Underwriters Laboratories Inc.®

QMTS2.E109769

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

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

GUANGDONG SHENGYI SCI TECH CO LTD E109769
WANJIANG INDUSTRIAL DEVELOPMENT ZONE
DONGGUAN
GUANGDONG 523050, CHINA

Mtl Dsg	Col	ANSI Type	Min Thk		TI		HWI	UL94 Flame Class	HAI	HVTR	D-495	CTI	Meets UL746E DSR
			In.	(mm)	Elec	Mech							
Industrial laminates, furnished in sheet, rod or tube form.													
S1130	NC	FR-4	0.007	(0.18)	130	130	0	V-0	0	6	—	—	Yes
			0.013	(0.33)	130	130	0	V-0	0	5	—	—	Yes
			0.025	(0.63)	130	140	0	V-0	0	5	—	—	Yes
			0.055	(1.40)	130	140	0	V-0	0	4	—	0	Yes
S1139	NC	—	0.030	(0.75)	130	130	—	V-0	—	—	—	—	—
S1155	NC	FR-4	0.025	(0.63)	130	140	0	V-0	3	4	—	—	—
			0.062	(1.57)	130	140	0	V-0	2	4	3	3	—
S1170	NC	FR-4	0.015	(0.38)	130	140	0	V-0	0	4	—	—	Yes
			0.062	(1.57)	130	140	0	V-0	0	4	3	3	Yes
S2130	NC	CEM-3	0.025	(0.63)	130	140	1	V-0	0	5	—	—	—
			0.055	(1.40)	130	140	1	V-0	0	5	—	3	—
S2155	NC	CEM-3	0.025	(0.63)	130	140	3	V-0	0	4	—	—	Yes

			0.055	(1.40)	130	140	1	V-0	0	4	2	0	Yes
S1041	NC	FR-4	0.015	(0.38)	130	130	3	V-0	0	0	7	—	Yes
S1141			0.025	(0.63)	130	140	3	V-0	0	0	7	3	Yes
			0.055	(1.40)	130	140	3	V-0	0	0	7	3	Yes
S1141 150	NC	FR-4	0.025	(0.63)	130	140	3	V-0	0	0	7	3	—
			0.055	(1.40)	130	140	3	V-0	0	0	7	3	—
S1141 170	NC	FR-4	0.025	(0.63)	130	140	3	V-0	0	0	7	3	—
			0.055	(1.40)	130	140	3	V-0	0	0	7	3	—
S1141 180	NC	FR-4	0.025	(0.63)	130	140	3	V-0	0	0	5	3	—
S1165	NC	—	0.015	(0.38)	130	140	3	V-0	0	0	—	3	—
			0.055	(1.40)	130	140	3	V-0	0	0	5	3	—
			0.060	(1.50)	130	140	3	V-0	0	0	—	3	—
S1600	NC	FR-4	0.025	(0.63)	130	140	0	V-0	3	4	—	—	Yes
			0.062	(1.57)	130	140	0	V-0	2	4	3	0	Yes
S2131	NC	CEM-3	0.025	(0.63)	130	140	0	V-0	0	4	—	—	Yes
			0.055	(1.40)	130	140	0	V-0	0	4	—	3	Yes
S2132	NC	CEM-3	0.025	(0.63)	130	140	3	V-0	0	4	—	—	Yes
			0.055	(1.40)	130	140	1	V-0	0	4	2	3	Yes
S2136	NC	CEM-3	0.025	(0.63)	130	140	0	V-0	0	4	—	—	Yes
			0.055	(1.40)	130	140	0	V-0	0	4	—	3	Yes
S2600	NC	CEM-3	0.025	(0.63)	130	140	3	V-0	0	4	—	—	Yes
			0.055	(1.40)	130	140	1	V-0	0	4	2	0	Yes
S3110	NC	CEM-1	0.025	(0.63)	130	140	3	V-0	0	4	—	—	Yes
			0.055	(1.40)	130	140	1	V-0	0	4	2	3	Yes
S3116	NC	CEM-1	0.025	(0.63)	130	140	3	V-0	0	4	—	—	Yes

			0.055	(1.40)	130	140	1	V-0	0	4	2	0	Yes
S3155	NC	—	0.024	(0.59)	50	50	—	V-0	—	—	—	—	—
			0.059	(1.50)	50	50	—	V-0	—	—	—	—	—

