



UL Recognition Base Material for PCB

Type Designation	Grade	Direct Support	Material	Laminate Maker & UL File Number
1BHB	XPC	YES	R-6710, R6715	Panasonic (E81336)
1HB	XPC	YES	CCP-3000	Chang Chun Plastic (E108591)
1HB	XPC	YES	CCP-3610	Chang Chun Plastic (E108591)
1HB	XPC	YES	DS-1125	Doosan Co. Ltd. (E103670)
1HB	XPC	YES	ETL-XPC-601	Eternal Chemical (E95862)
1AHB	XPC	YES	KB-1150	Kingboard Laminate (E123995)
1AV0	FR-1	YES	DS-1108	Doosan Co. Ltd. (E103670)
1AV0	FR-1	YES	ETL-XPC-207	Eternal Chemical (E95862)
1AV0	FR-1	YES	KB-3151C	Kingboard Laminate (E123995)
1AV0	FR-1	YES	R-8700	Panasonic (E81336)
1AV0	FR-1	YES	KH-111F	Yat Tao (E167840)
1SV0	FR-1	YES	NS-6732CT	Neoplanix (E65931)
1SV0	FR-1	YES	KB-3151C	Kingboard Laminate (E123995)
1SV0	FR-1	YES	KH-111FN	Yat Tao (E167840)
1V0	FR-1	YES	CCP-3400	Chang Chun Plastic (E108591)
1V0	FR-1	YES	CCP-6400	Chang Chun Plastic (E108591)
1V0	FR-1	YES	DS-1107, DS-1107S	Doosan Co. Ltd. (E103670)
1V0	FR-1	YES	DS-1107A	Doosan Co. Ltd. (E103670)
1V0	FR-1	YES	ETL-XPC-204	Eternal Chemical (E95862)
1V0	FR-1	YES	ETL-XPC-207	Eternal Chemical (E95862)
1V0	FR-1	YES	ETL-XPC-801	Eternal Chemical (E95862)
1V0	FR-1	YES	MCL-437FB, MCL-437FX, MCL-437-FRX, MCL-437-FPEX	Hitachi (E80148)
1V0	FR-1	YES	MCL-432F, MCL-437G	Hitachi (E80148)
1V0	FR-1	YES	NS-6732, NS-6737	Neoplanix (E65931)
1V0	FR-1	YES	KB-3151	Kingboard Laminate (E123995)
1V0	FR-1	YES	KB-3151C	Kingboard Laminate (E123995)
1V0	FR-1	YES	KB-3152	Kingboard Laminate (E123995)
1V0	FR-1	YES	PLC-2147	Sumitomo Bakelite (E95831)
1+V0	FR-1	YES	NS-6732CT, NS-6737CT	Neoplanix (E65931)
1UAV0	FR-1	YES	CC-3730	Ching Kuang (E80513)
1UAV0	FR-1	YES	DS-1108	Doosan Co. Ltd. (E103670)
1UAV0	FR-1	YES	ETL-XPC-207	Eternal Chemical (E95862)
1UAV0	FR-1	YES	KB-3150	Kingboard Laminate (E123995)
1UAV0	FR-1	YES	R-8700	Panasonic (E81336)
1UAV0	FR-1	YES	KH-111F	Yat Tao (E167840)
1USV0	FR-1	YES	NS-6732CT	Neoplanix (E65931)
1UV0	FR-1	YES	CCP-3400	Chang Chun Plastic (E108591)
1UV0	FR-1	YES	CCP-6400	Chang Chun Plastic (E108591)
1UV0	FR-1	YES	CC-3710	Ching Kuang (E80513)
1UV0	FR-1	YES	CC-3730	Ching Kuang (E80513)



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1UV0	FR-1	YES	DS-1107, DS-1107S	Doosan Co. Ltd. (E103670)
1UV0	FR-1	YES	DS-1107A	Doosan Co. Ltd. (E103670)
1UV0	FR-1	YES	ETL-XPC-204	Eternal Chemical (E95862)
