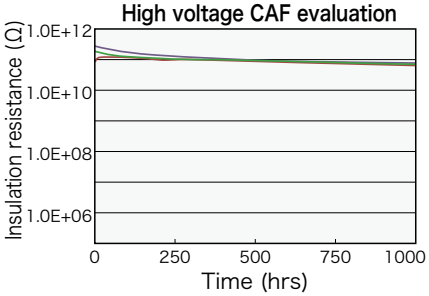
Cycle condition	-40℃ (15min) ⇔	160℃ (15min)

*Failure is over 10% changes of resistance
*Pretreatment: 260℃ Peak reflow x 3

Construction



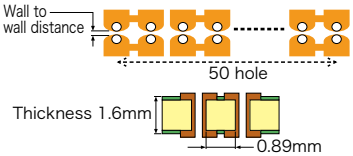
Insulation reliability



Condition

Pretreatment	260℃ Peak reflow x 3 times
Condition	85℃, 85%RH, DC 1000V
Through-hole wall to wall distance	0.89mm

TV Design



General properties

Item		Test method	Condition	Unit	Halogen-free R-3566D	Halogen-free R-1566(W)
Glass transition temp.(Tg)		DSC	A	℃	175	148
		TMA			170	145
Thermal decomposition temp.(Td)		TGA	A	℃	355	350
T288(with copper)		IPC-TM-650 2.4.24.1	A	min	10	3
CTE z-axis	α1/α2	IPC-TM-650 2.4.24	A	ppm/℃	40 / 180	40 / 180
RTI* / PLC*		UL	C-48/23/50	-	150 / 0	130 / 1
Peel strength	1oz(35μm)	IPC-TM-650 2.4.8	A	kN/m	1.6	1.8
Flammability		UL	C-48/23/50	-	94V-0	94V-0

The sample thickness is 0.8mm.
* The sample thickness is 1.6mm.

Our Halogen-free materials are based on JPCA-ES-01-2003 standard and others.
The above data are typical values and not guaranteed values.

industrial.panasonic.com/ww/electronic-materials
panasonic R-3566D

Panasonic Industry Co., Ltd. Electronic Materials Business Division

Please see our website for Notes before you use.