UL Product iQ®

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

COMPANY

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E109769

Prepregs:

Mtl Dsg	ANSI Type	Color	Build up Min Thk (mm)	Flame Class	R.T.I. Elec (°C)	R.T.I. Mech (°C)	HWI	HAI	HVTR	CTI	Meets 746E Non-HAL	Meets 746E DSR
Epoxy Prepreg only furnished as sheets												
S0101 600	No ANSI	NC	0.20	V-0	90	90	-	-	-	-	-	-
			0.38	V-0	90	90	-	-	-	-	-	-
			0.80	V-0	90	90	-	-	-	-	-	-
			1.40	V-0	90	90	-	-	-	0	-	-
Epoxy Blend Prepreg only furnished as sheets												
SP120	No ANSI	NC	0.05	V-0	50	50	-	-	-	-	-	-
			0.20	V-0	50	50	-	-	-	-	-	-
PTFE without reinforcement Prepreg only furnished as sheets												
SG5300NB	No ANSI	NC	0.035	V-0	130	130	0	0	-	-	-	Yes
			0.10	V-0	130	130	0	0	-	-	-	Yes
			0.20	V-0	130	130	0	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.80	V-0	130	130	0	0	-	-	-	Yes
			1.60	V-0	130	130	0	0	-	0	-	Yes
Prepreg only furnished as sheets												
SP170G	No ANSI	NC	0.05	V-0	50	50	-	-	-	-	-	-
			0.40	V-0	50	50	-	-	-	-	-	-

			0.80	V-0	50	50	-	-	-	-	-	-
			1.60	V-0	50	50	-	-	-	3	-	-
SP170N	No ANSI	NC	0.05	V-0	50	50	-	-	-	-	-	-
			0.38	V-0	50	50	-	-	-	-	-	-
			0.80	V-0	50	50	-	-	-	-	-	-
			1.60	V-0	50	50	-	-	-	3	-	-
SP180M	No ANSI	NC	0.11	V-0	-	-	-	-	-	-	-	-
			0.15	V-0	-	-	-	-	-	-	-	-
			0.22	V-0	-	-	-	-	-	-	-	-
			0.38	V-0	-	-	-	-	-	-	-	-
			0.75	V-0	-	-	-	-	-	-	-	-
			1.50	V-0	-	-	-	-	-	-	-	-
Prepreg only												
SP225GN (Note 1)												
		NC	0.025	V-0	90	90	-	-	-	-	-	-
			0.10	V-0	90	90	-	-	-	-	-	-
			0.20	V-0	90	90	-	-	-	2	-	-

High density interconnect - build up materials:

		Core		Dielectric			R.T.I.					H			
Mtl Dsg	Color	Min Thk (mm)	Max Thk (mm)	Min Thk (mic)	Max Thk (mic)	Flame Class	Elec (°C)	Mech (°C)	H W I	H A I	V T R	C T I	Meets 746E Non-HAL	Meets 746E DSR
FR-4.0 core with Epoxy (EP) dielectric, High density interconnect - build up materials furnished as sheets														
S6015, S6015-1	NC	0.14	-	40	-	V-0	90	-	0	0	-	-	-	Yes
		0.14	-	-	100	V-0	120	120	1	0	-	3	-	Yes
S6018, S6018-1	NC	0.15	-	40	-	V-0	90	-	3	0	-	-	-	Yes
		0.15	-	-	100	V-0	120	120	3	0	-	4	-	Yes

High density interconnect - resin coated foils:

		Core		Dielectric			R.T.I.				H			
Mtl Dsg	Color	Min Thk (mm)	Max Thk (mm)	Min Thk (mic)	Max Thk (mic)	Flame Class	Elec (°C)	Mech (°C)	H W I	H A I	V T R	C T I	Meets 746E Non-HAL	Meets 746E DSR
FR-4.0 core with Epoxy (EP) dielectric, High density interconnect - resin coated foils furnished as sheets														
S6101	NC	0.38	-	50	100	V-0	90	-	-	-	-	2	-	-

Industrial laminates:

Mtl Dsg	ANSI Type	Color	Build up Min Thk (mm)	Flame Class	R.T.I. Elec (°C)	R.T.I. Mech (°C)	HWI	HAI	HVTR	CTI	Meets 746E Non-HAL	Meets 746E DSR
Copolymer Industrial laminates furnished as sheets												
AeroBond 350	No ANSI	NC	0.16	V-0	160	90	0	0	-	-	-	Yes
			0.50	V-0	160	130	0	0	-	-	-	Yes
			0.76	V-0	160	160	0	0	-	-	-	Yes
			1.52	V-0	170	170	0	0	-	0	-	Yes
AeroWave300X	No ANSI	NC	0.16	V-0	160	90	0	0	-	-	-	Yes
			0.50	V-0	160	130	0	0	-	-	-	Yes
			0.76	V-0	160	160	0	0	-	-	-	Yes
			1.52	V-0	170	170	0	0	-	0	-	Yes
LNB33C	No ANSI	NC	0.16	V-0	160	90	0	0	-	-	-	Yes
			0.50	V-0	160	130	0	0	-	-	-	Yes
			0.76	V-0	160	160	0	0	-	-	-	Yes
			1.52	V-0	170	170	0	0	-	0	-	Yes
S	No ANSI	NC	0.16	V-0	160	90	0	0	-	-	-	Yes
			0.50	V-0	160	130	0	0	-	-	-	Yes
			0.76	V-0	160	160	0	0	-	-	-	Yes
			1.52	V-0	170	170	0	0	-	0	-	Yes
S7135D	No ANSI	NC	0.16	V-0	160	90	0	0	-	-	-	Yes
			0.50	V-0	160	130	0	0	-	-	-	Yes
			0.76	V-0	160	160	0	0	-	-	-	Yes
			1.52	V-0	170	170	0	0	-	0	-	Yes
S7135D2	No ANSI	NC	0.16	V-0	160	90	0	0	-	-	-	Yes
			0.50	V-0	160	130	0	0	-	-	-	Yes
			0.76	V-0	160	160	0	0	-	-	-	Yes
			1.52	V-0	170	170	0	0	-	0	-	Yes
S7136D	No ANSI	NC	0.16	V-0	160	90	0	0	-	-	-	Yes
			0.50	V-0	160	130	0	0	-	-	-	Yes
			0.76	V-0	160	160	0	0	-	-	-	Yes
			1.52	V-0	170	170	0	0	-	0	-	Yes

Copolymer Industrial laminates furnished as sheets, rods or tubes												
S7136H	No ANSI	NC	0.38	V-0	150	140	0	0	-	-	-	Yes
			0.50	V-0	150	150	0	0	-	-	-	Yes
			0.80	V-0	150	150	0	0	-	-	-	Yes
			1.60	V-0	150	150	0	0	-	0	-	Yes
SU1402	No ANSI	NC	0.38	V-0	170	170	0	0	-	-	-	Yes
			0.50	V-0	170	170	0	0	-	-	-	Yes
			0.80	V-0	170	170	0	0	-	-	-	Yes
			1.60	V-0	180	170	0	0	-	0	-	Yes
Epoxy Industrial laminates furnished as sheets												
BLM1	No ANSI	BK	0.05	V-0	-	-	-	-	-	-	-	-
			0.10	V-0	-	-	-	-	-	-	-	-
			0.20	V-0	-	-	-	-	-	-	-	-
			0.38	V-0	-	-	-	-	-	-	-	-
			0.80	V-0	-	-	-	-	-	-	-	-
			1.60	V-0	-	-	-	-	-	-	-	-
S7735D2	No ANSI	NC	0.10	V-0	155	130	4	0	-	-	-	Yes
			0.20	V-0	160	160	0	0	-	-	-	Yes
			0.38	V-0	160	170	0	0	-	-	-	Yes
			0.63	V-0	160	200	0	0	-	-	-	Yes
			1.60	V-0	160	200	0	0	-	2	-	Yes
SI13UR	No ANSI	NC	0.03	V-0	90	90	0	3	-	-	-	Yes
			0.10	V-0	90	90	0	0	-	-	-	Yes
			0.20	V-0	90	90	0	0	-	-	-	Yes
			0.38	V-0	90	90	0	0	-	-	-	Yes
			0.63	V-0	90	90	0	0	-	-	-	Yes
			1.60	V-0	90	90	0	0	-	2	-	Yes
ST110G	No ANSI	NC	0.06	V-0	130	140	1	2	-	-	-	Yes
			0.10	V-0	160	150	1	0	-	-	-	Yes
			0.20	V-0	160	160	1	0	-	-	-	Yes
			0.38	V-0	160	160	1	0	-	-	-	Yes
			0.70	V-0	170	160	0	0	-	-	-	Yes
			1.60	V-0	170	160	0	0	-	0	-	Yes

ST115G	No ANSI	NC	0.06	V-0	130	140	1	2	-	-	-	Yes
			0.10	V-0	160	150	1	0	-	-	-	Yes
			0.20	V-0	160	160	1	0	-	-	-	Yes
			0.38	V-0	160	160	1	0	-	-	-	Yes
			0.70	V-0	170	160	0	0	-	-	-	Yes
			1.60	V-0	170	160	0	0	-	0	-	Yes
ST220P	No ANSI	NC	0.50	V-0	90	90	0	1	-	-	-	Yes
			0.63	V-0	90	90	0	1	-	-	-	Yes
			1.40	V-0	90	90	0	1	-	1	-	Yes
Epoxy Industrial laminates furnished as sheets or rolls												
SU1615	No ANSI	NC	0.05	V-0	90	100	5	0	-	-	-	-
			0.10	V-0	95	110	4	0	-	-	-	Yes
			0.20	V-0	110	120	4	0	-	-	-	Yes
			0.38	V-0	125	125	4	0	-	-	-	Yes
			0.63	V-0	140	125	0	0	-	-	-	Yes
			1.40	V-0	150	140	0	0	-	3	-	Yes
Epoxy (EP) Industrial laminates furnished as sheets or rolls												
Autolad5	No ANSI	NC	0.09	V-0	130	130	4	3	-	-	-	Yes
			0.20	V-0	130	130	2	2	-	-	-	Yes
			0.38	V-0	140	140	0	1	-	-	-	Yes
			0.75	V-0	150	150	0	1	-	-	-	Yes
			1.50	V-0	150	150	0	1	-	2	-	Yes
Epoxy (EP) Industrial laminates furnished as sheets, rods or tubes												
S1135, S7546	No ANSI	NC	0.05	V-0	-	-	-	-	-	-	-	-
			0.20	V-0	95	130	0	2	-	-	-	Yes
			0.38	V-0	105	130	0	1	-	-	-	Yes
			0.70	V-0	115	130	0	0	-	-	-	Yes
			1.50	V-0	130	140	0	0	-	2	-	Yes
S1155 600	No ANSI	NC	0.63	V-0	90	90	0	2	-	-	-	-
			1.40	V-0	90	90	0	1	-	0	-	Yes
S1155M	No ANSI	NC	0.03	V-0	125	110	0	3	-	-	Yes	Yes
			0.10	V-0	140	130	0	0	-	-	-	Yes
			0.20	V-0	150	140	0	0	-	-	-	Yes

			0.38	V-0	150	140	0	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	3	-	Yes
S3155G	No ANSI	NC	0.63	V-0	90	90	0	2	-	-	-	Yes
			1.40	V-0	90	90	0	1	-	1	-	Yes
S7242	No ANSI	BN	0.38	V-0	90	90	0	2	-	-	-	-
			0.63	V-0	90	90	-	-	-	-	-	-
			1.40	V-0	90	90	-	-	-	4	-	-
SB170G	No ANSI	NC	0.05	V-0	-	-	-	-	-	-	-	-
			0.20	V-0	95	130	0	2	-	-	-	Yes
			0.38	V-0	105	130	0	1	-	-	-	Yes
			0.70	V-0	115	130	0	0	-	-	-	Yes
			1.50	V-0	130	140	0	0	-	2	-	Yes
Epoxy Resin with filler Al(OH)3 Industrial laminates furnished as sheets												
S2600R	No ANSI	NC	0.63	V-0	90	90	0	2	-	-	-	Yes
			1.40	V-0	90	90	0	1	-	0	-	Yes
Epoxy blend Industrial laminates furnished as sheets												
S5W, SI455W	No ANSI	NC(WT)	0.20	HB	50	50	-	-	-	-	-	-
			0.38	HB	50	50	-	-	-	-	-	-
			0.63	HB	50	50	-	-	-	-	-	-
			1.40	HB	50	50	-	-	-	-	-	-
SE40, S7439, S7439HW, S7439C												
	No ANSI	NC	0.20	V-0	120	130	0	4	-	-	-	-
			0.38	V-0	160	160	0	2	-	-	-	Yes
			0.63	V-0	170	160	0	2	-	-	-	Yes
			1.40	V-0	180	170	0	1	-	3	-	Yes
SI07US	No ANSI	NC, BK	0.03	V-0	130	125	0	0	-	-	-	Yes
			0.10	V-0	140	140	0	0	-	-	-	Yes
			0.20	V-0	140	140	0	0	-	-	-	Yes
			0.38	V-0	160	150	0	0	-	-	-	Yes
			0.80	V-0	170	160	0	0	-	-	-	Yes
			1.60	V-0	170	170	0	0	-	2	-	Yes
SI10USR	No ANSI	NC, BK	0.03	V-0	130	125	0	0	-	-	-	Yes

			0.10	V-0	140	140	0	0	-	-	-	Yes
			0.20	V-0	140	140	0	0	-	-	-	Yes
			0.38	V-0	160	150	0	0	-	-	-	Yes
			0.80	V-0	170	160	0	0	-	-	-	Yes
			1.60	V-0	170	170	0	0	-	2	-	Yes
SI13U	No ANSI	NC, BK	0.03	V-0	130	125	0	0	-	-	-	Yes
			0.10	V-0	140	140	0	0	-	-	-	Yes
			0.20	V-0	140	140	0	0	-	-	-	Yes
			0.38	V-0	160	150	0	0	-	-	-	Yes
			0.80	V-0	170	160	0	0	-	-	-	Yes
			1.60	V-0	170	170	0	0	-	2	-	Yes
SI242D	No ANSI	NC	0.04	V-0	110	90	4	4	-	-	-	-
			0.20	V-0	130	105	3	2	-	-	-	Yes
			0.38	V-0	140	115	0	2	-	-	-	Yes
			0.71	V-0	150	155	0	1	-	-	-	Yes
			1.50	V-0	160	155	0	1	-	2	-	Yes
Epoxy blend Industrial laminates furnished as sheets or rolls												
SU1610(h)	No ANSI	NC(WT)	0.10	HB	50	50	-	-	-	-	-	-
Epoxy blend Industrial laminates furnished as sheets, rods or tubes												
SI10U(S)	No ANSI	NC	0.04	V-0	70	85	4	2	-	-	-	Yes
			0.10	V-0	70	90	4	2	-	-	-	Yes
			0.20	V-0	85	90	3	1	-	-	-	Yes
			0.38	V-0	90	90	3	1	-	-	-	Yes
			0.63	V-0	95	90	0	1	-	-	-	Yes
			1.60	V-0	120	105	0	0	-	1	-	Yes
SI246, SI246U	No ANSI	NC	0.04	V-0	70	85	4	2	-	-	-	Yes
			0.10	V-0	70	90	4	2	-	-	-	Yes
			0.20	V-0	85	90	3	1	-	-	-	Yes
			0.38	V-0	90	90	3	1	-	-	-	Yes
			0.63	V-0	95	90	0	1	-	-	-	Yes
			1.60	V-0	120	105	0	0	-	1	-	Yes
SU1304	No ANSI	NC	0.04	V-0	70	85	4	2	-	-	-	Yes
			0.10	V-0	70	90	4	2	-	-	-	Yes

			0.20	V-0	85	90	3	1	-	-	-	Yes
			0.38	V-0	90	90	3	1	-	-	-	Yes
			0.63	V-0	95	90	0	1	-	-	-	Yes
			1.60	V-0	120	105	0	0	-	1	-	Yes
Modified Polyphenylene ether Industrial laminates furnished as sheets												
S78	No ANSI	NC	0.04	V-0	95	80	0	2	-	-	-	Yes
			0.10	V-0	95	90	0	1	-	-	-	Yes
			0.20	V-0	100	105	0	1	-	-	-	Yes
			0.38	V-0	125	115	0	1	-	-	-	Yes
			0.80	V-0	125	115	0	1	-	-	-	Yes
			1.50	V-0	125	115	0	1	-	2	-	Yes
Modified Polyphenylene ether Industrial laminates furnished as sheets, rods or tubes												
mmWave	No ANSI	NC	0.38	V-0	130	115	0	0	-	-	-	Yes
			0.80	V-0	150	130	0	0	-	-	-	Yes
			1.50	V-0	150	130	0	0	-	3	-	Yes
S7338, S7335, Synamic 6, Synamic 6N												
	No ANSI	NC	0.80	V-0	150	130	0	0	-	-	-	Yes
			1.50	V-0	150	130	0	0	-	3	-	Yes
Synamic6(X)	No ANSI	NC	0.80	V-0	150	130	0	0	-	-	-	Yes
			1.50	V-0	150	130	0	0	-	3	-	Yes
PTFE Industrial laminates furnished as sheets												
SCGA-500 GF233	No ANSI	NC	0.25	V-0	130	130	3	0	-	-	-	Yes
			0.41	V-0	130	130	3	0	-	-	-	Yes
			0.75	V-0	130	130	0	0	-	-	-	Yes
			1.55	V-0	130	130	0	0	-	0	-	Yes
SCGA-500 GF255	No ANSI	NC	0.25	V-0	130	130	0	0	-	0	-	Yes
			0.41	V-0	130	130	0	0	-	0	-	Yes
			0.75	V-0	130	130	0	0	-	0	-	Yes
			1.55	V-0	130	130	0	0	-	0	-	Yes
SCGA-500 GF320	No ANSI	NC	0.25	V-0	130	130	0	0	-	0	-	Yes
			0.41	V-0	130	130	0	0	-	0	-	Yes
			0.75	V-0	130	130	0	0	-	0	-	Yes
			1.55	V-0	130	130	0	0	-	0	-	Yes