Mtl Dsg		ANSI Grade	Col	Min Thk		TI	
Lam	Prepreg			In.	(mm)	Elec	Mech
Ultrathin industrial laminates, furnished in sheet form, for use in multilayer printed wiring boards where the thickness is built up to at least 0.015 (0.38 mm).							
S1130	S0101	FR-4	N	0.002	(0.05)	90	—
		FR-4	N	0.0063	(0.16)	120	—
S1139	S0501	—	NC	0.002	(0.05)	90	—
		—	NC	0.0063	(0.16)	120	—
S1141	S0401	FR-4	NC	0.002	(0.05)	90	—
		FR-4	NC	0.0063	(0.16)	120	—
S1141 150	S0401	FR-4	NC	0.002	-0.05	90	—
		FR-4	NC	0.0063	-0.16	120	—
S1141 170	S0401	FR-4	NC	0.002	(0.05)	90	—
		FR-4	NC	0.0063	(0.16)	120	—
S1141 180	S0401	FR-4	NC	0.002	0.05)	90	—
		FR-4	NC	0.0063	(0.16)	120	—
S1155	S0155	FR-4	NC	0.002	(0.05)	90	—
		FR-4	N	0.0063	(0.16)	120	—
S1165	S0165	FR-4	NC	0.002	(0.16)	120	—
		FR-4	NC	0.0063	(0.16)	120	
S1170	S0701	FR-4	NC	0.002	(0.05)	90	—
		FR-4	NC	0.0063	(0.16)	120	—

	Base Mtl		Clad Cond Thk				Max					
Clad		Min					Area		Sold Lts		UL94	M
Mtl Dsg	ANSI Type	Thk In.	Thk (mm)	Min Mils	Min (Mics)	Max Mils	Max (Mics)	Dia In.	Dia (mm)	Temp C	Time Sec	Flame Class	O Te
Metal clad industrial laminates for use in printed wiring boards, furnished in the form of sheets, v copper cladding on one or both sides.													

S1130	FR-4	0.009	(0.22)	0.48	(12)	2.7	(68)	2.0	(50.8)	288	60	V-0	
		0.015	(0.38)	0.65	(17)	2.7	(68)	2.0	(50.8)	288	60	V-0	
		0.025	(0.63)	0.65	(17)	2.7	(68)	2.0	(50.8)	291	60	V-0	
		0.055	(1.40)	0.65	(17)	2.7	(68)	2.0	(50.8)	291	60	V-0	
S1139	—	0.030	(0.75)	0.63	(16)	2.7	(68)	2.0	(50.8)	274	20	V-0	
S1141	FR-4	0.015	(0.38)	0.34	(8.5)	2.7	(68)	2.0	50.8	288	20	V-0	
S1141 150	FR-4	0.025	(0.63)	0.34	-8.5	2.7	(68)	2.0	50.8	288	20	V-0	
S1141 170													
S1141 180													
S1155	FR-4	0.025	(0.63)	0.36	(9.0)	4.2	(105)	2.0	(50.8)	288	20	V-0	
S1165**	—	0.015	(0.38)	0.65	(17)	2.7	(68)	2.0	(50.8)	288	20	V-0	
		0.060	(1.5)					2.0	(50.8)	288	20	V-1	
S1170	FR-4	0.015	(0.38)	0.65	(17)	2.7	(68)	2.0	(50.8)	288	40	V-0	
S1600	FR-4	0.025	(0.63)	0.65	(17)	2.7	(68)	2.0	(50.8)	288	20	V-0	
S2130	CEM-3	0.025	(0.63)	0.65	(17)	2.7	(68)	2.0	(50.8)	274	20	V-0	
S2131	CEM-3	0.025	(0.63)	0.34	(8.5)	2.7	(68)	2.0	(50.8)	260	20	V-0	
S2132	CEM-3	0.025	(0.63)	0.65	(17)	2.7	(68)	2.0	(50.8)	260	20	V-0	
S2136	CEM-3	0.025	(0.63)	0.34	(8.5)	2.7	(68)	2.0	(50.8)	260	20	V-0	
S2132	CEM-3	0.025	(0.63)	0.65	(17)	2.7	(68)	2.0	(50.8)	260	20	V-0	
S2155	CEM-3	0.025	(0.63)	0.36	(9.0)	4.2	(105)	2.0	(50.8)	274	20	V-0	
S2600	CEM-3	0.025	(0.63)	0.65	(17)	2.7	(68)	2.0	(50.8)	274	20	V-0	
S3110	CEM-1	0.025	(0.63)	0.65	(17)	2.7	(68)	2.0	(50.8)	274	20	V-0	
S3116	CEM-1	0.025	(0.63)	0.65	(17)	2.7	(68)	2.0	(50.8)	274	20	V-0	