1UV0	FR-1	YES	ETL-XPC-207	Eternal Chemical (E95862)
1UV0	FR-1	YES	ETL-XPC-801	Eternal Chemical (E95862)
1UV0	FR-1	YES	MCL-437FB, MCL-437FX, MCL-437-FRX, MCL-437-FPEX	Hitachi (E80148)
1UV0	FR-1	YES	MCL-432F, MCL-437G	Hitachi (E80148)
1UV0	FR-1	YES	KB-3151	Kingboard Laminate (E123995)
1UV0	FR-1	YES	NS-6732, NS-6737	Neoplanix (E65931)
1UV0	FR-1	YES	PLC-2147	Sumitomo Bakelite (E95831)
1U+V0	FR-1	YES	NS-6732CT, NS-6737CT	Neoplanix (E65931)
AV0	FR-2	YES	CCP-7400	Chang Chun Plastic (E108591)
AV0	FR-2	YES	CCP-8400	Chang Chun Plastic (E108591)
AV0	FR-2	YES	CC-3700	Ching Kuang (E80513)
AV0	FR-2	YES	DS-1202G	Doosan Co. Ltd. (E103670)
AV0	FR-2	YES	ETL-FR2-302	Eternal Chemical (E95862)
AV0	FR-2	YES	ETL-FR2-307	Eternal Chemical (E95862)
AV0	FR-2	-	NS-6704CT, NS-6709CT	Neoplanix (E65931)
AV0	FR-2	YES	PLC-2347	Sumitomo Bakelite (E95831)
3AV0	CEM-3	YES	CCP-308	Chang Chun Plastic (E108591)
3AV0	CEM-1	YES	CCP-508	Chang Chun Plastic (E108591)
3AV0	CEM-1	YES	CCP-518	Chang Chun Plastic (E108591)
3AV0	CEM-3	YES	S2130	Guangdong Shengyi (E109769)
3AV0	CEM-3	YES	S2155	Guangdong Shengyi (E109769)
3AV0	CEM-1	YES	S3110	Guangdong Shengyi (E109769)
3AV0	CEM-1	YES	KB-5150	Kingboard Laminate (E123995)
3AV0	CEM-3	YES	KB-7150	Kingboard Laminate (E123995)
3AV0	CEM-3	YES	R-1781, R-1786	Panasonic (E81336)
3AV0	CEM-3	YES	CEM-3-86, UV Block CEM-3-86	Nan Ya Plastic (E98983)
3AV0	CEM-3	YES	CEM-3-92, UV Block CEM-3-92	Nan Ya Plastic (E98983)
3AV0	CEM-3	YES	CEM-3-92PY, CEM-3-10	Nan Ya Plastic (E98983)
3AV0	CEM-3	YES	ELC-4970GS	Sumitomo Bakelite (E95831)
3AV0	CEM-3	YES	ELC-4970R&S, ELC-9600	Sumitomo Bakelite (E95831)
3AV0	CEM-3	YES	ELC-4972R&S, ELC-9601, ELC-4973R&S, ELC-9753	Sumitomo Bakelite (E95831)
3AV0	CEM-3	YES	R-1787	Panasonic (E81336)
3AV0	CEM-3	YES	R-1780, R-1785	Panasonic (E81336)
1BV0	FR-1	YES	DS-1108	Doosan Co. Ltd. (E103670)
1BV0	FR-1	YES	R-8700, R-8705	Panasonic (E81336)
3SAV0	CEM-1	YES	P-121	Pacific Insulating (E115974)
3TAV0	CEM-3	YES	JL-3C	Jiangsu Lianxin (E176891)
3+AV0	CEM-1	YES	JL-1C	Jiangsu Lianxin (E176891)



Type Designation	Grade	Direct Support	Material	Laminate Maker & UL File Number
3HAV0	CEM-3	YES	CEM-3-98, CEM-3-86PY	Nan Ya Plastic (E98983)
4AV0	FR-4.0	YES	S1141	Shengyi (E109769)
4AV0	FR-4.0	YES	S1600	Shengyi (E109769)
4AV0	FR-4.0	YES	IT-140TC	ITEQ (E178114)
4AV0	FR-4.0	YES	KB-6150	Kingboard Laminate (E123995)