SG3300	No ANSI	NC	0.38	V-0	130	130	0	0	-	-	-	Yes
			0.80	V-0	130	130	0	0	-	-	-	Yes
			1.50	V-0	130	130	0	0	-	0	-	Yes
SG3300W2	No ANSI	NC	0.38	V-0	130	130	0	0	-	-	-	Yes
			0.80	V-0	130	130	0	0	-	-	-	Yes
			1.60	V-0	130	130	0	0	-	0	-	Yes
SG7350D	No ANSI	NC	0.127	V-0	130	130	0	0	-	-	-	Yes
			0.25	V-0	130	130	0	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.80	V-0	130	130	0	0	-	-	-	Yes
			1.60	V-0	130	130	0	0	-	0	-	Yes
SG7350D2	No ANSI	NC	0.127	V-0	130	130	0	0	-	-	-	Yes
			0.25	V-0	130	130	0	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.80	V-0	130	130	0	0	-	-	-	Yes
			1.50	V-0	130	130	0	0	-	0	-	Yes
PTFE Industrial laminates												
SG5300	No ANSI	NC	0.10	V-0	130	130	0	0	-	-	-	Yes
			0.20	V-0	130	130	0	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.80	V-0	130	130	0	0	-	-	-	Yes
			1.60	V-0	130	130	0	0	-	0	-	Yes
PTFE without reinforcement Industrial laminates furnished as sheets												
SG7300N, mmWave77												
	No ANSI	NC	0.127	V-0	130	130	4	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	130	0	0	-	-	-	Yes
			1.50	V-0	130	130	0	0	-	0	-	Yes
Polybutadiene/polystyrene copolymer Industrial laminates furnished as sheets, rods or tubes												
S7136	No ANSI	NC	0.16	V-0	50	50	0	2	-	-	-	Yes
			0.50	V-0	50	50	0	2	-	-	-	Yes
			0.80	V-0	50	50	0	2	-	-	-	Yes
			1.60	V-0	50	50	0	2	-	1	-	Yes

Polyimide Industrial laminates furnished as sheets												
SH260, SH260M	No ANSI	NC(WT)	0.08	HB	50	50	-	-	-	-	-	-
			0.20	HB	50	50	-	-	-	-	-	-
			0.38	HB	50	50	-	-	-	-	-	-
			0.63	HB	50	50	-	-	-	-	-	-
			1.40	HB	50	50	-	-	-	-	-	-
Polyimide blend Industrial laminates furnished as sheets												
S1220, S7643	No ANSI	NC	0.04	V-0	90	110	0	4	-	-	-	-
			0.20	V-0	105	120	0	3	-	-	-	Yes
			0.38	V-0	110	120	0	2	-	-	-	Yes
			0.63	V-0	120	120	0	1	-	-	-	Yes
			1.60	V-0	130	130	0	1	-	2	-	Yes
SI10NF	No ANSI	NC	0.04	V-0	90	110	0	4	-	-	-	-
			0.20	V-0	105	120	0	3	-	-	-	Yes
			0.38	V-0	110	120	0	2	-	-	-	Yes
			0.63	V-0	120	120	0	1	-	-	-	Yes
			1.60	V-0	130	130	0	1	-	2	-	Yes
SI64X, SI643, SI643U, SI643HU												
	No ANSI	NC	0.04	V-0	90	110	0	4	-	-	-	-
			0.20	V-0	105	120	0	3	-	-	-	Yes
			0.38	V-0	110	120	0	2	-	-	-	Yes
			0.63	V-0	120	120	0	1	-	-	-	Yes
			1.60	V-0	130	130	0	1	-	2	-	Yes
Polymer Blend Industrial laminates furnished as sheets												
Synamic8N	No ANSI	NC	0.05	V-0	95	115	1	0	-	-	-	Yes
			0.10	V-0	105	130	1	0	-	-	-	Yes
			0.20	V-0	125	140	1	0	-	-	-	Yes
			0.38	V-0	140	140	0	0	-	-	-	Yes
			0.80	V-0	140	140	0	0	-	-	-	Yes
			1.50	V-0	140	140	0	0	-	2	-	Yes
Synamic8NE	No ANSI	NC	0.05	V-0	95	115	1	0	-	-	-	Yes
			0.10	V-0	105	130	1	0	-	-	-	Yes
			0.20	V-0	125	140	1	0	-	-	-	Yes

			0.38	V-0	140	140	0	0	-	-	-	Yes
			0.80	V-0	140	140	0	0	-	-	-	Yes
			1.50	V-0	140	140	0	0	-	2	-	Yes
Polyphenylene Oxide Industrial laminates furnished as sheets, rods or tubes												
S7135	No ANSI	NC	0.16	V-0	65	90	2	3	-	-	-	Yes
			0.50	V-0	85	90	2	3	-	-	-	Yes
			0.80	V-0	95	90	0	2	-	-	-	Yes
			1.60	V-0	105	95	0	2	-	0	-	Yes
Industrial laminates furnished as sheets												
AeroWave 300	No ANSI	NC	0.04	V-0	95	80	0	2	-	-	-	Yes
			0.10	V-0	95	90	0	1	-	-	-	Yes
			0.20	V-0	100	105	0	1	-	-	-	Yes
			0.38	V-0	125	115	0	1	-	-	-	Yes
			0.80	V-0	125	115	0	1	-	-	-	Yes
			1.50	V-0	125	115	0	1	-	2	-	Yes
Aerowave350	No ANSI	NC	0.38	V-0	50	50	0	0	-	-	-	Yes
			0.80	V-0	50	50	0	0	-	-	-	Yes
			1.60	V-0	50	50	0	0	-	1	-	Yes
Autolad1G	FR-4.1	NC	0.03	V-0	130	120	4	3	-	-	Yes	Yes
			0.20	V-0	130	130	4	0	-	-	-	Yes
			0.38	V-0	130	130	1	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	3	-	Yes
Autolad2G	FR-15.1	NC	0.10	V-0	120	120	0	0	-	-	Yes	Yes
			0.20	V-0	120	120	0	0	-	-	-	Yes
			0.43	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	0	-	Yes
Autolad2GH	FR-15.1	NC	0.10	V-0	120	120	0	0	-	-	Yes	Yes
			0.20	V-0	120	120	0	0	-	-	-	Yes
			0.43	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	0	-	Yes

LS150GN	FR-4.1	NC	0.03	V-0	130	120	4	3	-	-	Yes	Yes
			0.20	V-0	130	130	4	0	-	-	-	Yes
			0.38	V-0	130	130	1	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	3	-	Yes
mmWave G	No ANSI	NC	0.20	V-0	130	140	2	0	-	-	Yes	Yes
			0.38	V-0	140	150	2	0	-	-	-	Yes
			0.75	V-0	140	160	1	0	-	-	-	Yes
			1.50	V-0	140	170	0	0	-	2	-	Yes
mmWave G(E)	No ANSI	NC	0.20	V-0	130	140	2	0	-	-	Yes	Yes
			0.38	V-0	140	150	2	0	-	-	-	Yes
			0.75	V-0	140	160	1	0	-	-	-	Yes
			1.50	V-0	140	170	0	0	-	2	-	Yes
Q160, PQ160, Q161, Q162												
	FR-4.0	NC	0.20	V-0	120	90	0	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.4	V-0	130	140	0	0	-	0	-	Yes
Q260,Q260#,PQ260												
	CEM-3.0	NC	1.4	V-0	130	140	0	2	-	0	-	Yes
			0.63	V-0	130	140	0	2	-	-	-	Yes
Q310	CEM-1	NC	0.63	V-0	130	140	3	2	4	-	-	Yes
			1.40	V-0	130	140	1	2	4	3	-	Yes
Q360, Q360H, Q360G, Q360W												
	CEM-1	NC	0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	0	-	Yes
S1136G (Note 4)	No ANSI	WT	0.04	V-0	-	-	-	-	-	-	-	-
			0.10	V-0	-	-	-	-	-	-	-	-
			0.20	V-0	-	-	-	-	-	-	-	-
			0.38	V-0	-	-	-	-	-	-	-	-
S1150GH	FR-4.1	NC	0.03	V-0	130	120	4	3	-	-	Yes	Yes
			0.20	V-0	130	130	4	0	-	-	-	Yes
			0.38	V-0	130	130	1	0	-	-	-	Yes

			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	3	-	Yes
S1155GX	FR-4.1	NC	0.03	V-0	105	130	4	4	-	-	Yes	-
			0.05	V-0	105	130	4	4	-	-	-	-
			0.10	V-0	120	130	4	0	-	-	-	Yes
			0.20	V-0	130	130	2	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	3	-	Yes
S1165, SI546, S7542K												
	No ANSI	NC	0.05	V-0	-	-	-	-	-	-	Yes	-
			0.20	V-0	130	125	1	2	-	-	-	Yes
			0.38	V-0	140	130	0	2	-	-	-	Yes
			0.80	V-0	150	140	0	2	-	-	-	Yes
			1.60	V-0	150	150	0	2	-	4	-	Yes
S1165G	FR-4.1	NC	0.20	V-0	130	125	1	2	-	-	Yes	Yes
			0.38	V-0	130	130	0	2	-	-	-	Yes
			0.63	V-0	130	140	0	2	-	-	-	Yes
			1.40	V-0	130	140	0	2	-	4	-	Yes
S1170F	FR-4.0	NC	0.20	V-0	130	130	2	3	-	-	-	Yes
			0.38	V-0	130	130	0	3	-	-	-	Yes
			0.63	V-0	130	140	0	3	-	-	-	Yes
			1.40	V-0	130	140	0	2	-	3	-	Yes
S1170GH	FR-4.1	NC	0.03	V-0	130	120	4	3	-	-	Yes	Yes
			0.20	V-0	130	130	4	0	-	-	-	Yes
			0.38	V-0	130	130	1	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	3	-	Yes
S1180G	FR-4.1	NC	0.20	V-0	130	125	1	2	-	-	Yes	Yes
			0.38	V-0	130	130	0	2	-	-	-	Yes
			0.63	V-0	130	140	0	2	-	-	-	Yes
			1.40	V-0	130	140	0	2	-	4	-	Yes
S1210G	FR-15.1	NC	0.025	V-0	130	140	5	1	-	-	Yes	-

			0.10	V-0	130	150	4	0	-	-	-	Yes
			0.20	V-0	140	150	4	0	-	-	-	Yes
			0.38	V-0	150	150	1	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	3	-	Yes
S1250G	FR-15.1	NC	0.025	V-0	130	140	5	1	-	-	Yes	-
			0.10	V-0	130	150	4	0	-	-	-	Yes
			0.20	V-0	140	150	4	0	-	-	-	Yes
			0.38	V-0	150	150	1	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	3	-	Yes
S1600GH	FR-15.1	NC	0.10	V-0	120	120	0	0	-	-	Yes	Yes
			0.20	V-0	120	120	0	0	-	-	-	Yes
			0.43	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	0	-	Yes
S168GL	FR-4.1	NC	0.03	V-0	105	130	4	4	-	-	Yes	-
			0.05	V-0	105	130	4	4	-	-	-	-
			0.10	V-0	120	130	4	0	-	-	-	Yes
			0.20	V-0	130	130	2	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	3	-	Yes
S168GN	FR-15.1	NC	0.025	V-0	105	140	0	4	-	-	Yes	-
			0.10	V-0	125	150	0	0	-	-	-	Yes
			0.20	V-0	150	150	0	0	-	-	-	Yes
			0.38	V-0	150	150	0	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	3	-	Yes
S225G	FR-15.1	NC	0.025	V-0	105	140	0	4	-	-	Yes	-
			0.10	V-0	125	150	0	0	-	-	-	Yes
			0.20	V-0	150	150	0	0	-	-	-	Yes
			0.38	V-0	150	150	0	0	-	-	-	Yes

			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	3	-	Yes
S26, S2600F	CEM-3.0	NC	0.63	V-0	130	140	0	1	-	-	-	Yes
			1.60	V-0	130	140	0	0	-	0	-	Yes
S7439GS	FR-15.1	NC	0.05	V-0	140	130	4	2	-	-	Yes	Yes
			0.15	V-0	150	150	4	0	-	-	-	Yes
			0.20	V-0	150	150	4	0	-	-	-	Yes
			0.38	V-0	150	150	3	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	2	-	Yes
S7641G	FR-15.1	NC	0.025	V-0	130	140	5	1	-	-	Yes	-
			0.10	V-0	130	150	4	0	-	-	-	Yes
			0.20	V-0	140	150	4	0	-	-	-	Yes
			0.38	V-0	150	150	1	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	3	-	Yes
S7645G	FR-15.1	NC	0.025	V-0	130	140	5	1	-	-	Yes	-
			0.10	V-0	130	150	4	0	-	-	-	Yes
			0.20	V-0	140	150	4	0	-	-	-	Yes
			0.38	V-0	150	150	1	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	3	-	Yes
S7735GD2	FR-15.1	NC	0.05	V-0	140	130	4	2	-	-	Yes	Yes
			0.15	V-0	150	150	4	0	-	-	-	Yes
			0.20	V-0	150	150	4	0	-	-	-	Yes
			0.38	V-0	150	150	3	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	2	-	Yes
SDI06K	FR-15.1	NC	0.025	V-0	130	140	5	1	-	-	Yes	-
			0.10	V-0	130	150	4	0	-	-	-	Yes
			0.20	V-0	140	150	4	0	-	-	-	Yes
			0.38	V-0	150	150	1	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes

			1.40	V-0	150	150	0	0	-	3	-	Yes
SDI07K	FR-15.1	NC	0.025	V-0	130	140	5	1	-	-	Yes	-
			0.10	V-0	130	150	4	0	-	-	-	Yes
			0.20	V-0	140	150	4	0	-	-	-	Yes
			0.38	V-0	150	150	1	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	3	-	Yes
SI05NF	FR-15.1	NC	0.025	V-0	130	140	5	1	-	-	Yes	-
			0.10	V-0	130	150	4	0	-	-	-	Yes
			0.20	V-0	140	150	4	0	-	-	-	Yes
			0.38	V-0	150	150	1	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	3	-	Yes
SI07N	FR-15.1	NC	0.025	V-0	130	140	5	1	-	-	Yes	-
			0.10	V-0	130	150	4	0	-	-	-	Yes
			0.20	V-0	140	150	4	0	-	-	-	Yes
			0.38	V-0	150	150	1	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	3	-	Yes
ST110	FR-4.0	NC	0.20	V-0	130	130	0	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	1	-	Yes
ST215, ST210G	CEM-3.1	NC	0.50	V-0	130	130	0	2	-	-	-	Yes
			0.63	V-0	130	140	0	1	-	-	-	Yes
			1.60	V-0	130	140	0	1	-	0	-	Yes
SU1301, S1155K, SL1155K												
	FR-4.1	NC	0.03	V-0	105	130	4	4	-	-	Yes	-
			0.05	V-0	105	130	4	4	-	-	-	-
			0.10	V-0	120	130	4	0	-	-	-	Yes
			0.20	V-0	130	130	2	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes

			1.40	V-0	130	140	0	0	-	3	-	Yes
SU1609	No ANSI	NC	0.025	V-0	90	90	5	1	-	-	Yes	-
			0.10	V-0	90	90	4	0	-	-	-	Yes
			0.20	V-0	90	90	4	0	-	-	-	Yes
			0.38	V-0	90	90	1	0	-	-	-	Yes
			0.63	V-0	90	90	0	0	-	-	-	Yes
			1.50	V-0	90	90	0	0	-	3	-	Yes
SU1621	No ANSI	NC	0.03	V-0	90	95	4	2	-	-	-	Yes
			0.05	V-0	90	95	4	1	-	-	-	Yes
			0.20	V-0	90	115	4	0	-	-	-	Yes
			0.38	V-0	90	115	3	0	-	-	-	Yes
			0.80	V-0	90	115	0	0	-	-	-	Yes
			1.60	V-0	100	120	0	0	-	2	-	Yes
SU1804	No ANSI	NC	0.10	V-0	130	140	4	0	-	-	Yes	Yes
			0.20	V-0	150	160	3	0	-	-	-	Yes
			0.38	V-0	155	160	3	0	-	-	-	Yes
			0.63	V-0	170	170	0	0	-	-	-	Yes
			1.40	V-0	170	180	0	0	-	0	-	Yes
SU1903	No ANSI	NC	0.20	V-0	180	170	0	0	-	-	-	Yes
			0.38	V-0	180	180	0	0	-	-	-	Yes
			0.63	V-0	180	180	0	0	-	-	-	Yes
			1.40	V-0	180	180	0	0	-	3	-	Yes
Synamic6GX	FR-15.1	NC	0.05	V-0	140	130	4	2	-	-	Yes	Yes
			0.15	V-0	150	150	4	0	-	-	-	Yes
			0.20	V-0	150	150	4	0	-	-	-	Yes
			0.38	V-0	150	150	3	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	2	-	Yes
Synamic8G	No ANSI	NC	0.20	V-0	130	140	4	0	-	-	Yes	Yes
			0.38	V-0	140	150	1	0	-	-	-	Yes
			0.75	V-0	140	160	0	0	-	-	-	Yes
			1.50	V-0	140	170	0	0	-	3	-	Yes
Synamic8GN	No ANSI	NC	0.20	V-0	130	140	4	0	-	-	Yes	Yes

			0.38	V-0	140	150	1	0	-	-	-	Yes
			0.75	V-0	140	160	0	0	-	-	-	Yes
			1.50	V-0	140	170	0	0	-	3	-	Yes
Synamic8GX	No ANSI	NC	0.20	V-0	130	140	4	0	-	-	Yes	Yes
			0.38	V-0	140	150	1	0	-	-	-	Yes
			0.75	V-0	140	160	0	0	-	-	-	Yes
			1.50	V-0	140	170	0	0	-	3	-	Yes
Synamic9GN	No ANSI	NC	0.20	V-0	130	140	4	0	-	-	Yes	Yes
			0.38	V-0	140	150	1	0	-	-	-	Yes
			0.75	V-0	140	160	0	0	-	-	-	Yes
			1.50	V-0	140	170	0	0	-	3	-	Yes
Synamic9N	No ANSI	NC	0.06	V-0	130	140	0	1	-	-	-	Yes
			0.10	V-0	140	150	0	0	-	-	-	Yes
			0.20	V-0	140	160	0	0	-	-	-	Yes
			0.38	V-0	140	180	0	0	-	-	-	Yes
			0.80	V-0	140	180	0	0	-	-	-	Yes
			1.60	V-0	140	180	0	0	-	2	-	Yes
Industrial laminates furnished as sheets or rolls												
Q100, Q100A, Q100B, Q100C, Q100D, Q100E, Q100F, Q100G												
	FR-4.0	NC	0.10	V-0	120	90	0	0	-	-	-	Yes
			0.20	V-0	120	90	0	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	3	-	Yes
S1135G	No ANSI	NC	0.05	V-0	-	-	-	-	-	-	-	-
			0.20	V-0	125	120	0	0	-	-	-	Yes
			0.38	V-0	130	120	0	0	-	-	-	Yes
			0.63	V-0	130	120	0	0	-	-	-	Yes
			1.40	V-0	130	130	0	0	4	2	-	Yes
S25	No ANSI	NC	0.20	V-0	95	110	-	-	-	-	-	-
			0.38	V-0	100	110	-	-	-	-	-	-
			0.80	V-0	120	110	-	-	-	-	-	-
			1.60	V-0	140	130	-	-	-	-	-	-