S3155	—	0.025	(0.6)	0.69	(18)	2.7	(68)	1.0	(25.4)	274	20	V-0	
Metal clad multilayer package with internal circuitry and solid copper on outside surfaces.													
S1130	FR-4	0.009	(0.22)	0.48	(12)	2.7	(68)	2.0	(50.8)	288	60	V-0	
S1139	—	0.030	(0.75)	0.63	(16)	2.7	(68)	2.0	(50.8)	274	20	V-0	
S1141	FR-4	0.015	(0.38)	0.34	(8.5)	2.7	(68)	2.0	(50.8)	288	20	V-0	
S1170	FR-4	0.015	(0.38)	0.65	(17)	2.7	(68)	2.0	(50.8)	288	40	V-0	
S2130	CEM-3	0.025	(0.63)	0.65	(17)	2.7	(68)	2.0	(50.8)	274	20	V-0	

Mtl Dsg Metal		**Min Thk**		**Clad Cond Thk**					**Max Area**	**Sold Lts**		**Max**	**U**
				Min		**Max**							
Clad Lam	**Prepreg**	**In. (mm)**	**ANSI Grade**	**Mils**	**(Mics)**	**Mils**	**(Mics)**	**In.**	**Diam (mm)**	**Temp C**	**Time Sec**	**Oper Temp**	**F C**
Ultrathin industrial laminates with copper on one or both sides, and prepegs for use in multilayer printed wiring boards where the thickness is built-up to (0.015 in.) (0.38 mm).													
S1130	S0101	0.002	FR-4	0.48	(12)	2.7	(68)	2.0	50.8	288	40	130	
		(0.05)											
S1141	S0401	0.002	FR-4	0.34	(8.5)	2.7	(68)	2.0	(50.8)	288	20	130	
		(0.05)											
S1141 150	S0401	0.002	FR-4	0.34	-8.5	2.7	(68)	2.0	(50.8)	288	20	130	
		(0.05)											
S1141 170	S0401	0.002	FR-4	0.34	(8.5)	2.7	(68)	2.0	(50.8)	288	20	130	
		(0.05)											
S1141 180	S0401	0.002	FR-4	0.34	(8.5)	2.7	(68)	2.0	(50.8)	288	20	130	
		(0.05)											
S1139	S0501	0.002	—	0.63	(16)	2.7	(68)	2.0	(50.8)	274	20	130	
		(0.05)											
S1155	S0155	0.002	FR-4	0.36	(9.0)	4.2	(105)	2.0	(50.8)	288	20	130	
		(0.05)											
S1165	S0165	0.002	—	0.34	(8.5)	2.7	(68)	2.0	(50.8)	288	20	130	

		(0.05)											
S1170	S0701	0.002	FR-4	0.65	(17)	2.7	(68)	2.0	(50.8)	288	40	130	
		(0.05)											

Mtl Dsg	ANSI Type	Col	Min Thk		UL94 Flame Class	TI		HWI	HAI	HVTR	CTI	Meets UL746E DSR
			In.	(mm)		Elec	Mech					
Epoxy High Density Interconnect Insulation for use in the fabricating of multilayer printed wiring boards.												
S6018	—	NC	.0015 (a)	(.04) (a)	V-0	90	90	0	0	—	—	Yes
	—	NC	.004 (a)	(.10) (a)	V-0	90	90	0	0	—	3	Yes

(a) - Flammability, HWI and HAI were performed on 0.15 inch (0.4mm) thick S6018 on .004 inch (.10mm) thick FR4 laminate. CTI was performed on .004 inch (.10mm) thick S6018 on .004 inch (.10mm) thick FR4 laminate.

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

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