4AV0	FR-4.0	YES	KB-6160, KB-6164	Kingboard Laminate (E123995)
4AV0	FR-4.0	YES	KB-6160C	Kingboard Laminate (E123995)
4AV0	FR-4.0	YES	EEL-145	Kingboard Laminate (E123995)
4AV0	FR-4.0	YES	FR-4-11PYR, FR-4-11PYTL	Nan Ya Plastic (E98983)
4AV0	FR-4.0	YES	FR-4-86, FR-4-TL, UV Block FR-4-86	Nan Ya Plastic (E98983)
4AV0	FR-4.0	YES	ELC-9240, ELC-4756, ELC-4760, ELC-4762(W), ELC-4762(UVW)	Sumitomo Bakelite (E95831)
4HAV0	FR-4.0	YES	FR-4-98, FR-4-86PY, NP-140TLPY	Nan Ya Plastic (E98983)
4SAV0	FR-4.0	YES	IT-140TC	ITEQ (E178114)
4GAV0	FR-4.0	YES	FR-4-86, UV Block FR-4-86	Nan Ya Plastic (E98983)
4GAV0	FR-4.0	YES	KB-6160, KB-6164	Kingboard Laminate (E123995)
4GAV0	FR-4.0	YES	KB-6160C	Kingboard Laminate (E123995)
4GAV0	FR-4.0	YES	EEL-145	Kingboard Laminate (E123995)
2ARHB	XPC	-	KB-1150	Kingboard Laminate (E123995)
2ARV0	FR-1	-	DS-1108	Doosan Co. Ltd. (E103670)
2ARV0	FR-1	-	ETL-XPC-207	Eternal Chemical (E95862)
2ARV0	FR-1	-	KH-111F	Yat Tao (E167840)
2BRHB	XPC	-	R-6710, R6715	Panasonic (E81336)
2BRV0	FR-1	-	DS-1108	Doosan Co. Ltd. (E103670)
2BRV0	FR-1	-	R-8700, R-8705	Panasonic (E81336)
2RHB	XPC	-	CCP-3000	Chang Chun Plastic (E108591)
2RHB	XPC	-	DS-1125	Doosan Co. Ltd. (E103670)
2RHB	XPC	-	ETL-XPC-601	Eternal Chemical (E95862)
2RV0	FR-1	-	CCP-3400	Chang Chun Plastic (E108591)
2RV0	FR-1	-	CCP-6400	Chang Chun Plastic (E108591)
2RV0	FR-1	-	DS-1107, DS-1107S	Doosan Co. Ltd. (E103670)
2RV0	FR-1	-	D-1107A	Doosan Co. Ltd. (E103670)
2RV0	FR-1	-	ETL-XPC-204	Eternal Chemical (E95862)
2RV0	FR-1	-	ETL-XPC-801	Eternal Chemical (E95862)
2RV0	FR-1	-	NS-6732, NS-6737	Neoplanix (E65931)
2RV0	FR-1	-	MCL-437FB, MCL-437FX, MCL-437-FRX, MCL-437-FPEX	Hitachi (E80148)
2RV0	FR-1	-	MCL-432F, MCL-437G	Hitachi (E80148)
2RV0	FR-1	-	PLC-2147	Sumitomo Bakelite (E95831)
2RV0	FR-1	-	KB-3151C	Kingboard Laminate (E123995)
2SRV0	FR-1	-	NS-6732CT	Neoplanix (E65931)
2+RV0	FR-1	-	NS-6732CT, NS-6737CT	Neoplanix (E65931)
3ARHB	XPC	-	KB-1150	Kingboard Laminate (E123995)



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3BRHB	XPC	-	CCP-3000	Chang Chun Plastic (E108591)
3BRHB	XPC	-	DS-1125	Doosan Co. Ltd. (E103670)
3BRHB	XPC	-	ETL-XPC-601	Eternal Chemical (E95862)
3BRHB	XPC	-	R-6710, R6715	Panasonic (E81336)
3BRV0	CEM-3	-	CCP-308	Chang Chun Plastic (E108591)
3BRV0	CEM-1	-	CCP-508	Chang Chun Plastic (E108591)
3BRV0	CEM-1	-	CCP-518	Chang Chun Plastic (E108591)