S7439G	FR-15.1	NC	0.03	V-0	120	120	0	3	-	-	Yes	Yes
			0.20	V-0	150	140	0	0	-	-	-	Yes
			0.38	V-0	150	150	0	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	3	-	Yes
SU1611	No ANSI	NC	0.20	V-0	50	50	0	0	-	-	-	Yes
			0.38	V-0	50	50	0	0	-	-	-	Yes
			0.63	V-0	50	50	0	0	-	-	-	Yes
			1.40	V-0	50	50	0	0	-	3	-	Yes
Industrial laminates furnished as sheets, rods or tubes												
Autolad2	FR-4.0	NC	0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.60	V-0	130	140	0	0	-	0	-	Yes
Autolad3G	FR-15.1	NC	0.05	V-0	130	140	0	1	-	-	Yes	Yes
			0.10	V-0	130	140	0	0	-	-	-	Yes
			0.38	V-0	150	150	0	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	3	-	Yes
S1000	FR-4.0	NC	0.38	V-0	130	130	1	0	-	-	-	Yes
			0.63	V-0	130	140	0	3	4	-	-	Yes
			1.60	V-0	130	140	0	2	4	3	-	Yes
S1000-2, S-2(C)	FR-4.0	NC	0.38	V-0	130	130	1	0	-	-	-	Yes
			0.63	V-0	130	140	0	3	4	-	-	Yes
			1.60	V-0	130	140	0	2	4	3	-	Yes
S1000-2M, Autolad3												
	FR-4.0	NC	0.10	V-0	-	-	-	-	-	-	-	-
			0.20	V-0	130	130	2	3	-	-	-	Yes
			0.38	V-0	130	130	0	3	-	-	-	Yes
			0.63	V-0	130	140	0	3	-	-	-	Yes
			1.40	V-0	130	140	0	2	-	3	-	Yes
S1000HS	FR-4.0	NC	0.20	V-0	-	-	-	-	-	-	-	-
			0.38	V-0	130	130	0	3	-	-	-	Yes
			0.80	V-0	130	140	0	1	-	-	-	Yes

			1.60	V-0	130	140	0	0	-	3	-	Yes
S1000M, S1000H, Autolad1												
	FR-4.0	NC	0.05	V-0	90	90	-	-	-	-	-	-
			0.10	V-0	90	90	-	-	-	-	-	-
			0.38	V-0	130	130	0	3	-	-	-	Yes
			0.80	V-0	130	140	0	1	-	-	-	Yes
			1.60	V-0	130	140	0	0	-	3	-	Yes
S1130	FR-4.0	NC	0.18	V-0	130	130	0	0	6	-	-	Yes
			0.33	V-0	130	130	0	0	5	-	-	Yes
			0.63	V-0	130	130	0	0	5	-	-	Yes
			1.40	V-0	130	130	0	0	4	0	-	Yes
S1141, S1141-4, S1141 150, S1141 170, S1151												
	FR-4.0	NC	0.07	V-0	90	90	3	0	-	-	-	Yes
			0.38	V-0	130	130	3	0	0	-	-	Yes
			0.63	V-0	130	140	3	0	0	-	-	Yes
			1.40	V-0	130	140	3	0	0	3	-	Yes
S1141KF	FR-4.0	NC	0.07	V-0	90	90	3	0	-	-	-	Yes
			0.38	V-0	130	130	3	0	0	-	-	Yes
			0.63	V-0	130	140	3	0	0	-	-	Yes
			1.40	V-0	130	140	3	0	0	3	-	Yes
S1145, S1150G, S1125, SI055W												
	FR-4.1	NC	0.05	V-0	110	110	0	3	-	-	Yes	Yes
			0.10	V-0	130	130	0	3	-	-	-	Yes
			0.20	V-0	130	130	0	3	-	-	-	Yes
			0.38	V-0	130	130	0	2	-	-	-	Yes
			0.63	V-0	130	140	0	2	-	-	-	Yes
			1.40	V-0	130	140	0	1	-	1	-	Yes
S1150	FR-4.0	NC	0.38	V-0	130	130	0	3	-	-	-	Yes
			0.63	V-0	130	140	0	3	-	-	-	Yes
			1.40	V-0	130	140	0	2	-	4	-	Yes
S1150F, S1140F, S1141-4F												
	FR-4.0	NC	0.38	V-0	130	130	0	3	-	-	-	Yes
			0.63	V-0	130	140	0	3	-	-	-	Yes

			1.40	V-0	130	140	0	2	-	3	-	Yes
S1151G	FR-4.1	NC	1.40	V-0	130	140	0	0	-	0	Yes	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.20	V-0	130	110	0	0	-	-	-	Yes
			0.05	V-0	130	100	4	1	-	-	-	Yes
S1152G	FR-4.1	NC	0.05	V-0	110	110	0	3	-	-	Yes	Yes
			0.10	V-0	130	130	0	3	-	-	-	Yes
			0.20	V-0	130	130	0	3	-	-	-	Yes
			0.38	V-0	130	130	0	2	-	-	-	Yes
			0.63	V-0	130	140	0	2	-	-	-	Yes
			1.40	V-0	130	140	0	1	-	1	-	Yes
S1155M	FR-4	NC	1.50	V-0	130	140	0	0	-	2	-	Yes
S1170	FR-4.0	NC	0.38	V-0	130	130	-	-	-	-	-	-
			0.63	V-0	130	140	0	3	-	-	-	Yes
			1.57	V-0	130	140	0	2	-	3	-	Yes
S1170G, S7045GH	FR-15.1	NC	0.03	V-0	150	125	4	4	-	-	Yes	-
			0.10	V-0	150	140	4	0	-	-	-	Yes
			0.20	V-0	150	150	1	0	-	-	-	Yes
			0.38	V-0	150	150	0	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	3	-	Yes
S1170GP	No ANSI	NC	0.38	V-0	-	-	-	-	-	-	-	-
			0.63	V-0	-	-	-	-	-	-	-	-
			1.40	V-0	-	-	-	-	-	-	-	-
S1170M	FR-4.0	NC	0.06	V-0	90	90	-	-	-	-	-	-
			0.20	V-0	130	140	0	3	-	-	-	Yes
			0.38	V-0	130	140	0	3	-	-	-	Yes
			0.63	V-0	130	140	0	2	-	-	-	Yes
			1.40	V-0	130	140	0	1	-	3	-	Yes
S1190	FR-4.0	NC	0.09	V-0	130	130	0	3	-	-	-	Yes
			0.20	V-0	130	130	0	2	-	-	-	Yes
			0.38	V-0	130	130	0	1	-	-	-	Yes

			0.63	V-0	130	140	0	1	-	-	-	Yes
			1.40	V-0	130	140	0	1	-	2	-	Yes
S1190G	FR-15.1	NC	0.38	V-0	150	150	0	0	-	-	Yes	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	3	-	Yes
S1190M	FR-15.0	NC	0.09	V-0	130	130	0	3	-	-	-	Yes
			0.20	V-0	130	130	0	2	-	-	-	Yes
			0.38	V-0	140	140	0	1	-	-	-	Yes
			0.63	V-0	150	150	0	1	-	-	-	Yes
			1.40	V-0	150	150	0	1	-	2	-	Yes
S1440	FR-4.0	NC	0.38	V-0	130	140	0	0	4	-	-	Yes
			0.80	V-0	130	140	0	0	4	-	-	Yes
			1.60	V-0	130	140	0	0	3	1	-	Yes
S1600, S1600M	FR-4.0	NC	0.63	V-0	130	140	0	3	4	-	-	Yes
			1.57	V-0	130	140	0	2	4	0	-	Yes
S1600H	FR-4.0	NC	0.20	V-0	130	130	0	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	0	-	Yes
S1600L	FR-4.0	NC	0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.60	V-0	130	140	0	0	-	0	-	Yes
S1860	FR-4.0	NC	0.38	V-0	130	130	1	0	-	-	-	-
			0.80	V-0	130	140	1	1	-	-	-	Yes
			1.60	V-0	130	140	1	1	-	4	-	Yes
S2126, S2135, S2155												
	CEM-3.0	NC	0.63	V-0	130	140	3	0	4	-	-	Yes
			1.40	V-0	130	140	1	0	4	0	-	Yes
S2130, S2130JB$	CEM-3.0	NC	0.63	V-0	130	140	0	2	4	-	-	Yes
			1.40	V-0	130	140	0	2	4	3	-	Yes
			0.50	V-0	130	130	0	2	-	-	-	Yes
S2131, S2131JB	CEM-3.0	NC	0.63	V-0	130	140	0	0	4	-	-	Yes
			1.40	V-0	130	140	0	0	4	3	-	Yes

S2136, ST210	CEM-3.0	NC	0.63	V-0	130	140	0	0	4	-	-	Yes
			1.40	V-0	130	140	0	0	4	3	-	Yes
S2155G	CEM-3.1	NC	0.50	V-0	130	130	0	1	-	-	-	Yes
			0.63	V-0	130	140	0	1	-	-	-	Yes
			1.40	V-0	130	140	0	1	-	0	-	Yes
S2600EF	CEM-3.0	NC	0.63	V-0	130	140	0	1	-	-	-	Yes
			1.40	V-0	130	140	0	1	-	3	-	Yes
S3110, COB714	CEM-1	NC	0.63	V-0	130	140	3	2	4	-	-	Yes
			1.57	V-0	130	140	1	2	4	-	-	Yes
			3.20	V-0	130	140	-	-	-	2	-	Yes
S3116	CEM-1	NC	0.63	V-0	130	140	3	2	4	-	-	Yes
			1.57	V-0	130	140	1	2	4	0	-	Yes
S3155	No ANSI	NC	0.63	V-0	90	90	-	-	-	-	-	-
			1.60	V-0	90	90	-	-	-	2	-	-
S7035, AeroWave 360												
	FR-4.0	NC	0.20	V-0	120	130	0	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	2	-	Yes
S7036	FR-4.0	NC	0.20	V-0	120	130	0	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	2	-	Yes
S7038, SL7038	FR-4.0	NC	0.20	V-0	120	130	0	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	2	-	Yes
S7038V	FR-4.0	NC	0.20	V-0	120	130	0	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	2	-	Yes
S7040G	FR-4.1	NC	0.03	V-0	90	90	4	4	-	-	Yes	-
			0.20	V-0	120	120	4	0	-	-	-	Yes

			0.38	V-0	130	130	4	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	2	-	Yes
S7040GX	FR-4.1	NC	0.20	V-0	120	120	4	0	-	-	Yes	Yes
			0.38	V-0	130	130	4	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	2	-	Yes
S7045G	FR-4.1	NC	0.03	V-0	120	125	4	4	-	-	Yes	-
			0.10	V-0	120	130	4	0	-	-	-	Yes
			0.20	V-0	130	130	1	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	3	-	Yes
S7045GX	FR-4.1	NC	0.20	V-0	120	120	4	0	-	-	Yes	Yes
			0.38	V-0	130	130	4	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	2	-	Yes
S7438	No ANSI	NC	0.10	V-0	-	-	-	-	-	-	-	-
			0.38	V-0	-	-	-	-	-	-	-	-
			0.80	V-0	-	-	-	-	-	-	-	-
			1.60	V-0	-	-	-	-	-	-	-	-
S7542G (Note 1)	No ANSI	NC	0.20	V-0	90	90	-	-	-	-	-	-
SB120	No ANSI	NC (YL)	0.05	V-0	-	-	-	-	-	-	-	-
			0.38	V-0	-	-	-	-	-	-	-	-
			0.63	V-0	-	-	-	-	-	-	-	-
			1.40	V-0	-	-	-	-	-	-	-	-
SCGA-500-GF220	No ANSI	NC	0.25	V-0	-	-	0	0	-	-	-	-
			0.50	V-0	-	-	0	0	-	-	-	-
			0.76	V-0	-	-	0	0	-	-	-	-
			1.50	V-0	-	-	0	0	-	0	-	-
SCGA-500-GF265	No ANSI	NC	0.25	V-0	-	-	0	0	-	-	-	-
			0.50	V-0	-	-	0	0	-	-	-	-
			0.76	V-0	-	-	0	0	-	-	-	-

			1.50	V-0	-	-	0	0	-	0	-	-
SCGA-500-GF300	No ANSI	NC	0.25	V-0	130	130	0	0	-	-	-	-
			0.50	V-0	130	130	0	0	-	-	-	-
			0.76	V-0	130	130	0	0	-	-	-	-
			1.50	V-0	130	130	0	0	-	0	-	-
SE80, SDI03, SDI03K, LSDI03K												
	FR-4.1	NC	0.03	V-0	130	130	0	1	-	-	Yes	Yes
			0.10	V-0	130	130	0	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	3	-	Yes
SML02G, SI543	FR-15.1	NC	0.03	V-0	130	140	0	1	-	-	Yes	Yes
			0.10	V-0	130	140	0	0	-	-	-	Yes
			0.38	V-0	150	150	0	0	-	-	-	Yes
			0.63	V-0	150	150	0	0	-	-	-	Yes
			1.40	V-0	150	150	0	0	-	3	-	Yes
ST115, ST115D	FR-4.0	NC	0.20	V-0	130	130	0	0	-	-	-	Yes
			0.38	V-0	130	130	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	4	1	-	Yes
SU1305	FR-4.1	NC	0.03	V-0	120	110	0	3	-	-	Yes	Yes
			0.10	V-0	130	130	0	0	-	-	-	Yes
			0.20	V-0	130	140	0	0	-	-	-	Yes
			0.38	V-0	130	140	0	0	-	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	-	Yes
			1.40	V-0	130	140	0	0	-	3	-	Yes
SU1501	No ANSI	NC	0.05	V-0	130	130	1	3	-	-	Yes	Yes
			0.10	V-0	160	160	1	0	-	-	-	Yes
			0.38	V-0	170	170	0	0	-	-	-	Yes
			0.63	V-0	180	180	0	0	-	-	-	Yes
			1.40	V-0	180	180	0	0	-	3	-	Yes
SU1504	No ANSI	NC	0.20	V-0	90	90	0	0	-	-	-	Yes
			0.38	V-0	90	90	0	0	-	-	-	Yes

			0.80	V-0	90	90	0	0	-	-	-	Yes
			1.60	V-0	90	90	0	0	-	0	-	Yes
SU1603	No ANSI	NC	0.10	V-0	150	150	3	0	-	-	-	Yes
			0.20	V-0	150	150	0	0	-	-	-	Yes
			0.38	V-0	160	150	0	0	-	-	-	Yes
			0.80	V-0	160	150	0	0	-	-	-	Yes
			1.50	V-0	160	150	0	0	-	2	-	Yes
WLM1	No ANSI	NC	0.04	HB	-	-	-	-	-	-	-	-
			0.10	HB	-	-	-	-	-	-	-	-
			0.38	HB	-	-	-	-	-	-	-	-
			0.63	HB	-	-	-	-	-	-	-	-
			1.40	HB	-	-	-	-	-	0	-	-

Metal base industrial laminates:

		Metal		Dielectric			R.T.I.					H			
Mtl Dsg	**Color**	**Min Thk (mm)**	**Max Thk (mm)**	**Min Thk (mic)**	**Max Thk (mic)**	**Flame Class**	**Elec (°C)**	**Mech (°C)**	**H W I**	**H A I**	**V T R**	**C T I**	**Meets 746E Non-HAL**	**Meets 746E DSR**
Aluminum base with Epoxy (EP) and Phenolic dielectric, industrial laminates furnished as sheets or rolls														
SA110L	NC	0.30	-	70	200	V-0	-	-	-	-	-	-	-	-
SAR15, SAR20, SAR20H, SAR30, STR15(e)														
	NC	0.30	-	50	150	V-0	130	130	4	0	-	0	-	Yes
Aluminum or Copper base with Epoxy (EP) dielectric, industrial laminates furnished as sheets														
SAR20HM, SCR20HM (k2)														
	NC	0.30	-	35	150	V-0	180	170	4	0	-	0	-	Yes
		0.60	-	151	400	V-0	90	90	4	0	-	0	-	Yes
SAR20L, SCR20L, STR20L (j)														
	NC	0.30	-	50	150	V-0	90	90	4	0	-	0	-	Yes
SAR20LM, SCR20LM, STR20 (k1)														
	NC	0.30	-	35	150	V-0	180	170	4	0	-	0	-	Yes
		0.60	-	151	400	V-0	90	90	4	0	-	0	-	Yes
SAR25H, SCR25H, STR20 (k1)														
	NC	0.30	-	35	150	V-0	180	170	4	0	-	0	-	Yes
Anodized Aluminum base with Epoxy (EP) blend dielectric, industrial laminates furnished as sheets														

SAR10S, SAR15S, SAR20S, SAR30S														
	NC	0.30	-	50	-	V-0	140	140	4	1	-	-	-	Yes
		0.30	-	-	150	V-0	140	140	4	1	-	0	-	Yes
Anodized Aluminum base with Epoxy (EP) with glass fabric dielectric, industrial laminates furnished as sheets or rolls														
SA115, SA120	NC	0.30	-	70	200	V-0	90	90	0	1	-	1	-	Yes
Copper base with Epoxy (EP) blend dielectric, industrial laminates furnished as sheets														
SCR10S, SCR15S, SCR20S, SCR30S (i)														
	NC	0.45	-	50	-	V-0	140	140	4	1	-	-	-	Yes
		0.45	-	-	150	V-0	140	140	4	1	-	0	-	Yes
		0.60	-	-	300	V-0	140	140	3	0	-	0	-	Yes
Iron base with Epoxy (EP) blend dielectric, industrial laminates furnished as sheets														
SFR10S, SFR15S, SFR20S, SFR30S (i)														
	NC	0.45	-	55	-	V-0	140	140	4	1	-	-	-	Yes
		0.45	-	-	150	V-0	140	140	4	1	-	0	-	Yes

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**
AeroBond 350	No ANSI	0.16	160	90	AeroBond 350	50	50	AeroBond 350	50	50
		0.50	160	130	AeroBond 350	50	50	AeroBond 350	50	50
		0.76	160	160	AeroBond 350	50	50	AeroBond 350	50	50
		1.52	170	170	AeroBond 350	50	50	AeroBond 350	50	50
Aerowave 300	No ANSI	0.20	100	105	AeroWave 300	40	95	AeroBond 300	40	95
		0.38	125	115	AeroWave 300	40	95	AeroBond 300	40	95
AeroWave300X	No ANSI	0.16	160	90	AeroWave300X	50	50	AeroWave300XB	50	50
		0.50	160	130	AeroWave300X	50	50	AeroWave300XB	50	50
		0.76	160	160	AeroWave300X	50	50	AeroWave300XB	50	50
		1.52	170	170	AeroWave300X	50	50	AeroWave300XB	50	50
Aerowave350/Aerowave350B										
	No ANSI	0.38	50	50	Aerowave350	50	50	Aerowave350B	50	50

