



**QMTS2.E101749**

**Polymeric Materials - Filament-wound Tubing, Industrial Laminates, Vulcanized Fiber, and Materials for Use in Fabricating Recognized Printed Wiring Boards - Component**

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See General Information for Polymeric Materials - Filament-wound Tubing, Industrial Laminates, Vulcanized Fiber, and Materials for Use in Fabricating Recognized Printed Wiring Boards - Component

PANASONIC ELECTRIC WORKS ELECTRONIC MATERIALS (EUROPE) GMBH  
 ENNSHAFENSTR 30  
 4470 ENNS, AUSTRIA

E101749

**Industrial laminates:**

Mtl Dsg	ANSI Type	Color	Build up	Flame Class	R.T.I.		H			Meets 746E DSR	
			Min Thk (mm)		Elec (°C)	Mech (°C)	H W I	H A I	V T R		C T I
Industrial laminates, furnished as sheets, rods or tubes.											
MC-100 EX	FR-4	NC	0.18	V-0	120	120	0	3	3	-	-
			0.25	V-0	120	120	0	2	3	-	-
			0.38	V-0	130	130	0	2	3	-	Yes
			0.64	V-0	130	140	0	2	0	-	Yes
			1.40	V-0	130	140	0	2	0	3	Yes
MC-100 MS	FR-4	NC	0.25	V-0	120	120	0	2	3	-	-
			0.38	V-0	130	130	0	2	3	3	-

**Ultrathin build ups:**

Build Up					Laminate			Prepreg		
Mtl Dsg	ANSI Type	Min Thk (mm)	TI Elec	TI Mech	Mtl Dsg	Thk (mic)	TI Elec	Mtl Dsg	Thk (mic)	TI Elec
Ultrathin industrial laminates and bonding layers, furnished in sheet form, for use in multilayer printed wiring boards where the thickness is built up to the minimum specified.										
MC-100 EX	FR-4	0.38	130	130	MC-100 MS	50	90	MC-Rheopreg	50	90
		0.64	130	130	MC-100 MS	50	90	MC-Rheopreg	50	90
		0.64	130	130	MC-100 MS	100	120	MC-Rheopreg	100	120

**Metal clad industrial laminates:**

Bld up	Clad Cond Thk	Max	Max	Solder Lts

Metal Clad Dsg	Laminate Dsg	Pre-preg Dsg	ANSI Type	Min Thk (mm)	Min Ext (mic)	Max Ext (mic)	Max Int (mic)	Area Dia (mm)	Flame Class	Oper Temp (°C)	Temp (°C)	Time (sec)
<b>Metal clad multilayer package (mass laminate) with internal circuitry and solid copper on outside surfaces, furnished as sheets.</b>												
<b>MC-Mass-Lam</b>												
	MC 100 ML	-	FR-4	0.38	5	117	-	50.8	V-0	130	288	20
<b>Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both sides, furnished as sheets.</b>												
<b>MC-100 MS</b>												
	MC-100 EX	MC-Rheopreg	FR-4	0.38	4.3	105	-	50.8	V-0	130	288	20
<b>Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets.</b>												
<b>MC-100 MS</b>												
	MC-100 EX	-	FR-4	0.38	4.3	105	-	50.8	V-0	130	288	20

Marking: Company name and material designation on container or wrapper.

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