MSC-66 Standard FR-4

- Fulfils IPC-4101 B
- RoHS compliant
- AOI compatible and UV blocking
- Excellent dimensional stability
- Excellent process ability
- Standard thickness: 0,05 – 3,2 mm
- Copper cladding: 12 µm, 18 µm, 35 µm, 70 µm, 105 µm
- Single side, double side, unclad
- Available sheet sizes: 920 * 1220 mm, 1020 * 1220 mm, 1070 * 1220 mm
- Cut to size according customer request
- CTI 175V / 300V / 600V available

Properties (laminate 1.5 mm 35/00)	Unit	Test Method IPC-TM-650	Specification	Typical Value
Thickness	mm	3.8.4.2.4	± 0.075	1.46 …1.53
Moisture absorption	%	2.6.2.1	≤ 0.8	0.15
Copper Foil Area Weight	g/m^2	2.2.12	305 ± 30.5	285
Peel Strength as received	N/mm	2.4.8	≥ 1.43	1.8
Peel Strength after thermal stress	N/mm	2.4.8	≥ 1.43	1.8
Flexural Strength (Warp /Fill)	N/mm^2	2.4.4	≥ 415 / ≥ 345	560 / 420
Dimensional Stability	ppm	2.4.39	± 300	153 / 107
Flammability	Class	3.10.1.1	V-0	V-0
Glass Transition Temperature T_g	℃	2.4.25	≥ 130	135
Thermal stress Float @ 288 ℃ unetched	s	2.4.13.1	≥ 10	no delamination
Thermal Resistance (T260 / T288)	min	TMA	NA	15 / 2
Comparative Tracking Index (CTI)	V	IEC-112	≥ 175	200
Surface Resistance	MΩ	2.5.17.1	$\geq 1.0*10^4$	$2.0*10^6$
Volume Resistance	MΩ*cm	2.5.17.1	$\geq 1.0*10^6$	$5.0*10^8$
Loss Tangent @ 1 MHz	tan δ	2.5.5.3	≤ 0.035	0.032
Dielectric Constant @ 1 MHz	ε_r	2.5.5.3	≤ 5.4	4.5
Arc Resistance	s	2.5.1	≥ 60	120
z-axis expansion (≤ Tg / > Tg)	ppm/℃	2.4.24	NA	50 / 285

MSC-POLYMER AG ● D-35460 Staufenberg ● Tel. ++49 (0) 6406 / 914 90 ● Fax ++49 (0) 6406 / 6782
www.msc-polymer.com

Created on 09.04.2010 - Last change on 09.04.2010