Autolad1G	FR-4.1	0.20	130	130	Autolad1G	30	130	Autolad1GB	30	130
		0.63	130	140	Autolad1G	30	130	Autolad1GB	30	130
Autolad2	FR-4.0	0.38	130	130	Autolad2	50	90	Autolad2B	50	90
		0.63	130	140	Autolad2	50	90	Autolad2B	50	90
Autolad2G	FR-15.1	0.20	120	120	Autolad2G	50	90	Autolad2GB	50	90
		0.43	130	130	Autolad2G	50	90	Autolad2GB	50	90
		0.63	150	150	Autolad2G	50	90	Autolad2GB	50	90
Autolad2GH	FR-15.1	0.20	120	120	Autolad2GH	50	90	Autolad2GHB	50	90
		0.43	130	130	Autolad2GH	50	90	Autolad2GHB	50	90
		0.63	150	150	Autolad2GH	50	90	Autolad2GHB	50	90
Autolad3G	FR-15.1	0.10	130	140	Autolad3G	30	90	Autolad3GB	30	90
		0.38	150	150	Autolad3G	30	90	Autolad3GB	30	90
		0.63	150	150	Autolad3G	30	90	Autolad3GB	30	90
		1.40	150	150	Autolad3G	30	90	Autolad3GB	30	90
Autolad5	No ANSI	0.20	130	130	Autolad5	30	90	Autolad5B	30	90
		0.38	140	140	Autolad5	30	90	Autolad5B	30	90
		0.75	150	150	Autolad5	30	90	Autolad5B	30	90
BLM1	No ANSI	0.10	-	-	BLM1	50	-	BLM1B	50	-
LNB33C	No ANSI	0.16	160	90	LNB33C	50	50	LNB33CB	50	50
		0.50	160	130	LNB33C	50	50	LNB33CB	50	50
		0.76	160	160	LNB33C	50	50	LNB33CB	50	50
		1.52	170	170	LNB33C	50	50	LNB33CB	50	50
LS150GN	FR-4.1	0.20	130	130	LS150GN	30	130	LS150GNB	30	130
		0.63	130	140	LS150GN	30	130	LS150GNB	30	130
mmWave G	No ANSI	0.20	130	140	mmWave G	50	50	mmWave GB	50	50
		0.38	140	150	mmWave G	50	50	mmWave GB	50	50
		0.75	140	160	mmWave G	50	50	mmWave GB	50	50
		1.50	140	170	mmWave G	50	50	mmWave GB	50	50

mmWave G(E)	No ANSI	0.20	130	140	mmWave G(E)	50	50	mmWave GB(E)	50	50
		0.38	140	150	mmWave G(E)	50	50	mmWave GB(E)	50	50
		0.75	140	160	mmWave G(E)	50	50	mmWave GB(E)	50	50
		1.50	140	170	mmWave G(E)	50	50	mmWave GB(E)	50	50
Q100, Q100A, Q100B, Q100C, Q100D, Q100E, Q100F, Q100G/Q100CB										
	FR-4.0	0.38	130	130	Q100, Q100A, Q100B, Q100C, Q100D, Q100E, Q100F, Q100G	50	90	Q100CB	50	90
S	No ANSI	0.16	160	90	S	50	50	SB	50	50
		0.50	160	130	S	50	50	SB	50	50
		0.76	160	160	S	50	50	SB	50	50
		1.52	170	170	S	50	50	SB	50	50
S0101 600	No ANSI	0.40	90	90	-	-	-	S0101 600	200	90
S1000	FR-4.0	0.38	130	130	S1000	50	90	S1000B	50	90
		0.38	130	130	S1000	102	120	S1000B	102	120
S1000-2, S-2(C)	FR-4.0	0.38	130	130	S1000-2, S-2	50	90	S1000-2B, S-2B	50	50
		0.38	130	130	S1000-2, S-2	102	120	S1000-2B, S-2B	102	120
S1000-2M, Autolad3										
	FR-4.0	0.20	130	130	S1000-2M, Autolad3	50	90	S1000-2MB, SP170M, Autolad3B	50	90
		0.38	130	130	S1000-2M, Autolad3	50	90	S1000-2MB, SP170M, Autolad3B	50	90
		0.63	130	140	S1000-2M, Autolad3	50	90	S1000-2MB, SP170M, Autolad3B	50	90
		1.40	130	140	S1000-2M, Autolad3	50	90	S1000-2MB, SP170M, Autolad3B	50	90
S1000HS	FR-4.0	0.20	-	-	S1000HS	50	-	S1000HSB	50	-
		0.38	130	130	S1000HS	50	90	S1000HSB	50	90
		0.63	130	140	S1000HS	50	90	S1000HSB	50	90
S1000M, S1000H, Autolad1										

	FR-4.0	0.10	90	90	S1000M, S1000H, Autolad1	50	90	S1000MB, S1000HB, Autolad1B	50	90
		0.38	130	130	S1000M, S1000H, Autolad1	50	90	S1000MB, S1000HB, Autolad1B	50	90
S1130	FR-4.0	0.38	130	130	S1130	50	90	S0101	50	90
		0.38	130	130	S1130	160	120	S0101	160	120
S1135, S7546	No ANSI	0.20	95	130	S1135, S7546	50	50	S1135B, S7546B	50	50
		0.38	105	130	S1135, S7546	50	50	S1135B, S7546B	50	50
		0.70	115	130	S1135, S7546	50	50	S1135B, S7546B	50	50
		1.50	130	140	S1135, S7546	50	50	S1135B, S7546B	50	50
S1135G	No ANSI	0.20	125	120	S1135G	30	90	S1135GB	30	90
		0.38	130	120	S1135G	30	90	S1135GB	30	90
		0.63	130	120	S1135G	30	90	S1135GB	30	90
		1.40	130	130	S1135G	30	90	S1135GB	30	90
S1136G (Note 4)	No ANSI	0.10	-	-	S1136G	40	-	S1136GB	40	-
S1141, S1141-4, S1141 150, S1141 170, S1151										
	FR-4.0	0.38	130	130	S1141, S1141-4, S1141 150, S1141 170, S1151	50	90	S0401, S0401-4, S0401 150, S0401 170, S1151B	50	90
		0.38	130	130	S1141, S1141-4, S1141 150, S1141 170, S1151	160	120	S0401, S0401-4, S0401 150, S0401 170, S1151B	160	120
S1141KF	FR-4.0	0.38	130	130	S1141KF	50	90	S0401KF	50	90
		0.38	130	140	S1141KF	160	120	S0401KF	160	120
S1145, S1150G, S1125, SI055W										
	FR-4.1	0.10	130	130	S1145, S1150G, S1125, SI055W	30	90	S1145B, S1150GB, S1125B, SI055WB	30	90
S1150	FR-4.0	0.38	130	130	S1150	50	90	S1150B	50	90
S1150F, S1140F, S1141-4F										

	FR-4.0	0.38	130	130	S1150F, S1140F, S1141-4F	50	90	S1150FB, S1140FB, S0401-4F	50	90
		0.63	130	140	S1150F, S1140F, S1141-4F	50	90	S1150FB, S1140FB, S0401-4F	50	90
		1.40	130	140	S1150F, S1140F, S1141-4F	50	90	S1150FB, S1140FB, S0401-4F	50	90
S1150GH	FR-4.1	0.20	130	130	S1150GH	30	130	S1150GHB	30	130
		0.63	130	140	S1150GH	30	130	S1150GHB	30	130
S1151G	FR-4.1	0.63	130	140	S1151G	50	90	S1151GB	50	90
		0.38	130	130	S1151G	50	90	S1151GB	50	90
		0.20	130	110	S1151G	50	90	S1151GB	50	90
S1152G	FR-4.1	0.10	130	130	S1152G	30	90	S1152GB	30	90
S1155 600	No ANSI	0.63	50	50	S1155 600	200	50	S0155 600	200	50
S1155GX	FR-4.1	0.10	120	130	S1155GX	30	105	S1155GXB	30	105
		0.20	130	130	S1155GX	30	105	S1155GXB	30	105
		0.63	130	140	S1155GX	30	105	S1155GXB	30	105
S1155M	No ANSI	0.10	140	130	S1155M	30	125	S1155MB	30	125
		0.20	150	140	S1155M	30	125	S1155MB	30	125
		0.38	150	140	S1155M	30	125	S1155MB	30	125
		0.63	150	150	S1155M	30	125	S1155MB	30	125
		1.40	150	150	S1155M	0.03	125	S1155MB	30	125
S1165, SI546, S7542K										
	No ANSI	0.20	130	125	S1165, SI546, S7542K	50	50	S0165, SI546B, S7542KB	50	50
		0.38	140	130	S1165, SI546, S7542K	50	50	S0165, SI546B, S7542KB	50	50
		0.80	150	140	S1165, SI546, S7542K	50	50	S0165, SI546B, S7542KB	50	50
		1.60	150	150	S1165, SI546, S7542K	50	50	S0165, SI546B, S7542KB	50	50
S1165G	FR-4.1	0.20	130	125	S1165G	50	50	S1165GB	50	50

		0.38	130	130	S1165G	50	50	S1165GB	50	50
		0.63	130	140	S1165G	50	50	S1165GB	50	50
S1170	FR-4.0	0.38	130	130	S1170	50	90	S0701	50	90
		0.63	130	140	S1170	50	90	S0701	50	90
		1.57	130	140	S1170	50	90	S0701	50	90
S1170F	FR-4.0	0.20	130	130	S1170F	50	90	S1170FB	50	90
		0.38	130	130	S1170F	50	90	S1170FB	50	90
		0.63	130	140	S1170F	50	90	S1170FB	50	90
		1.40	130	140	S1170F	50	90	S1170FB	50	90
S1170G, S7045GH	FR-15.1	0.10	150	140	S1170G, S7045GH	30	150	S1170GB, S7045GHB	30	150
		0.20	150	150	S1170G, S7045GH	30	150	S1170GB, S7045GHB	30	150
		0.38	150	150	S1170G, S7045GH	30	150	S1170GB, S7045GHB	30	150
		0.63	150	150	S1170G, S7045GH	30	150	S1170GB, S7045GHB	30	150
		1.40	150	150	S1170G, S7045GH	30	150	S1170GB, S7045GHB	30	150
S1170GH	FR-4.1	0.20	130	130	S1170GH	30	130	S1170GHB	30	130
		0.63	130	140	S1170GH	30	130	S1170GHB	30	130
S1170GP	No ANSI	0.38	-	-	S1170GP	50	-	S1170GPB	50	-
S1170M	FR-4.0	0.20	130	140	S1170M	50	90	S0701M	50	90
S1180G	FR-4.1	0.20	130	125	S1180G	50	50	S1180GB	50	50
		0.38	130	130	S1180G	50	50	S1180GB	50	50
		0.63	130	140	S1180G	50	50	S1180GB	50	50
S1190	FR-4.0	0.20	130	130	S1190	30	90	S1190B	30	90
		0.38	130	130	S1190	30	90	S1190B	30	90
		0.63	130	140	S1190	30	90	S1190B	30	90
		1.40	130	140	S1190	30	90	S1190B	30	90
S1190G	FR-15.1	0.38	150	150	S1190G	30	90	S1190GB	30	90

		0.63	150	150	S1190G	30	90	S1190GB	30	90
		1.40	150	150	S1190G	30	90	S1190GB	30	90
S1190M	FR-15.0	0.20	130	130	S1190M	30	90	S1190MB	30	90
		0.38	140	140	S1190M	30	90	S1190MB	30	90
		0.63	150	150	S1190M	30	90	S1190MB	30	90
		1.40	150	150	S1190M	30	90	S1190MB	30	90
S1210G	FR-15.1	0.10	130	150	S1210G	25	130	S1210GB	25	130
		0.20	140	150	S1210G	25	130	S1210GB	25	130
		0.38	150	150	S1210G	25	130	S1210GB	25	130
		0.63	150	150	S1210G	25	130	S1210GB	25	130
		1.40	150	150	S1210G	25	130	S1210GB	25	130
S1220, S7643	No ANSI	0.20	105	120	S1220, S7643	40	90	S1220B, S7643B	30	90
		0.38	110	120	S1220, S7643	40	90	S1220B, S7643B	30	90
		0.63	120	120	S1220, S7643	40	90	S1220B, S7643B	30	90
		1.60	130	130	S1220, S7643	40	90	S1220B, S7643B	30	90
S1250G	FR-15.1	0.10	130	150	S1250G	25	130	S1250GB	25	130
		0.20	140	150	S1250G	25	130	S1250GB	25	130
		0.38	150	150	S1250G	25	130	S1250GB	25	130
		0.63	150	150	S1250G	25	130	S1250GB	25	130
		1.40	150	150	S1250G	25	130	S1250GB	25	130
S1440	FR-4.0	0.38	130	130	S1440	50	90	S0440	50	90
		0.38	130	130	S1440	160	120	S0440	160	120
S1600GH	FR-15.1	0.20	120	120	S1600GH	50	90	S1600GHB	50	90
		0.43	130	130	S1600GH	50	90	S1600GHB	50	90
		0.63	150	150	S1600GH	50	90	S1600GHB	50	90
S1600H	FR-4.0	0.20	130	130	S1600H	50	90	S1600HB	50	90
		0.38	130	130	S1600H	50	90	S1600HB	50	90
		0.63	130	140	S1600H	50	90	S1600HB	50	90
		1.40	130	140	S1600H	50	90	S1600HB	50	90

S1600L	FR-4.0	0.38	130	130	S1600L	50	90	S1600LB	50	90
		0.63	130	140	S1600L	50	90	S1600LB	50	90
		1.40	130	140	S1600L	50	90	S1600LB	50	90
S168GL	FR-4.1	0.10	120	130	S168GL	30	105	SP168GL	30	105
		0.20	130	130	S168GL	30	105	SP168GL	30	105
		0.63	130	140	S168GL	30	105	SP168GL	30	105
S168GN/SP168GN	FR-15.1	0.10	125	150	S168GN	25	105	SP168GN	25	105
		0.20	150	150	S168GN	25	105	SP168GN	25	105
S1860	FR-4.0	0.38	130	130	S1860	50	90	S1860B	50	90
S2130, S2130JB	CEM-3.0	0.63	130	140	S2130, S2130JB$	50	90	S0102	50	90
		0.63	130	140	S2130, S2130JB$	50	90	S0103	90	90
		0.63	130	140	S2130, S2130JB$	50	90	S0104	160	120
S225G/SP225G	FR-15.1	0.10	125	150	S225G	25	105	SP225G	25	105
		0.20	150	150	S225G	25	105	SP225G	25	105
S25	No ANSI	0.20	95	110	S25	50	50	S25B	50	50
		0.38	100	110	S25	50	50	S25B	50	50
		0.80	120	110	S25	50	50	S25B	50	50
		1.60	140	130	S25	50	50	S25B	50	50
S7035, AeroWave 360										
	FR-4.0	0.20	120	130	S7035, AeroWave 360	50	90	S7035B, AeroBond 360	50	90
		0.38	130	130	S7035, AeroWave 360	50	90	S7035B, AeroBond 360	50	90
		0.63	130	140	S7035, AeroWave 360	50	90	S7035B, AeroBond 360	50	90
		1.40	130	140	S7035, AeroWave 360	50	90	S7035B, AeroBond 360	50	90
S7036	FR-4.0	0.20	120	130	S7036	50	90	S7036B	50	90
		0.38	130	130	S7036	50	90	S7036B	50	90
		0.63	130	140	S7036	50	90	S7036B	50	90
		1.40	130	140	S7036	50	90	S7036B	50	90

S7038, SL7038	FR-4.0	0.20	120	130	S7038, SL7038	50	90	S7038B, SL7038B	50	90
		0.38	130	130	S7038, SL7038	50	90	S7038B, SL7038B	50	90
		0.63	130	140	S7038, SL7038	50	90	S7038B, SL7038B	50	90
		1.40	130	140	S7038, SL7038	50	90	S7038B, SL7038B	50	90
S7038V	FR-4.0	0.20	120	130	S7038V	50	90	S7038VB	50	90
		0.38	130	130	S7038V	50	90	S7038VB	50	90
		0.63	130	140	S7038V	50	90	S7038VB	50	90
		1.40	130	140	S7038V	50	90	S7038VB	50	90
S7040G	FR-4.1	0.20	120	120	S7040G	30	90	S7040GB	30	90
		0.38	130	130	S7040G	30	90	S7040GB	30	90
		0.63	130	140	S7040G	30	90	S7040GB	30	90
		1.40	130	140	S7040G	30	90	S7040GB	30	90
S7040GX	FR-4.1	0.20	120	120	S7040GX	30	90	S7040GXB	30	90
		0.38	130	130	S7040GX	30	90	S7040GXB	30	90
		0.63	130	140	S7040GX	30	90	S7040GXB	30	90
		1.40	130	140	S7040GX	30	90	S7040GXB	30	90
S7045G	FR-4.1	0.10	120	130	S7045G	30	120	S7045GB	30	120
		0.20	130	130	S7045G	30	120	S7045GB	30	120
		0.38	130	130	S7045G	30	120	S7045GB	30	120
		0.63	130	140	S7045G	30	120	S7045GB	30	120
		1.40	130	140	S7045G	30	120	S7045GB	30	120
S7045GX	FR-4.1	0.20	120	120	S7045GX	30	90	S7045GXB	30	90
		0.38	130	130	S7045GX	30	90	S7045GXB	30	90
		0.63	130	140	S7045GX	30	90	S7045GXB	30	90
		1.40	130	140	S7045GX	30	90	S7045GXB	30	90
S7135D	No ANSI	0.16	160	90	S7135D	50	50	S7135D	50	50
		0.50	160	130	S7135D	50	50	S7135D	50	50
		0.76	160	160	S7135D	50	50	S7135D	50	50
		1.52	170	170	S7135D	50	50	S7135D	50	50

