ZVBELZV S.L.
CIRCUITOS IMPRESOS - PRINTED CIRCUIT BOARDS

Materials commonly used for Single Layered PCBs

Item	Units	IT-140TC	IGAV FR95	AlCuP G	Duraver E-Cu 104	KB-6160
Manufacturer	-	ITEQ	Aismalibar	Aismalibar	Isola	KingBoard
Material	-	FR-4	FR-4	SMI	FR-4	FR-4
Volume Resistivity After moisture resistance At elevated temperature E-24/125	MΩ	 $1,0 \times 10^{4}$ $1,0 \times 10^{3}$	 $1,0 \times 10^{7}$ $1,0 \times 10^{7}$	$1,0 \times 10^{4}$	 $8,0 \times 10^{8}$ $8,0 \times 10^{6}$	$1,0 \times 10^{8}$
Surface Resistivity After moisture resistance At elevated temperature E-24/125	MΩ	 $1,0 \times 10^{4}$ $1,0 \times 10^{3}$	 $1,0 \times 10^{6}$ $1,0 \times 10^{5}$	$1,0 \times 10^{5}$	 $4,0 \times 10^{6}$ $7,0 \times 10^{4}$	$1,0 \times 10^{6}$
Moisture Absorption	%	< 0.8	0,19	-	0,16	0,21
Dielectric Breakdown	kV	40	45	-	45	-
Permitivity @ 1 MHz	-	4,7	4,8	-	4,6 - 4,9	-
Loss Tangent @ 1 MHz	-	0,017	0,057	-	0,019	0,022
Flexural Strength Length direction Cross direction	N/mm^2	 415 345	 550 450	-	 600 480	565
Flexural Strength at Elevated Temperature	N/mm2	-	-	-	-	-
Arc Resistance	sg	60	120	-	-	125
Thermal Stress for 10 sg at 288ºC Unetched Etched	-	 Conforme Conforme	60 sg	-	 ≥ 10 sg ≥ 10 sg	180 sg
Electric Strength	kV/mm	-	-	-	-	-
Time to blister @ 288ºC floating on solder	sg	-	-	> 60	-	-
Copper Peel Strength After heat shock 20 seconds @ 288ºC	N/mm	-	-	> 1,8	-	-
Dielectric breakdown voltage	kV	-	-	5	-	-
Thermal conductivity (dielectric layer)	w/m x K	-	-	1,3	-	-
Thermal impedance (dielectric) x 10^{-3}	K x m^2/w	-	-	0,096	-	-
Relative permitivity, 10 kHz	-	-	-	4,5	-	-
Dissipation factor, 10 kHz		-	-	0,02	-	-
Capacitance	pF/cm^2	-	-	46	-	-
Flammability	-	V-0	V-0	V-0	V-0	V-0
Glass Transition Temperature	ºC	135	135	90	135	135
Decomposition Temperature	ºC	305	-	130	-	305
CAF Resistance	-	AABUS	-	-	-	-
Comparative Tracking Index (CTI)	Volts	Class 3 (179 - 249)	Class 3 (179 - 249)	> 550	Class 3 (179 - 249)	Class 3 (179 - 249)

REMARKS

Information according to manufacturer´s Technical Data Sheets