S7135D2	No ANSI	0.16	160	90	S7135D2	50	50	S7135D2	50	50
		0.50	160	130	S7135D2	50	50	S7135D2	50	50
		0.76	160	160	S7135D2	50	50	S7135D2	50	50
		1.52	170	170	S7135D2	50	50	S7135D2	50	50
S7136D	No ANSI	0.16	160	90	S7136D	50	50	S7136D	50	50
		0.50	160	130	S7136D	50	50	S7136D	50	50
		0.76	160	160	S7136D	50	50	S7136D	50	50
		1.52	170	170	S7136D	50	50	S7136D	50	50
S7136H	No ANSI	0.38	150	140	S7136H	85	50	S7136HB	85	50
S7242	No ANSI	0.38	90	90	S7242	50	50	S7242B	50	50
		0.63	90	90	S7242	50	50	S7242B	50	50
		1.40	90	90	S7242	50	50	S7242B	50	50
S7338, S7335, Synamic 6, Synamic 6N										
	No ANSI	0.80	150	130	S7338, S7335, Synamic 6, Synamic 6N	40	50	S7338B, S7335B, Synamic 6B, Synamic 6NB	40	50
S7439G	FR-15.1	0.20	150	140	S7439G	30	120	S7439GB	30	120
		0.38	150	150	S7439G	30	120	S7439GB	30	120
		0.63	150	150	S7439G	30	120	S7439GB	30	120
		1.40	150	150	S7439G	30	120	S7439GB	30	120
S7439GS	FR-15.1	0.15	150	150	S7439GS	50	140	S7439GSB	50	140
S7542G (Note 1)	No ANSI	0.20	90	90	S7542G	30	90	S7542GB	30	90
S7641G	FR-15.1	0.10	130	150	S7641G	25	130	S7641GB	25	130
		0.20	140	150	S7641G	25	130	S7641GB	25	130
		0.38	150	150	S7641G	25	130	S7641GB	25	130
		0.63	150	150	S7641G	25	130	S7641GB	25	130
		1.40	150	150	S7641G	25	130	S7641GB	25	130
S7645G	FR-15.1	0.10	130	150	S7645G	25	130	S7645GB	25	130
		0.20	140	150	S7645G	25	130	S7645GB	25	130

		0.38	150	150	S7645G	25	130	S7645GB	25	130
		0.63	150	150	S7645G	25	130	S7645GB	25	130
		1.40	150	150	S7645G	25	130	S7645GB	25	130
S7735D2/ S7735D2B										
	No ANSI	0.20	160	160	S7735D2	100	155	S7735D2B	100	155
		0.38	160	170	S7735D2	100	155	S7735D2B	100	155
		0.63	160	200	S7735D2	100	155	S7735D2B	100	155
S7735GD2	FR-15.1	0.15	150	150	S7735GD2	50	140	S7735GD2B	50	140
S78	No ANSI	0.20	100	105	S78	40	95	S78B	40	95
		0.38	125	115	S78	40	95	S78B	40	95
SB170G	No ANSI	0.20	95	130	SB170G	50	50	SB170GB	50	50
		0.38	105	130	SB170G	50	50	SB170GB	50	50
		0.70	115	130	SB170G	50	50	SB170GB	50	50
		1.50	130	140	SB170G	50	50	SB170GB	50	50
SDI06K	FR-15.1	0.10	130	150	SDI06K	25	130	SDI06KB	25	130
		0.20	140	150	SDI06K	25	130	SDI06KB	25	130
		0.38	150	150	SDI06K	25	130	SDI06KB	25	130
		0.63	150	150	SDI06K	25	130	SDI06KB	25	130
		1.40	150	150	SDI06K	25	130	SDI06KB	25	130
SDI07K	FR-15.1	0.10	130	150	SDI07K	25	130	SDI07KB	25	130
		0.20	140	150	SDI07K	25	130	SDI07KB	25	130
		0.38	150	150	SDI07K	25	130	SDI07KB	25	130
		0.63	150	150	SDI07K	25	130	SDI07KB	25	130
		1.40	150	150	SDI07K	25	130	SDI07KB	25	130
SE40, S7439, S7439HW, S7439C										
	No ANSI	0.20	120	130	SE40, S7439, S7439HW, S7439C	50	50	SE40B, S7439B, S7439HWB, S7439CB	50	50
		0.38	160	160	SE40, S7439, S7439HW, S7439C	50	50	SE40B, S7439B, S7439HWB, S7439CB	50	50

		0.63	170	160	SE40, S7439, S7439HW, S7439C	50	50	SE40B, S7439B, S7439HWB, S7439CB	50	50
		1.40	180	170	SE40, S7439, S7439HW, S7439C	50	50	SE40B, S7439B, S7439HWB, S7439CB	50	50
SE80, SDI03, SDI03K, LSDI03K										
	FR-4.1	0.10	130	130	SE80, SDI03, SDI03K, LSDI03K	30	90	SE80B, SDI03B, SDI03KB, LSDI03KB	30	90
		0.38	130	130	SE80, SDI03, SDI03K, LSDI03K	30	90	SE80B, SDI03B, SDI03KB, LSDI03KB	30	90
		0.63	130	140	SE80, SDI03, SDI03K, LSDI03K	30	90	SE80B, SDI03B, SDI03KB, LSDI03KB	30	90
		1.40	130	140	SE80, SDI03, SDI03K	30	90	SE80B, SDI03B, SDI03KB	30	90
SH260, SH260M	No ANSI	0.20	50	50	SH260, SH260M	40	50	SH260B	40	50
SI05NF	FR-15.1	0.10	130	150	SI05NF	25	130	SI05NFB	25	130
		0.20	140	150	SI05NF	25	130	SI05NFB	25	130
		0.38	150	150	SI05NF	25	130	SI05NFB	25	130
		0.63	150	150	SI05NF	25	130	SI05NFB	25	130
		1.40	150	150	SI05NF	25	130	SI05NFB	25	130
SI07N	FR-15.1	0.10	130	150	SI07N	25	130	SI07NB	25	130
		0.20	140	150	SI07N	25	130	SI07NB	25	130
		0.38	150	150	SI07N	25	130	SI07NB	25	130
		0.63	150	150	SI07N	25	130	SI07NB	25	130
		1.40	150	150	SI07N	25	130	SI07NB	25	130
SI07US/SI07NSB	No ANSI	0.10	140	140	SI07US	30	130	SI07NSB	30	130
		0.38	160	150	SI07US	30	130	SI07NSB	30	130
		0.80	170	160	SI07US	30	130	SI07NSB	30	130
		1.60	170	170	SI07US	30	130	SI07NSB	30	130
SI10NF	No ANSI	0.20	105	120	SI10NF	40	90	SI10NFB	40	90
		0.38	110	120	SI10NF	40	90	SI10NFB	40	90

		0.63	120	120	SI10NF	40	90	SI10NFB	40	90
		1.60	130	130	SI10NF	40	90	SI10NFB	40	90
SI10U(S)	No ANSI	0.10	70	90	SI10U(S)	40	70	SI10NB(S)	40	70
		0.20	85	90	SI10U(S)	40	70	SI10NB(S)	40	70
		0.38	90	90	SI10U(S)	40	70	SI10NB(S)	40	70
		0.63	95	90	SI10U(S)	40	70	SI10NB(S)	40	70
		1.60	120	105	SI10U(S)	40	70	SI10NB(S)	40	70
SI10USR/SI10NSRB										
	No ANSI	0.10	140	140	SI10USR	30	130	SI10NSRB	30	113
		0.38	160	150	SI10USR	30	130	SI10NSRB	30	113
		0.80	170	160	SI10USR	30	130	SI10NSRB	30	113
		1.60	170	170	SI10USR	30	130	SI10NSRB	30	113
SI13U/SI13NB	No ANSI	0.10	140	140	SI13U	30	130	SI13NB	30	130
		0.38	160	150	SI13U	30	130	SI13NB	30	130
		0.80	170	160	SI13U	30	130	SI13NB	30	130
		1.60	170	170	SI13U	30	130	SI13NB	30	130
SI13UR/SI13NRB	No ANSI	0.10	90	90	SI13UR	30	90	SI13NRB	30	90
SI242D	No ANSI	0.20	130	105	SI242D	40	50	SI242DB	30	50
		0.38	140	115	SI242D	40	50	SI242DB	30	50
		0.71	150	155	SI242D	40	50	SI242DB	30	50
		1.50	160	155	SI242D	40	50	SI242DB	30	50
SI246, SI246U	No ANSI	0.10	70	90	SI246, SI246U	40	70	SI246B, SI246UB	40	70
		0.20	85	90	SI246, SI246U	40	70	SI246B, SI246UB	40	70
		0.38	90	90	SI246, SI246U	40	70	SI246B, SI246UB	40	70
		0.63	95	90	SI246, SI246U	40	70	SI246B, SI246UB	40	70
		1.60	120	105	SI246, SI246U	40	70	SI246B, SI246UB	40	70
SI64X, SI643, SI643U, SI643HU										
	No ANSI	0.20	105	120	SI64X, SI643, SI643U, SI643HU	40	90	SI64XB, SI643B, SI643UB, SI643HUB, SI643HB	30	90

		0.38	110	120	SI64X, SI643, SI643U, SI643HU	40	90	SI64XB, SI643B, SI643UB, SI643HUB, SI643HB	30	90
		0.63	120	120	SI64X, SI643, SI643U, SI643HU	40	90	SI64XB, SI643B, SI643UB, SI643HUB, SI643HB	30	90
		1.60	130	130	SI64X, SI643, SI643U, SI643HU	40	90	SI64XB, SI643B, SI643UB, SI643HUB, SI643HB	30	90
SML02G, SI543	FR-15.1	0.10	130	140	SML02G, SI543	30	90	SML02GB, SI543B	30	90
		0.38	150	150	SML02G, SI543	30	90	SML02GB, SI543B	30	90
		0.63	150	150	SML02G, SI543	30	90	SML02GB, SI543B	30	90
		1.40	150	150	SML02G, SI543	30	90	SML02GB, SI543B	30	90
SP170G	No ANSI	0.10	50	50	-	-	-	SP170G	50	50
SP170N	No ANSI	0.10	50	50	-	-	-	SP170N	50	50
ST110	FR-4.0	0.20	130	130	ST110	50	90	ST110B	50	90
		0.63	130	140	ST110	50	90	ST110B	50	90
ST110G	No ANSI	0.10	160	150	ST110G	50	90	ST110GB	50	90
		0.20	160	160	ST110G	50	90	ST110GB	50	90
		0.70	170	160	ST110G	50	90	ST110GB	50	90
ST115, ST115D	FR-4.0	0.20	130	130	ST115, ST115D	50	90	ST115B, ST115DB	50	90
		0.38	130	130	ST115, ST115D	50	90	ST115B, ST115DB	50	90
		0.63	130	140	ST115, ST115D	50	90	ST115B, ST115DB	50	90
		1.40	130	140	ST115, ST115D	50	90	ST115B, ST115DB	50	90
ST115G	No ANSI	0.10	160	150	ST115G	50	90	ST115GB	50	90
		0.20	160	160	ST115G	50	90	ST115GB	50	90
		0.70	170	160	ST115G	50	90	ST115GB	50	90
SU1301, S1155K, SL1155K										
	FR-4.1	0.10	120	130	SU1301, S1155K, SL1155K	30	105	SU1301B, S1155KB, SL1155KB	30	105

		0.20	130	130	SU1301, S1155K	30	105	SU1301B, S1155KB, SL1155KB	30	105
		0.63	130	140	SU1301, S1155K, SL1155K	30	105	SU1301B, S1155KB, SL1155KB	30	105
SU1304	No ANSI	0.10	70	90	SU1304	40	70	SU1304B	40	70
		0.20	85	90	SU1304	40	70	SU1304B	40	70
		0.38	90	90	SU1304	40	70	SU1304B	40	70
		0.63	95	90	SU1304	40	70	SU1304B	40	70
		1.60	120	105	SU1304	40	70	SU1304B	40	70
SU1305	FR-4.1	0.10	130	130	SU1305	30	120	SU1305B	30	120
		0.20	130	140	SU1305	30	120	SU1305B	30	120
SU1402	No ANSI	0.38	170	170	SU1402	85	50	SU1402B	85	50
		1.60	180	170	SU1402	85	50	SU1402B	85	50
SU1501		0.10	160	160	SU1501	30	90	SU1501B	30	90
SU1504	No ANSI	0.20	90	90	SU1504	50	90	SU1504B	50	90
		0.38	90	90	SU1504	50	90	SU1504B	50	90
		0.80	90	90	SU1504	50	90	SU1504B	50	90
		1.60	90	90	SU1504	50	90	SU1504B	50	90
SU1603	No ANSI	0.20	150	150	SU1603	50	65	SU1603B	40	65
		0.38	160	150	SU1603	50	65	SU1603B	40	65
		0.80	160	150	SU1603	50	65	SU1603B	40	65
		1.50	160	150	SU1603	50	65	SU1603B	40	65
SU1609	No ANSI	0.10	90	90	SU1609	25	90	SU1609B	25	90
		0.20	90	90	SU1609	25	90	SU1609B	25	90
		0.38	90	90	SU1609	25	90	SU1609B	25	90
		0.63	90	90	SU1609	25	90	SU1609B	25	90
		1.50	90	90	SU1609	25	90	SU1609B	25	90
SU1611	No ANSI	0.20	50	50	SU1611	50	50	SU1611B	50	50
		0.38	50	50	SU1611	50	50	SU1611B	50	50

		0.63	50	50	SU1611	50	50	SU1611B	50	50
		1.50	50	50	SU1611	50	50	SU1611B	50	50
SU1615	No ANSI	0.10	95	110	SU1615	30	90	SU1615B	30	90
		0.20	110	120	SU1615	30	90	SU1615B	30	90
		0.38	125	125	SU1615	30	90	SU1615B	30	90
		0.63	140	125	SU1615	30	90	SU1615B	30	90
		1.40	150	140	SU1615	30	90	SU1615B	30	90
SU1621	No ANSI	0.20	90	115	SU1621	30	90	SU1621B	30	90
		0.38	90	115	SU1621	30	90	SU1621B	30	90
		0.80	90	115	SU1621	30	90	SU1621B	30	90
		1.60	100	120	SU1621	30	90	SU1621B	30	90
SU1804	No ANSI	0.10	130	140	SU1804	25	50	SU1804B	25	50
		0.20	150	160	SU1804	25	50	SU1804B	25	50
		0.38	155	160	SU1804	25	50	SU1804B	25	50
		0.63	170	170	SU1804	25	50	SU1804B	25	50
		1.40	170	180	SU1804	25	50	SU1804B	25	50
SU1903	No ANSI	0.20	180	170	SU1903	50	90	SU1903B	50	90
		0.38	180	180	SU1903	50	90	SU1903B	50	90
Synamic6(X)	No ANSI	0.80	150	130	Synamic6(X)	40	50	Synamic6B(X)	40	50
Synamic6GX	FR-15.1	0.15	150	150	Synamic6GX	50	140	Synamic6GXB	50	140
Synamic8G	No ANSI	0.20	130	140	Synamic8G	50	50	Synamic8GB	50	50
		0.38	140	150	Synamic8G	50	50	Synamic8GB	50	50
		0.75	140	160	Synamic8G	50	50	Synamic8GB	50	50
		1.50	140	170	Synamic8G	50	50	Synamic8GB	50	50
Synamic8GN	No ANSI	0.20	130	140	Synamic8GN	50	50	Synamic8GNB	50	50
		0.38	140	150	Synamic8GN	50	50	Synamic8GNB	50	50
		0.75	140	160	Synamic8GN	50	50	Synamic8GNB	50	50
		1.50	140	170	Synamic8GN	50	50	Synamic8GNB	50	50

Synamic8GX	No ANSI	0.20	130	140	Synamic8GX	50	50	Synamic8GXB	50	50
		0.38	140	150	Synamic8GX	50	50	Synamic8GXB	50	50
		0.75	140	160	Synamic8GX	50	50	Synamic8GXB	50	50
		1.50	140	170	Synamic8GX	50	50	Synamic8GBX	50	50
Synamic8N	No ANSI	0.10	105	130	Synamic8N	50	95	Synamic8NB	50	95
		0.20	125	140	Synamic8N	50	95	Synamic8NB	50	95
		0.38	140	140	Synamic8N	50	95	Synamic8NB	50	95
Synamic8NE	No ANSI	0.10	105	130	Synamic8NE	50	95	Synamic8NEB	50	95
		0.20	125	140	Synamic8NE	50	95	Synamic8NEB	50	95
		0.38	140	140	Synamic8NE	50	95	Synamic8NEB	50	95
Synamic9GN	No ANSI	0.20	130	140	Synamic9GN	50	50	Synamic9GNB	50	50
		0.38	140	150	Synamic9GN	50	50	Synamic9GNB	50	50
		0.75	140	160	Synamic9GN	50	50	Synamic9GNB	50	50
		1.50	140	170	Synamic9GN	50	50	Synamic9GNB	50	50
Synamic9N/ Synamic9NB										
	No ANSI	0.10	140	150	Synamic9N	50	50	Synamic9NB	50	50
		0.20	140	160	Synamic9N	50	50	Synamic9NB	50	50
		0.38	140	180	Synamic9N	50	50	Synamic9NB	50	50
WLM1	No ANSI	0.10	-	-	WLM1	30	-	WLM1B	30	-

Base films (declad materials):

		Film		Adhesive			R.T.I.				H		
Mtl Dsg	**Color**	**Min Thk (mm)**	**Max Thk (mm)**	**Min Thk (mic)**	**Max Thk (mic)**	**Flame Class**	**Elec (°C)**	**Mech (°C)**	**HWI**	**HAI**	**VTR**	**CTI**	**Meets 746E DSR**
Liquid Crystal Polymer (LCP) Base films (Adhesiveless) furnished as sheets or rolls													
SF701	NC	0.025	0.025	-	-	VTM-0	130	130	4	2	-	-	Yes
	NC	0.050	0.050	-	-	VTM-0	130	130	4	1	-	4	Yes
Polyamide-imide Base films with adhesive on one or both sides,													
M215	BK	0.003	0.007	-	-	VTM-0	-	-	-	-	-	-	-
Polyethylene Terephthalate (PET) Base films with Polyester adhesive required on both sides, furnished as sheets or rolls													

BIF202	NC	0.125	0.125	30	38	VTM-0	105	105	0	0	-	-	Yes
	NC	0.125	0.188	20	20	VTM-2	105	105	4	0	-	-	Yes
	NC	0.188	0.188	30	30	VTM-1	105	105	4	0	-	-	Yes
	NC	0.188	0.188	38	38	V-2	105	105	4	0	-	1	Yes
Polyethylene Terephthalate (PET) Base films with Polyester adhesive on one side only, furnished as sheets or rolls													
BIF201	WT	0.125	0.125	20	38	VTM-2	105	105	0	0	-	-	Yes
	WT	0.175	0.175	38	38	VTM-2	105	105	0	0	-	1	Yes
Polyimide (PI) Base films (Adhesiveless) furnished as sheets or rolls													
SF212	NC	0.0125	0.0125	-	-	VTM-0	220	240	0	4	-	-	-
	NC	0.020	0.020	-	-	VTM-0	240	240	0	3	-	-	Yes
	NC	0.025	0.025	-	-	V-0	240	240	0	3	-	3	Yes
	NC	0.050	0.050	-	-	V-0	260	260	0	1	-	3	Yes
SF230	NC	0.0125	0.0125	-	-	VTM-0	130	130	0	3	-	-	Yes
	NC	0.020	0.020	-	-	VTM-0	130	130	0	3	-	-	Yes
	NC	0.025	0.025	-	-	VTM-0	130	130	0	1	-	-	Yes
	NC	0.050	0.050	-	-	V-0	130	130	0	0	-	4	Yes
DL	NC	0.009	0.049	-	-	VTM-0	130	130	0	4	-	-	-
	NC	0.050	0.050	-	-	VTM-0	130	130	0	1	-	4	Yes
SL	NC	0.009	0.049	-	-	VTM-0	130	130	0	4	-	-	-
	NC	0.050	0.050	-	-	VTM-0	130	130	0	1	-	4	Yes
Polyimide (PI) Base films with Epoxy adhesive on one or both sides, furnished as sheets or rolls													
SF305	NC	0.0125	0.0125	10	14	VTM-0	240	200	4	4	-	2	-
	NC	0.0125	0.050	15	24	V-0	240	200	4	4	-	2	-
	NC	0.0125	0.050	25	25	V-0	240	200	4	3	-	2	Yes
Polyimide (PI) Base films with Epoxy (EP) adhesive on one side only, furnished as sheets or rolls													
SF280	NC	0.0125	0.0125	25	100	V-0	130	130	4	0	-	3	Yes
SFOPT	NC	0.0125	0.0125	25	100	V-0	130	130	4	0	-	3	Yes
Polyimide (PI) Base films with Polyimide adhesive on one or both sides, furnished as sheets													
SF202	NC	0.0125	0.025	-	-	VTM-0	130	130	0	4	-	3	-
	NC	0.038	0.038	-	-	V-0	130	130	0	2	-	3	Yes
	NC	0.050	0.050	-	-	V-0	130	130	0	1	-	3	Yes
Polyimide (PI)/Perfluoroalkoxy(PFA) Base films with adhesive on one or both sides, furnished as sheets or rolls													

SF224 (Note 3)	NC	0.039	0.039	-	-	V-0	-	-	-	-	-	-	-
	NC	0.052	0.052	-	-	V-0	-	-	-	-	-	-	-
	NC	0.075	0.075	-	-	V-0	-	-	-	-	-	-	-
	NC	0.101	0.101	-	-	V-0	-	-	-	-	-	-	-
	NC	0.126	0.126	-	-	V-0	-	-	-	-	-	-	-
	NC	0.150	0.150	-	-	V-0	-	-	-	-	-	-	-

Metal clad films:

			Film		Adhesive		Clad Cond Thk			Max		Max	Assembly Solder		Solder Lts	
Metal Clad Dsg	**Lam-inate Dsg**	**Pre-preg Dsg**	**Min Thk (mm)**	**Max Thk (mm)**	**Min Thk (mic)**	**Max Thk (mic)**	**Min Ext (mic)**	**Max Ext (mic)**	**Max Int (mic)**	**Area Dia (mm)**	**Flame Class**	**Oper Temp (°C)**	**Process Temp(°C)**	**Process Cycles**	**Temp (°C)**	**Tim (sec**
Liquid Crystal Polymer (LCP) (Adhesiveless) Metal clad films for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets or rolls																
SF701	SF701	-	0.25	0.05	-	-	12	35	-	50.8	VTM-0	130	-	-	288	10
Polyimide (PI) (Adhesiveless) Metal clad films for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets or rolls																
SF212	SF212	-	0.0125	0.125	-	-	6	102	-	50.8	VTM-0	150	-	-	300	10
			0.020	0.020	-	-	6	102	-	50.8	VTM-0	150	-	-	300	10
			0.025	0.025	-	-	6	102	-	50.8	V-0	150	-	-	300	10
			0.050	0.050	-	-	6	102	-	50.8	V-0	150	-	-	300	10
SF230	SF230	-	0.0125	0.125	-	-	6	70	-	50.8	VTM-0	130	-	-	300	10
			0.020	0.020	-	-	6	70	-	50.8	VTM-0	130	-	-	300	10
			0.025	0.025	-	-	6	70	-	50.8	VTM-0	130	-	-	300	10
			0.050	0.050	-	-	6	70	-	50.8	V-0	130	-	-	300	10
Polyimide (PI) with Epoxy adhesive Metal clad films for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets or rolls																
SF305	SF305	-	0.0125	0.0125	10	14	12	102	-	50.8	VTM-0	130	-	-	288	10
			0.0125	0.050	15	25	12	102	-	50.8	V-0	130	-	-	288	10
Polyimide (PI) with Epoxy (EP) adhesive Metal clad films for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets or rolls																
SF280	SF280	-	0.0125	0.0125	25	100	12	35	-	50.8	V-0	130	-	-	288	10
SFOPT	SFOPT	-	0.0125	0.0125	25	100	12	35	-	50.8	V-0	130	-	-	288	10

Polyimide (PI) with Polyimide adhesive Metal clad films for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets or rolls															
SF202	SF202	-	0.0125	0.025	-	-	6	70	-	50.8	VTM-0	130	-	-	300	10
			0.038	0.050	-	-	6	70	-	50.8	V-0	130	-	-	300	10

Metal clad industrial laminates:

Metal Clad Dsg	Lam-inate Dsg	Pre-preg Dsg	ANSI Type	Bld up Min Thk (mm)	Clad Cond Thk Min Ext (mic)	Max Ext (mic)	Max Int (mic)	Max Area Dia (mm)	Flame Class	Max Oper Temp (°C)	Assembly Solde Process Temp(°C)	Proce Cycle
Benzoxazines, Phenolic, Epoxy Metal clad industrial laminates for use in multilayer printed wiring boards with copper on sides, furnished as sheets												
S1135G	S1135G	S1135GB	No ANSI	0.20^	12	102	12	50.8	V-0	120	-	-
				0.38^	12	102	70	50.8	V-0	120	-	-
Epoxy (EP) Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both sides, f sheets												
S1135, S7546	S1135, S7546	S1135B, S7546B	No ANSI	0.20	9	102	70	50.8	V-0	95	-	-
				0.38	9	102	70	50.8	V-0	105	-	-
				0.70	9	102	70	50.8	V-0	115	-	-
				1.50	9	102	70	50.8	V-0	130	-	-
S1155M/ S1155MB	S1155M	S1155MB	No ANSI	0.10	12	102	18	50.8	V-0	130	-	-
				0.20	12	102	70	50.8	V-0	130	-	-
S7242	S7242	S7242B	No ANSI	0.38	9	102	70	50.8	V-0	90	-	-
SB170G	SB170G	SB170GB	No ANSI	0.20	9	102	70	50.8	V-0	95	-	-
				0.38	9	102	70	50.8	V-0	105	-	-
				0.70	9	102	70	50.8	V-0	115	-	-
				1.50	9	102	70	50.8	V-0	130	-	-
Epoxy (EP) Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides, sheets												
S1135, S7546	S1135, S7546	-	No ANSI	0.20	9	102	-	50.8	V-0	95	-	-
				0.38	9	102	-	50.8	V-0	105	-	-
				0.70	9	102	-	50.8	V-0	115	-	-

				1.50	9	102	-	50.8	V-0	130	-	-
S1155M	S1155M	-	No ANSI	0.10	12	102	-	50.8	V-0	130	-	-
S7242	S7242	-	No ANSI	0.38	9	102	-	50.8	V-0	90	-	-
SB170G	SB170G	-	No ANSI	0.20	9	102	-	50.8	V-0	95	-	-
				0.38	9	102	-	50.8	V-0	105	-	-
				0.70	9	102	-	50.8	V-0	115	-	-
				1.50	9	102	-	50.8	V-0	130	-	-
Epoxy (EP) Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides,												
S3155G	S3155G	-	No ANSI	0.63	18	102	-	50.8	V-0	90	-	-
Epoxy Blend Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both sides, sheets												
SI07US (ASP 1)	SI07US	SI07NSB	No ANSI	0.20	12	102	68	50.8	V-0	130	-	-
				0.20	12	102	68	50.8	V-0	130	260	6
SI10USR (ASP 1)	SI10USR	SI10NSRB	No ANSI	0.20	12	102	68	50.8	V-0	130	-	-
				0.20	12	102	68	50.8	V-0	130	260	6
SI13U (ASP 1)	SI13U	SI13NB	No ANSI	0.20	12	102	68	50.8	V-0	130	-	-
				0.20	12	102	68	50.8	V-0	130	260	6
Epoxy Blend Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides sheets												
SI07US (ASP 1)	SI07US	-	No ANSI	0.20	12	102	-	50.8	V-0	130	-	-
				0.20	12	102	-	50.8	V-0	130	260	6
SI10USR (ASP 1)	SI10USR	-	No ANSI	0.20	12	102	-	50.8	V-0	130	-	-
				0.20	12	102	-	50.8	V-0	130	260	6
SI13U (ASP 1)	SI13U	-	No ANSI	0.20	12	102	-	50.8	V-0	130	-	-
				0.20	12	102	-	50.8	V-0	130	260	6
Epoxy blend Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both sides, sheets												
SE40, S7439, S7439HW, S7439C												

	SE40, S7439, S7439HW, S7439C	SE40B, S7439B, S7439HWB, S7439CB	No ANSI	0.20	12	102	70	50.8	V-0	120	-	-
				0.38	12	102	70	50.8	V-0	130	-	-
				0.63	12	102	70	50.8	V-0	130	-	-
				1.40	12	102	70	50.8	V-0	130	-	-
SI242D	-	-	No ANSI	0.20	9	102	70	50.8	V-0	105	-	-
				0.38	9	102	70	50.8	V-0	115	-	-
				0.71	9	102	70	50.8	V-0	140	-	-
				1.50	9	102	70	50.8	V-0	140	-	-
Epoxy blend Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides sheets												
SE40, S7439, S7439HW, S7439C												
	SE40, S7439, S7439HW, S7439C	-	No ANSI	0.20	12	102	-	50.8	V-0	120	-	-
				0.38	12	102	-	50.8	V-0	130	-	-
				0.63	12	102	-	50.8	V-0	130	-	-
				1.40	12	102	-	50.8	V-0	130	-	-
SI242D	SI242D	-	No ANSI	0.04	11	102	-	50.8	V-0	90	-	-
				0.20	11	102	-	50.8	V-0	105	-	-
				0.38	11	102	-	50.8	V-0	115	-	-
				0.71	11	102	-	50.8	V-0	140	-	-
				1.50	11	102	-	50.8	V-0	140	-	-
Epoxy with Filler Al(OH)3 Metal clad industrial laminates for use in single layer printed wiring boards with copper on one furnished as sheets												
S2600R	S2600R	-	No ANSI	0.63	17	102	-	50.8	V-0	90	-	-
Modified Polyphenylene ether Metal clad industrial laminates for use in multilayer printed wiring boards with copper on sides, furnished as sheets												
S7338, S7335, Synamic 6, Synamic 6N/S7338B, S7335B, Synamic 6B, Synamic 6NB												
	S7338, S7335, Synamic 6, Synamic 6N	S7338B, S7335B, Synamic 6B, Synamic 6NB	No ANSI	0.80	9	102	70	50.8	V-0	130	-	-
Synamic6(X)/Synamic6B(X)												

	Synamic6(X)	Synamic6B(X)	No ANSI	0.80	9	102	70	50.8	V-0	130	-	-
Modified Polyphenylene ether Metal clad industrial laminates for use in single layer printed wiring boards with copper or sides, furnished as sheets												
mmWave	mmWave	-	No ANSI	0.38	9	102	-	50.8	V-0	115	-	-
				0.80	9	102	-	50.8	V-0	130	-	-
S7338, S7335, Synamic 6, Synamic 6N												
	S7338, S7335, Synamic 6, Synamic 6N	-	No ANSI	0.80	9	102	-	50.8	V-0	130	-	-
Synamic6(X)	Synamic6(X)	-	No ANSI	0.80	9	102	-	50.8	V-0	130	-	-
Polyimide blend Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both s as sheets												
S1220, S7643	S1220, S7643	-	No ANSI	0.04	12	102	-	50.8	V-0	90	-	-
				0.20	12	102	-	50.8	V-0	105	-	-
				0.38	12	102	-	50.8	V-0	110	-	-
				0.63	12	102	-	50.8	V-0	120	-	-
				1.60	12	102	-	50.8	V-0	130	-	-
SI10NF	SI10NF	-	No ANSI	0.04	12	102	-	50.8	V-0	90	-	-
				0.20	12	102	-	50.8	V-0	105	-	-
				0.38	12	102	-	50.8	V-0	110	-	-
				0.63	12	102	-	50.8	V-0	120	-	-
				1.60	12	102	-	50.8	V-0	130	-	-
SI64X, SI643, SI643U, SI643HU												
	SI64X, SI643, SI643U, SI643HU	-	No ANSI	0.04	12	102	-	50.8	V-0	90	-	-
				0.20	12	102	-	50.8	V-0	105	-	-
				0.38	12	102	-	50.8	V-0	110	-	-
				0.63	12	102	-	50.8	V-0	120	-	-
				1.60	12	102	-	50.8	V-0	130	-	-
Polyphenylene Oxide Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or b furnished as sheets												

S7135	-	-	No ANSI	0.16	17	102	-	50.8	V-0	65	-	-
				0.50	17	102	-	50.8	V-0	85	-	-
				0.80	17	102	-	50.8	V-0	90	-	-
				1.60	17	102	-	50.8	V-0	95	-	-
Metal clad multilayer package (mass laminate) with internal circuitry and solid copper on outside surfaces, furnished as s												
S1130	S1130	-	FR-4.0	0.22	12	102	68	50.8	V-0	130	-	-
S1170	S1170	S0701	FR-4.0	0.38	17	102	68	50.8	V-0	130	-	-
Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both sides, furnished as												
AeroWave 300	AeroWave 300	AeroBond 300	No ANSI	0.20	12	102	70	50.8	V-0	100	-	-
				0.38	12	102	70	50.8	V-0	115	-	-
Autolad2/Autolad2B												
	Autolad2	Autolad2B	FR-4.0	0.38	9	102	70	50.8	V-0	130	-	-
S1000	S1000	S1000B	FR-4.0	0.38	15	102	65	50.8	V-0	130	-	-
S1000-2, S-2(C)	S1000-2, S-2	S1000-2B, S-2B	FR-4.0	0.38	15	102	65	50.8	V-0	130	-	-
S1000-2M, Autolad3 (ASP 1)												
	S1000-2M, Autolad3	S1000-2MB, SP170M, Autolad3B	FR-4.0	0.20	12	102	70	50.8	V-0	130	-	-
				0.25	17	102	70	50.8	V-0	130	260	6
S1130	S1130	S0101	FR-4.0	0.38	12	68	-	50.8	V-0	130	-	-
S1141, S1141-4, S1141 150, S1141 170, S1151 (ASP 1)												
	S1141, S1141-4, S1141 150, S1141 170, S1151	S0401, S0401-4, S0401 150, S0401 170, S1151B	FR-4.0	0.38	8.5	102	70	50.8	V-0	130	-	-
				0.38	17	102	70	50.8	V-0	130	260	3
S1141KF	S1141KF	S0401KF	FR-4.0	0.38	8.5	102	68	50.8	V-0	130	-	-
S1150	S1150	S1150B	FR-4.0	0.38	9	102	70	50.8	V-0	130	-	-
S1150F, S1140F, S1141-4F												

	S1150F, S1140F, S1141-4F	S1150FB, S1140FB, S0401-4F	FR-4.0	0.38	9	102	70	50.8	V-0	130	-	-
S1151G	S1151G	S1151GB	FR-4.1	0.38	12	102	68	50.8	V-0	130	-	-
				0.25	12	102	68	50.8	V-0	110	-	-
S1152G	S1152G	S1152GB	FR-4.1	0.10	12	102	68	50.8	V-0	130	-	-
S1165, SI546, S7542K												
	S1165, SI546, S7542K	S0165, SI546B, S7542KB	No ANSI	0.38	9	102	68	50.8	V-0	130	-	-
S1165G	S1165G	S1165GB	FR-4.1	0.38	9	102	68	50.8	V-0	130	-	-
S1170	S1170	S0701	FR-4.0	0.38	17	102	68	50.8	V-0	130	-	-
S1170F	S1170F	S1170FB	FR-4.0	0.20	12	102	70	50.8	V-0	130	-	-
S1170G, S7045GH/ S1170GB, S7045GHB												
	S1170G, S7045GH	S1170GB, S7045GHB	FR-15.1	0.10	12	102	18	50.8	V-0	140	-	-
				0.20	12	102	70	50.8	V-0	150	-	-
S1170M	S1170M	S0701M	FR-4.0	0.20	9	102	68	50.8	V-0	130	-	-
S1180G	S1180G	S1180GB	FR-4.1	0.38	9	102	68	50.8	V-0	130	-	-
S1190	S1190	S1190B	FR-4.0	0.20	9	102	68	50.8	V-0	130	-	-
S1190M	S1190M	S1190MB	FR-15.0	0.20	9	102	68	50.8	V-0	130	-	-
S1210G/ S1210GB	S1210G	S1210GB	FR-15.1	0.10	12	102	70	50.8	V-0	130	-	-
S1250G/ S1250GB	S1250G	S1250GB	FR-15.1	0.10	12	102	70	50.8	V-0	130	-	-
S1440	S1440	S0440	FR-4.0	0.38	9.0	70	-	50.8	V-0	130	-	-
S1600H/S1600HB	S1600H	S1600HB	FR-4.0	0.38	9	102	70	50.8	V-0	130	-	-
S1600L/S1600LB	S1600L	S1600LB	FR-4.0	0.38	9	102	70	50.8	V-0	130	-	-
S168GL/SP168GL	S168GL	SP168GL	FR-4.1	0.10	12	102	70	50.8	V-0	120	-	-

				0.20	12	102	70	50.8	V-0	130	-	-
S168GN/SP168GN (ASP 1)												
	S168GN	SP168GN	FR-15.1	0.20	12	102	68	50.8	V-0	130	-	-
				0.20	12	102	68	50.8	V-0	130	260	6
S1860	S1860	S1860B	FR-4.0	0.38	17	68	-	50.8	V-0	130	-	-
S225G/SP225G (ASP 1)												
	S225G	SP225G	FR-15.1	0.20	12	102	68	50.8	V-0	130	-	-
				0.20	12	102	68	50.8	V-0	130	260	6
S7038, SL7038	S7038, SL7038	S7038B, SL7038B	FR-4.0	0.20	17	102	68	50.8	V-0	120	-	-
				0.38	17	102	68	50.8	V-0	130	-	-
S7040G/ S7040GB	S7040G	S7040GB	FR-4.1	0.24	12	102	68	50.8	V-0	120	-	-
				0.38	12	102	68	50.8	V-0	130	-	-
S7040GX/ S7040GXB												
	S7040GX	S7040GXB	FR-4.1	0.24	12	102	68	50.8	V-0	120	-	-
				0.38	12	102	68	50.8	V-0	130	-	-
S7045G/ S7045GB (ASP 1)												
	S7045G	S7045GB	FR-4.1	0.10	12	102	18	50.8	V-0	120	-	-
				0.20	12	102	70	50.8	V-0	130	-	-
				0.20	12	102	70	50.8	V-0	130	260	6
S7045GX/ S7045GXB												
	S7045G	S7045GXB	FR-4.1	0.24	12	102	68	50.8	V-0	120	-	-
				0.38	12	102	68	50.8	V-0	130	-	-
S7641G/S7641GB	S7641G	S7641GB	FR-15.1	0.10	12	102	70	50.8	V-0	130	-	-
S7645G/S7645GB	S7645G	S7645GB	FR-15.1	0.10	12	102	70	50.8	V-0	130	-	-
S78	S78	S78B	No ANSI	0.20	12	102	70	50.8	V-0	100	-	-
				0.38	12	102	70	50.8	V-0	115	-	-
SDI06K/ SDI06KB	SDI06K	SDI06KB	FR-15.1	0.10	12	102	70	50.8	V-0	130	-	-

SDI07K/SDI07KB	SDI07K	SDI07KB	FR-15.1	0.10	12	102	70	50.8	V-0	130	-	-
SI05NF/SI05NFB	SI05NF	SI05NFB	FR-15.1	0.10	12	102	70	50.8	V-0	130	-	-
SI07N/SI07NB	SI07N	SI07NB	FR-15.1	0.10	12	102	70	50.8	V-0	130	-	-
ST115, ST115D	ST115	ST115B	FR-4.0	0.38	12	102	70	50.8	V-0	130	-	-
SU1301/SU1301B, S1155K/S1155KB, SL1155K/SL1155KB												
	SU1301, S1155K, SL1155K	SU1301B, S1155KB, SL1155KB	FR-4.1	0.10	12	102	70	50.8	V-0	120	-	-
				0.20	12	102	70	50.8	V-0	130	-	-
SU1305/ SU1305B	SU1305	SU1305B	FR-4.1	0.10	12	102	18	50.8	V-0	130	-	-
				0.20	12	102	70	50.8	V-0	130	-	-
SU1504/ SU1504B	SU1504	SU1504B	No ANSI	0.38	9	102	70	50.8	V-0	90	-	-
SU1603/ SU1603B	SU1603	SU1603B	No ANSI	0.30	9	102	68	50.8	V-0	130	-	-
SU1609/ SU1609B	SU1609	SU1609B	No ANSI	0.10	12	102	70	50.8	V-0	90	-	-
SU1804	SU1804	SU1804B	No ANSI	0.20	12	102	68	50.8	V-0	130	-	-
Synamic9N/ Synamic9NB (ASP 1)												
	Synamic9N	Synamic9NB	No ANSI	0.38	12	102	70	50.8	V-0	130	260	6
Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both sides, furnished as												
S2130, S2130JB	S2130, S2130JB	S0102, S0103, S0104	CEM-3.0	0.63	17	102	68	50.8	V-0	130	-	-
SU1611/ SU1611B	SU1611	SU1611B	No ANSI	0.38	12	102	70	50.8	V-0	50	-	-
Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both sides, furnished as tubes												
S1000HS/S1000HSB												
	S1000HS	S1000HSB	FR-4.0	0.38	12	102	68	50.8	V-0	130	-	-
S1000M, S1000H, Autolad1 (ASP 1)												
	S1000M, S1000H, Autolad1	S1000MB, S1000HB, Autolad1B	FR-4.0	0.38	12	102	68	50.8	V-0	130	-	-

				0.38	17	102	70	50.8	V-0	130	260	6
Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both sides,												
Q100, Q100A, Q100B, Q100C, Q100D, Q100E, Q100F, Q100G/Q100CB												
	Q100, Q100A, Q100B, Q100C, Q100D, Q100E, Q100F, Q100G	Q100CB	FR-4.0	0.38	12	102	70	50.8	V-0	130	-	-
S1155GX/S1155GXB												
	S1155GX	S1155GXB	FR-4.1	0.10	12	102	70	50.8	V-0	120	-	-
				0.20	12	102	70	50.8	V-0	130	-	-
SE80, SDI03, SDI03K, LSDI03K (ASP 1)												
	SE80, SDI03, SDI03K, LSDI03K	SE80B, SDI03B, SDI03KB, LSDI03KB	FR-4.1	0.20	9	102	70	50.8	V-0	130	260	6
Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides, furnished a												
AeroWave 300	AeroWave 300	-	No ANSI	0.10	12	102	-	50.8	V-0	90	-	-
				0.20	12	102	-	50.8	V-0	100	-	-
				0.38	12	102	-	50.8	V-0	115	-	-
Autolad2	Autolad2	-	FR-4.0	0.38	9	102	-	50.8	V-0	130	-	-
Q160, PQ160, Q161, Q162												
	Q160	-	FR-4.0	0.20	18	102	-	50.8	V-0	90	-	-
				0.38	18	102	-	50.8	V-0	130	-	-
Q260,Q260#,PQ260												
	Q260	-	CEM-3.0	0.63	18	102	-	50.8	V-0	130	-	-
Q360, Q360H, Q360G, Q360W												
	Q360, Q360H, Q360G, Q360W	-	CEM-1	0.63	17	102	-	50.8	V-0	130	-	-
S1000	S1000	-	FR-4.0	0.38	15	102	-	50.8	V-0	130	-	-
				0.63	15	102	-	50.8	V-0	130	-	-

				1.60	15	102	-	50.8	V-0	130	-	-
S1000-2, S-2(C)	S1000-2, S-2	-	FR-4.0	0.38	15	102	-	50.8	V-0	130	-	-
				0.63	15	102	-	50.8	V-0	130	-	-
				1.60	15	102	-	50.8	V-0	130	-	-
S1000-2M, Autolad3 (ASP 1)												
	S1000-2M, Autolad3	-	FR-4.0	0.20	12	102	-	50.8	V-0	130	-	-
				0.25	17	102	-	50.8	V-0	130	260	6
S1130	S1130	-	FR-4.0	0.22	17	68	-	50.8	V-0	130	-	-
				0.38	17	68	-	50.8	V-0	130	-	-
				1.40	17	68	-	50.8	V-0	130	-	-
S1135G	S1135G	-	No ANSI	0.20	12	102	-	50.8	V-0	120	-	-
S1141, S1141-4, S1141 150, S1141 170, S1151 (ASP 1)												
	S1141, S1141-4, S1141 150, S1141 170, S1151	-	FR-4.0	0.38	8.5	102	-	50.8	V-0	130	-	-
				0.38	17	102	-	50.8	V-0	130	260	3
S1141KF	S1141KF	-	FR-4.0	0.38	8.5	102	-	50.8	V-0	130	-	-
S1150	S1150	-	FR-4.0	0.38	9	102	-	50.8	V-0	130	-	-
S1150F, S1140F, S1141-4F												
	S1150F, S1140F, S1141-4F	-	FR-4.0	0.38	9	102	-	50.8	V-0	130	-	-
S1151G	S1151G	-	FR-4.1	0.38	12	102	-	50.8	V-0	130	-	-
				0.25	12	102	-	50.8	V-0	110	-	-
S1152G	S1152G	-	FR-4.1	0.10	12	102	-	50.8	V-0	130	-	-
S1165, SI546, S7542K												
	S1165, SI546	-	No ANSI	0.20	9	102	-	50.8	V-0	115	-	-
				0.38	9	102	-	50.8	V-0	130	-	-

S1165G	S1165G	-	FR-4.1	0.38	9	102	-	50.8	V-0	130	-	-
S1170	S1170	-	FR-4.0	0.38	17	102	-	50.8	V-0	130	-	-
S1170F	S1170F	-	FR-4.0	0.20	12	102	-	50.8	V-0	130	-	-
S1170G, S7045GH	S1170G, S7045GH	-	FR-15.1	0.10	12	102	-	50.8	V-0	140	-	-
				0.20	12	102	-	50.8	V-0	150	-	-
S1170M	S1170M	-	FR-4.0	0.20	9	102	-	50.8	V-0	130	-	-
S1180G	S1180G	-	FR-4.1	0.38	9	102	-	50.8	V-0	130	-	-
S1190	S1190	-	FR-4.0	0.09	9	102	-	50.8	V-0	130	-	-
S1190M	S1190M	-	FR-15.0	0.09	9	102	-	50.8	V-0	130	-	-
S1210G	S1210G	-	FR-15.1	0.025	9	102	-	50.8	V-0	130	-	-
S1250G	S1250G	-	FR-15.1	0.025	9	102	-	50.8	V-0	130	-	-
S1440	S1440	-	FR-4.0	0.38	9.0	70	-	50.8	V-0	130	-	-
S1600, S1600M	S1600, S1600M	-	FR-4.0	0.63	17	68	-	50.8	V-0	130	-	-
S1600H	S1600H	-	FR-4.0	0.20	9	102	-	50.8	V-0	130	-	-
S1600L	S1600L	-	FR-4.0	0.38	9	102	-	50.8	V-0	130	-	-
S168GL	S168GL	-	FR-4.1	0.03	12	102	-	50.8	V-0	105	-	-
				0.10	12	102	-	50.8	V-0	120	-	-
				0.20	12	102	-	50.8	V-0	130	-	-
S168GN (ASP 1)	S168GN	-	FR-15.1	0.20	12	102	-	50.8	V-0	130	-	-
				0.20	12	102	-	50.8	V-0	130	260	6
S1860	S1860	-	FR-4.0	0.38	17	105	-	50.8	V-0	130	-	-
S2126, S2135, S2155												
	S2155	-	CEM-3.0	0.63	9.0	105	-	50.8	V-0	130	-	-

S2130, S2130JB	S2130, S2130JB	-	CEM-3.0	0.50	17	102	-	50.8	V-0	130	-	-
S2131, S2131JB	S2131, S2131JB	-	CEM-3.0	0.63	8.5	68	-	50.8	V-0	130	-	-
S2136, ST210	S2136, ST210	-	CEM-3.0	0.63	8.5	68	-	50.8	V-0	130	-	-
S225G (ASP 1)	S225G	-	FR-15.1	0.20	12	102	-	50.8	V-0	130	-	-
				0.20	12	102	-	50.8	V-0	130	260	6
S26, S2600F	S26	-	CEM-3.0	0.63	9	102	-	50.8	V-0	130	-	-
S2600EF (d)	S2600EF	-	CEM-3.0	S2600EF	17	68	-	50.8	V-0	130	-	-
				S2600EF	17	68	-	50.8	V-0	130	-	-
				S2600EF	17	68	-	50.8	V-0	130	-	-
				S2600EF	17	68	-	50.8	V-0	130	-	-
S3110, COB714	S3110, COB714	-	CEM-1	0.63	17	102	-	50.8	V-0	130	-	-
S3116	S3116	-	CEM-1	0.63	17	102	-	50.8	V-0	130	-	-
S3155	S3155	-	No ANSI	0.63	18	68	-	25.4	V-0	90	-	-
S7038, SL7038	S7038, SL7038	-	FR-4.0	0.20	17	102	-	50.8	V-0	120	-	-
				0.38	17	102	-	50.8	V-0	130	-	-
S7040G	S7040G	-	FR-4.1	0.03	12	102	-	50.8	V-0	90	-	-
				0.24	12	102	-	50.8	V-0	120	-	-
				0.38	12	102	-	50.8	V-0	130	-	-
S7040GX	S7040GX	-	FR-4.1	0.24	12	102	-	50.8	V-0	120	-	-
				0.38	12	102	-	50.8	V-0	130	-	-

S7045G (ASP 1)	S7045G	-	FR-4.1	0.10	12	102	-	50.8	V-0	120	-	-
				0.20	12	102	-	50.8	V-0	130	-	-
				0.20	12	102	-	50.8	V-0	130	260	6
S7045GX	S7045GX	-	FR-4.1	0.24	12	102	-	50.8	V-0	120	-	-
				0.38	12	102	-	50.8	V-0	130	-	-
S7641G	S7641G	-	FR-15.1	0.025	9	102	-	50.8	V-0	130	-	-
S7645G	S7645G	-	FR-15.1	0.025	9	102	-	50.8	V-0	130	-	-
S78	S78	-	No ANSI	0.10	12	102	-	50.8	V-0	90	-	-
				0.20	12	102	-	50.8	V-0	100	-	-
				0.38	12	102	-	50.8	V-0	115	-	-
SDI06K	SDI06K	-	FR-15.1	0.025	9	102	-	50.8	V-0	130	-	-
SDI07K	SDI07K	-	FR-15.1	0.025	9	102	-	50.8	V-0	130	-	-
SI05NF	SI05NF	-	FR-15.1	0.025	9	102	-	50.8	V-0	130	-	-
SI07N	SI07N	-	FR-15.1	0.025	9	102	-	50.8	V-0	130	-	-
ST115, ST115D	ST115	-	FR-4.0	0.38	12	102	-	50.8	V-0	130	-	-
ST215, ST210G	ST215, ST210G	-	CEM-3.1	0.50	12	102	-	50.8	V-0	130	-	-
SU1301, S1155K, SL1155K												
	SU1301, S1155K, SL1155K	-	FR-4.1	0.03	12	102	-	50.8	V-0	105	-	-
				0.10	12	102	-	50.8	V-0	120	-	-
				0.20	12	102	-	50.8	V-0	130	-	-
SU1305	SU1305	-	FR-4.1	0.10	12	102	-	50.8	V-0	130	-	-
SU1504	SU1504	-	No ANSI	0.20	9	102	-	50.8	V-0	90	-	-
SU1603	SU1603	-	No ANSI	0.10	9	102	-	50.8	V-0	130	-	-
SU1609	SU1609	-	No ANSI	0.025	9	102	-	50.8	V-0	90	-	-

SU1611	SU1611	-	No ANSI	0.38	12	102	-	50.8	V-0	50	-	-
SU1804	SU1804	-	No ANSI	0.20	12	102	-	50.8	V-0	130	-	-
Synamic9N (ASP 1)												
	Synamic9N	-	No ANSI	0.38	12	102	-	50.8	V-0	130	260	6
Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides, furnished a												
Q100, Q100A, Q100B, Q100C, Q100D, Q100E, Q100F, Q100G												
	Q100	-	FR-4.0	0.38	12	102	-	50.8	V-0	130	-	-
				0.10	17	102	-	50.8	V-0	90	-	-
Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides, furnished a or tubes												
S1000HS	S1000HS	-	FR-4.0	0.38	12	102	-	50.8	V-0	130	-	-
S1000M, S1000H, Autolad1 (ASP 1)												
	S1000M, S1000H, Autolad1	-	FR-4.0	0.38	12	102	-	50.8	V-0	130	-	-
				0.38	17	102	-	50.8	V-0	130	260	6
S2155G	S2155	-	CEM-3.1	0.50	12	102	-	50.8	V-0	130	-	-
Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides,												
Q310	Q310	-	CEM-1	0.63	17	102	-	50.8	V-0	130	-	-
S1155GX	S1155GX	-	FR-4.1	0.03	12	102	-	50.8	V-0	105	-	-
				0.10	12	102	-	50.8	V-0	120	-	-
				0.20	12	102	-	50.8	V-0	130	-	-
SE80, SDI03, SDI03K, LSDI03K (ASP 1)												
	SE80, SDI03, SDI03K, LSDI03K	-	FR-4.1	0.20	9	102	-	50.8	V-0	130	260	6

Metal clad metal base industrial laminates:

			Metal		Dielectric		Clad Cond Thk			Max		Max	Assembly Solder		Solder Lts	
Metal Clad Dsg	**Lam-inate Dsg**	**Pre-preg Dsg**	**Min Thk (mm)**	**Max Thk (mm)**	**Min Thk (mic)**	**Max Thk (mic)**	**Min Ext (mic)**	**Max Ext (mic)**	**Max Int (mic)**	**Area Dia (mm)**	**Flame Class**	**Oper Temp (°C)**	**Process Temp(°C)**	**Process Cycles**	**Temp (°C)**	**Time (sec)**

Aluminum base with Epoxy (EP) and Phenolic dielectric, Metal clad industrial laminates with copper on one or both sides, furnished as sheets or rolls																
SAR15, SAR20, SAR20H, SAR30, STR15(e)																
	SAR15, SAR20, SAR20H, SAR30, STR15(e)	-	0.30		50	150	17	102	-	50.8	V-0	130	-	-	300	60
Anodized Aluminum base with Epoxy (EP) with glass fabric dielectric, Metal clad industrial laminates with copper on one or both sides, furnished as sheets or rolls																
SA115, SA120	SA115, SA120	-	0.30		70	200	12	140	-	50.8	V-0	90	-	-	300	60

Metal clad films:

			Film		Adhesive		Clad Cond Thk			Max		Max	Assembly Solder		Solder Lts	
Metal Clad Dsg	**Lam-inate Dsg**	**Pre-preg Dsg**	**Min Thk (mm)**	**Max Thk (mm)**	**Min Thk (mic)**	**Max Thk (mic)**	**Min Ext (mic)**	**Max Ext (mic)**	**Max Int (mic)**	**Area Dia (mm)**	**Flame Class**	**Oper Temp (°C)**	**Process Temp(°C)**	**Process Cycles**	**Temp (°C)**	**Time (sec)**
Polyimide (PI) (Adhesiveless) Metal clad films for use in single layer printed wiring boards with copper required on both sides, furnished as sheets or rolls																
DL	DL	-	0.009	0.050	-	-	9	70	-	50.8	VTM-0	130	-	-	288	10

Metal clad metal base industrial laminates:

			Metal		Dielectric		Clad Cond Thk			Max		Max	Assembly Solder		Solder	
Metal Clad Dsg	**Lam-inate Dsg**	**Pre-preg Dsg**	**Min Thk (mm)**	**Max Thk (mm)**	**Min Thk (mic)**	**Max Thk (mic)**	**Min Ext (mic)**	**Max Ext (mic)**	**Max Int (mic)**	**Area Dia (mm)**	**Flame Class**	**Oper Temp (°C)**	**Process Temp(°C)**	**Process Cycles**	**Temp (°C)**	**T (**
Aluminum or Copper base with Epoxy (EP) dielectric, Metal clad industrial laminates with copper required on both sides, furnished as sheets																
SAR25H,SCR25H, STR20 (k1)																
	SAR25H,SCR25H, STR20	-	0.30		35	150	12	102	-	50.8	V-0	150	-	-	300	

Metal clad films:

			Film		Adhesive		Clad Cond Thk			Max		Max	Assembly Solder		Solder Lts	
Metal Clad Dsg	**Lam-inate Dsg**	**Pre-preg Dsg**	**Min Thk (mm)**	**Max Thk (mm)**	**Min Thk (mic)**	**Max Thk (mic)**	**Min Ext (mic)**	**Max Ext (mic)**	**Max Int (mic)**	**Area Dia (mm)**	**Flame Class**	**Oper Temp (°C)**	**Process Temp(°C)**	**Process Cycles**	**Temp (°C)**	**Time (sec)**
Polyimide (PI) (Adhesiveless) Metal clad films for use in single layer printed wiring boards with copper on one side only, furnished as sheets or rolls																
SL	SL	-	0.009	0.050	-	-	9	70	-	50.8	VTM-0	130	-	-	288	10

Metal clad metal base industrial laminates:

			Metal		Dielectric		Clad Cond Thk			Max		Max	Assembly Solder		Solder Lts	
Metal Clad Dsg	Lam-inate Dsg	Pre-preg Dsg	Min Thk (mm)	Max Thk (mm)	Min Thk (mic)	Max Thk (mic)	Min Ext (mic)	Max Ext (mic)	Max Int (mic)	Area Dia (mm)	Flame Class	Oper Temp (°C)	Process Temp(°C)	Process Cycles	Temp (°C)	Time (sec)
Aluminum or Copper base with Epoxy (EP) dielectric, Metal clad industrial laminates with copper on one side only, furnished as sheets																
SAR20HM, SCR20HM (k2)																
	SAR20HM, SCR20HM	-	0.30		35	150	12	102	-	50.8	V-0	150	-	-	300	60
			0.60		151	400	12	102	-	50.8	V-0	90	-	-	300	60
SAR20L, SCR20L, STR20L (j)																
	SAR20L, SCR20L, STR20L	-	0.30		50	150	12	102	-	50.8	V-0	90	-	-	288	60
Aluminum or Copper base with Epoxy (EP) dielectric, Metal clad industrial laminates with copper on one side only,																
SAR20LM, SCR20LM, STR20 (k1)																
	SAR20LM, SCR20LM, STR20	-	030		35	150	12	102	-	50.8	V-0	150	-	-	300	60
			060		151	400	12	102	-	50.8	V-0	90	-	-	300	60
Anodized Aluminum base with Epoxy (EP) blend dielectric, Metal clad industrial laminates with copper on one side only, furnished as sheets																
SAR10S, SAR15S, SAR20S, SAR30S																
	SAR10S, SAR15S, SAR20S, SAR30S	-	0.30		50	150	18	102	-	50.8	V-0	130	-	-	300	60
Copper base with Epoxy (EP) blend dielectric, Metal clad industrial laminates with copper on one side only, furnished as sheets																
SCR10S, SCR15S, SCR20S, SCR30S (i)																
	SCR10S, SCR15S, SCR20S, SCR30S	-	0.45		50	150	18	102	-	50.8	V-0	130	-	-	300	60
			0.60		50	300	18	102	-	50.8	V-0	130	-	-	300	60
Iron base with Epoxy (EP) blend dielectric, Metal clad industrial laminates with copper on one side only, furnished as sheets																
SFR10S, SFR15S, SFR20S, SFR30S																

	SFR10S, SFR15S, SFR20S, SFR30S	-	0.45		55	150	18	102	-	50.8	V-0	130	-	-	300	60

Metal clad industrial laminates:

Metal Clad Dsg	Lam-inate Dsg	Pre-preg Dsg	ANSI Type	Bld up Min Thk (mm)	Clad Cond Thk Min Ext (mic)	Clad Cond Thk Max Ext (mic)	Clad Cond Thk Max Int (mic)	Max Area Dia (mm)	Flame Class	Max Oper Temp (°C)	Assembly Solder Process Temp(°C)	Assembly Solder Process Cycles	Solder Lts Temp (°C)	Solder Lts Time (sec)
Epoxy (EP) Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both sides, furnished as sheets														
S1155 600	S1155 600	S0155 600	No ANSI	0.63	9	102	70	50.8	V-0	90	-	-	288	20
Epoxy (EP) Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets														
S1155 600	S1155 600	-	No ANSI	0.63	9	102	-	50.8	V-0	90	-	-	288	20
Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both sides, furnished as sheets														
S1145, S1150G, S1125, SI055W (ASP 1)														
	S1145, S1150G, S1125, SI055W	S1145B, S1150GB, S1125B, SI055WB	FR-4.1	0.10	12	102	68	50.8	V-0	130	-	-	288	20
				0.20	12	102	70	50.8	V-0	130	260	6	300	10
S7035, AeroWave 360														
	S7035, AeroWave 360	S7035B, AeroBond 360	FR-4.0	0.20	17	102	68	50.8	V-0	120	-	-	288	20
				0.38	17	102	68	50.8	V-0	130	-	-	288	20
S7036	S7036	S7036B	FR-4.0	0.20	17	102	68	50.8	V-0	120	-	-	288	20
				0.38	17	102	68	50.8	V-0	130	-	-	288	20
S7038V	S7038V	S7038VB	FR-4.0	0.20	17	102	68	50.8	V-0	120	-	-	288	20
				0.38	17	102	68	50.8	V-0	130	-	-	288	20
Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets														
S1145, S1150G, S1125, SI055W (ASP 1)														

	S1145, S1150G, S1125, SI055W	-	FR-4.1	0.10	12	102	-	50.8	V-0	130	-	-	288	20
				0.20	12	102	-	50.8	V-0	130	260	6	300	10
S7035, AeroWave 360														
	S7035, AeroWave 360	-	FR-4.0	0.20	17	102	-	50.8	V-0	120	-	-	288	20
				0.38	17	102	-	50.8	V-0	130	-	-	288	20
S7036	S7036	-	FR-4.0	0.20	17	102	-	50.8	V-0	120	-	-	288	20
				0.38	17	102	-	50.8	V-0	130	-	-	288	20
S7038V	S7038V	-	FR-4.0	0.20	17	102	-	50.8	V-0	120	-	-	288	20
				0.38	17	102	-	50.8	V-0	130	-	-	288	20

Metal clad films (Flammability Only Recognition):

			Film		Adhesive		Clad Cond Thk			Max		Max	Assembly Solder		Solder Lts	
Metal Clad Dsg	**Lam-inate Dsg**	**Pre-preg Dsg**	**Min Thk (mm)**	**Max Thk (mm)**	**Min Thk (mic)**	**Max Thk (mic)**	**Min Ext (mic)**	**Max Ext (mic)**	**Max Int (mic)**	**Area Dia (mm)**	**Flame Class**	**Oper Temp (°C)**	**Process Temp(°C)**	**Process Cycles**	**Temp (°C)**	**Time (sec)**
Polyimide (PI)/Perfluoroalkoxy(PFA) with adhesive Metal clad films for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets or rolls																
SF224 (Note 3)	SF224	-	0.039	0.039	-	-	-	-	-	-	V-0	-	-	-	288	10
			0.052	0.052	-	-	-	-	-	-	V-0	-	-	-	288	10
			0.075	0.075	-	-	-	-	-	-	V-0	-	-	-	288	10
			0.101	0.101	-	-	-	-	-	-	V-0	-	-	-	288	10
			0.126	0.126	-	-	-	-	-	-	V-0	-	-	-	288	10
			0.150	0.150	-	-	-	-	-	-	V-0	-	-	-	288	10

Metal clad industrial laminates (Flammability Only Recognition):

				Bld up	Clad Cond Thk			Max		Max	Assembly Solder		Solde
Metal Clad Dsg	**Lam-inate 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)**	**Process Temp(°C)**	**Process Cycles**	**Temp (°C)**
Copolymer Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both sides, furnished as sheets													

S7136H/S7136HB	S7136H	S7136HB	No ANSI	0.38	-	-	-	-	V-0	-	-	-	288
SU1402/SU1402B	SU1402	SU1402B	No ANSI	0.38	-	-	-	-	V-0	-	-	-	288
Copolymer Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets													
S7136H	S7136H	-	No ANSI	0.38	-	-	-	-	V-0	-	-	-	288
SU1402	SU1402	-	No ANSI	0.38	-	-	-	-	V-0	-	-	-	288
Epoxy Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides, furni as sheets													
ST220P	ST220P	-	No ANSI	0.50	-	-	-	-	V-0	-	-	-	288
Epoxy (EP) Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets													
S1135, S7546	S1135, S7546	-	No ANSI	0.05	-	-	-	-	V-0	-	-	-	288
S1155M	S1155M	-	No ANSI	0.03	-	-	-	-	V-0	-	-	-	288
SB170G	SB170G	-	No ANSI	0.05	-	-	-	-	V-0	-	-	-	288
Epoxy blend Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides furnished as sheets													
S5W, SI455W	S5W, SI455W	-	No ANSI	0.20	-	-	-	-	HB	-	-	-	288
Epoxy blend Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides furnished as sheets or rolls													
SU1610(h)	SU1610(h)	-	No ANSI	0.10	-	-	-	-	HB	-	-	-	288
Modified Polyimide Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or bot sides,													
SH260, SH260M/SH260B													
	SH260, SH260M	SH260B	No ANSI	0.20	-	-	-	-	HB	-	-	-	288
Polybutadiene/polystyrene copolymer Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets, rods or tubes													
S7136	S7136	-	No ANSI	0.16	-	-	-	-	V-0	-	-	-	288
Polyimide Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets													
SH260, SH260M	SH260, SH260M	-	No ANSI	0.08	-	-	-	-	HB	-	-	-	280

Polyimide blend Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both si furnished as sheets													
S1220, S7643	S1220, S7643	S1220B, S7643B	No ANSI	0.20	-	-	-	-	V-0	-	-	-	280
				0.38	-	-	-	-	V-0	-	-	-	280
				0.63	-	-	-	-	V-0	-	-	-	280
				1.60	-	-	-	-	V-0	-	-	-	280
SI10NF	SI10NF	SI10NFB	No ANSI	0.20	-	-	-	-	V-0	-	-	-	280
				0.38	-	-	-	-	V-0	-	-	-	280
				0.63	-	-	-	-	V-0	-	-	-	280
				1.60	-	-	-	-	V-0	-	-	-	280
SI64X, SI643, SI643U, SI643HU													
	SI64X, SI643, SI643U, SI643HU	SI64XB, SI643B, SI643UB, SI643HUB, SI643HB	No ANSI	0.20	-	-	-	-	V-0	-	-	-	280
				0.38	-	-	-	-	V-0	-	-	-	280
				0.63	-	-	-	-	V-0	-	-	-	280
				1.60	-	-	-	-	V-0	-	-	-	280
Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both sides, furnished as sheets													
S1151G	S1151G	S1151GB	FR-4.1	0.20	-	-	-	-	V-0	-	-	-	288
S25	S25	S25B	No ANSI	0.20	-	-	-	-	V-0	-	-	-	288
ST115, ST115D	ST115, ST115D	ST115B, ST115DB	FR-4.0	0.20	-	-	-	-	V-0	-	-	-	288
Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both sides, furnished as sheets or rolls													
SU1611/ SU1611B	SU1611	SU1611B	No ANSI	0.20	-	-	-	-	V-0	-	-	-	288
Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides, furnished a sheets													
S1151G	S1151G	-	FR-4.1	0.05	-	-	-	-	V-0	-	-	-	288
S1152G	S1152G	-	FR-4.1	0.05	-	-	-	-	V-0	-	-	-	288
S1165, SI546, S7542K													

	S1165, SI546, S7542K	-	No ANSI	0.05	-	-	-	-	V-0	-	-	-	300
S1170G, S7045GH	S1170G, S7045GH	-	FR-15.1	0.03	-	-	-	-	V-0	-	-	-	288
S1170M	S1170M	-	FR-4.0	0.06	-	-	-	-	V-0	-	-	-	288
S25	S25	-	No ANSI	0.20	-	-	-	-	V-0	-	-	-	288
S7438	S7438	-	No ANSI	0.10	-	-	-	-	V-0	-	-	-	288
SB120	SB120	-	No ANSI	0.05	-	-	-	-	V-0	-	-	-	288
ST115, ST115D	ST115, ST115D	-	FR-4.0	0.20	-	-	-	-	V-0	-	-	-	288
SU1305	SU1305	-	FR-4.1	0.03	-	-	-	-	V-0	-	-	-	288
SU1611	SU1611	-	No ANSI	0.20	-	-	-	-	V-0	-	-	-	288

Metal clad metal base industrial laminates (Flammability Only Recognition):

			Metal		Dielectric		Clad Cond Thk			Max		Max	Assembly Solder		Solder Lts	
Metal Clad Dsg	Lam-inate Dsg	Pre-preg Dsg	Min Thk (mm)	Max Thk (mm)	Min Thk (mic)	Max Thk (mic)	Min Ext (mic)	Max Ext (mic)	Max Int (mic)	Area Dia (mm)	Flame Class	Oper Temp (°C)	Process Temp(°C)	Process Cycles	Temp (°C)	Time (sec)
Aluminum base with Epoxy (EP) and Phenolic dielectric, Metal clad industrial laminates with copper on one side only, furnished as sheets or rolls																
SA110L	SA110L	-	0.30		70	200	-	-	-	-	V-0	-	-	-	288	20

Bonding film unsupported (Freefilms):

Mtl Dsg	Color	Min Thk (mic)	Max Thk (mic)	Flame Class
Bonding film unsupported (Freefilms) for use in printed wiring boards, furnished as sheets				
SF206B	NC	10	50	-
SF315B	NC	10	50	-

Coverlay:

		Film		Adhesive		
Mtl Dsg	Color	Min Thk (mm)	Max Thk (mm)	Min Thk (mic)	Max Thk (mic)	Flame Class
Polyamide-imide film with Epoxy (EP) adhesive Coverlays for use in flexible printed wiring boards, furnished as sheets or rolls						

SF215C	BK	0.003	0.007	5	30	VTM-0
Polyimide (PI) film with Epoxy (EP) adhesive Coverlays for use in flexible printed wiring boards, furnished as sheets or rolls						
SF202C	NC	0.0075	0.012	5	50	VTM-0
	NC	0.0125	0.050	12.5	50	V-0
SF303C (Note 2)	WT	0.0205	0.075	15	50	V-0
SF305C	NC	0.0075	0.012	5	50	VTM-0
	NC	0.0125	0.050	12.5	50	V-0
SF315C	NC (BK)	0.007	0.012	5	100	VTM-0
	NC (BK)	0.0125	0.050	12.5	100	V-0
SF325C	NC	0.010	0.05	5	12.4	VTM-0
	NC	0.0125	0.05	12.5	60	V-0
SF335C	NC	0.0075	0.0124	5	15	VTM-0
	NC	0.0125	0.050	12.5	50	V-0
Polyimide (PI) film with Epoxy (EP) and nitrile adhesive Coverlays for use in flexible printed wiring boards, furnished as sheets or rolls						
SF345C	BK	0.0055	0.050	5	19	VTM-0
	BK	0.0055	0.050	19.5	60	V-0
with adhesive Coverlays for use in flexible printed wiring boards, furnished as sheets						
SF206C	NC	0.0125	0.024	10	50	VTM-0
	NC	0.025	0.050	10	50	V-0
SF302C	NC	0.0125	0.025	12.5	35	V-0

Investigated flex package combinations:

		Film		Adhesive		Copper	
Category	**Grade**	**Min Thk (mm)**	**Max Thk (mm)**	**Min Thk (mic)**	**Max Thk (mic)**	**Min Thk (mic)**	**Max Thk (mic)**
SF202/SF315C							
Flame Class: V-0; Max Oper Temp (°C): 130; Solder Limit Temp (°C): 300; Solder Limit Time (sec): 10							
Base film	SF202	0.0125	0.050	-	-	6	70
Coverlay	SF315C	0.0075	0.05	5	50	-	-
SF212/SF202C							
Flame Class: V-0; Max Oper Temp (°C): 150; Solder Limit Temp (°C): 300; Solder Limit Time (sec): 10							
Base film	SF212	0.0125	0.0125	-	-	6	70
Base film	SF212	0.020	0.020	-	-	6	70

Base film	SF212	0.025	0.025	-	-	6	70
Base film	SF212	0.050	0.050	-	-	6	70
Coverlay	SF202C	0.0075	0.05	5	50	-	-
SF212/SF315C							
Flame Class: V-0; Solder Limit Temp (°C): 300; Solder Limit Time (sec): 10							
Base film	SF212	0.0125	0.0125	-	-	-	-
Base film	SF212	0.020	0.020	-	-	-	-
Base film	SF212	0.025	0.025	-	-	-	-
Base film	SF212	0.050	0.050	-	-	-	-
Coverlay	SF315C	0.0075	0.05	5	50	-	-
SF305/SF305C							
Flame Class: V-0; Max Oper Temp (°C): 130; Solder Limit Temp (°C): 288; Solder Limit Time (sec): 10							
Base film	SF305	0.0125	0.050	10	25	12	102
Coverlay	SF305C	0.0075	0.050	5	50	-	-

- # will be replaced by one letter A~Z.

$ - Multilayer Recognition shall start from minimum thickness of 0.63mm

(ASP 1) - Assembly solder process evaluated to IPC-TM-650, 2.6.27 Thermal Stress Assembly Simulation.

(C) - Identical to the S1000 family.

(d) - Alternate solder limits: 6 cycles max.: 25-183C @ 2C/sec.; 183-260-183C @ 1.3C/sec. (120 sec. total); 183-25C @ 3C/sec.

(e) - STR15 is shipped as a B-stage insulation sheet [Resin coated copper (RCC) foil] without being adhered to a metal substrate. PWB manufacturer must adhere to Aluminum metal base as specified, within thickness range Recognized.

(h) - Thickness is 0.10 mm ONLY

(i) - Employs the same dielectric as SAR10S family

(j) - Alternate Shipping Form : SAR20L is Aluminum metal based laminate; SCR20L is Copper metal based laminate; STR20L is B-stage insulation sheet with copper and without being adhered to a metal substrate, PWB manufacturer must adhere to Aluminum or Copper base metal as specified, within thickness range Recognized.

(k1) - Alternate Shipping Form: SAR20LM is single sided copper cladding Aluminum metal based laminate; SCR20LM is single sided copper cladding Copper metal based laminate; SAR25H is double sided copper cladding Aluminum metal based laminate; SCR25H is double sided copper cladding Copper metal based laminate; STR20 is B-stage insulation sheet with copper cladding and without being adhered to a metal substrate, PWB manufacturer must adhere to Aluminum base metal as specified, within thickness range Recognized.

(k2) - Alternate Shipping Form: SAR20HM is single sided copper cladding Aluminum metal based laminate; SCR20HM is single sided copper cladding Copper metal based laminate.

(Note 1) - Thickness is limited to 0.20 mm maximum.

(Note 2) - The film thickness for Grade SF303C includes a nominal thickness of white coating applied to the exposed side of the PI film. SF303C are always shipped with this coating.

(Note 3) - Base film SF224 is constructed by PI film on both side surface and PFA film inside core. PFA film will never be exposed to external and shipped out separately.

(Note 4) - Thickness is limited to 0.38 mm maximum.

Marking: Company name or trademark  and model designation.