3BRV0	CEM-1	-	KB-5150	Kingboard Laminate (E123995)
3BRV0	FR-4	-	KB-6150	Kingboard Laminate (E123995)
3BRV0	CEM-3	-	KB-7150	Kingboard Laminate (E123995)
3BRV0	CEM-3	-	CEM-3-86, UV Block CEM-3-86	Nan Ya Plastic (E98983)
3BRV0	CEM-3	-	CEM-3-92, UV Block CEM-3-92	Nan Ya Plastic (E98983)
3BRV0	CEM-3	-	ELC-4970GS	Sumitomo Bakelite (E95831)
3BRV0	CEM-3	-	ELC-4970R&S, ELC-9600	Sumitomo Bakelite (E95831)
3BRV0	CEM-3	-	ELC-4972R&S, ELC-9601	Sumitomo Bakelite (E95831)
3BRV0	CEM-3	-	R-1081, R-1781, R-1786	Panasonic (E81336)
3RV0	FR-1	-	CCP-3400	Chang Chun Plastic (E108591)
3RV0	FR-1	-	CCP-6400	Chang Chun Plastic (E108591)
3RV0	FR-1	-	DS-1107, DS-1107S	Doosan Co. Ltd. (E103670)
3RV0	FR-1	-	DS-1107A	Doosan Co. Ltd. (E103670)
3RV0	FR-1	-	ETL-XPC-204	Eternal Chemical (E95862)
3RV0	FR-1	-	ETL-XPC-801	Eternal Chemical (E95862)
3RV0	FR-1	-	MCL-437FB, MCL-437FX, MCL-437-FRX, MCL-437-FPEX	Hitachi (E80148)
3RV0	FR-1	-	MCL-432F, MCL-437G	Hitachi (E80148)
3RV0	FR-1	-	NS-6732, NS-6737	Neoplanix (E65931)
3RV0	FR-1	-	PLC-2147	Sumitomo Bakelite (E95831)
3SBRV0	CEM-1	-	P-121	Pacific Insulating (E115974)
3SRV0	FR-1	-	NS-6732CT	Neoplanix (E65931)
3TBRV0	CEM-3	-	JL-3C	Jiangsu Lianxin (E176891)
3+BRV0	CEM-1	-	JL-1C	Jiangsu Lianxin (E176891)
3+RV0	FR-1	-	NS-6732CT, NS-6737CT	Neoplanix (E65931)
4ARHB	XPC	-	KB-1150	Kingboard Laminate (E123995)
4BRHB	XPC	-	R-6710, R6715	Panasonic (E81336)
4BRV0	FR-4.0	-	IT-140TC	ITEQ (E178114)
4BRV0	FR-4.0	-	KB-6160, KB-6164	Kingboard Laminate (E123995)
4BRV0	FR-4.0	-	FR-4-86, FR-4-TL, UV Block FR-4-86	Nan Ya Plastic (E98983)
4BRV0	FR-4.0	-	VT-41TC, VT-42TC, VT-45TC	Ventec (E214381)
4RHB	XPC	-	CCP-3000	Chang Chun Plastic (E108591)
4RHB	XPC	-	DS-1125	Doosan Co. Ltd. (E103670)
4RHB	XPC	-	ETL-XPC-601	Eternal Chemical (E95862)
4RV0	FR-1	-	CCP-3400	Chang Chun Plastic (E108591)
4RV0	FR-1	-	CCP-6400	Chang Chun Plastic (E108591)



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4RV0	FR-1	-	DS-1107, DS-1107S	Doosan Co. Ltd. (E103670)
4RV0	FR-1	-	DS-1107A	Doosan Co. Ltd. (E103670)
4RV0	FR-1	-	ETL-XPC-204	Eternal Chemical (E95862)
4RV0	FR-1	-	ETL-XPC-801	Eternal Chemical (E95862)
4RV0	FR-1	-	NS-6732, NS-6737	Neoplanix (E65931)
4RV0	FR-1	-	MCL-437FB, MCL-437FX, MCL-437-FRX, MCL-437-FPEX	Hitachi (E80148)
4RV0	FR-1	-	MCL-432F, MCL-437G	Hitachi (E80148)
4RV0	FR-1	-	PLC-2147	Sumitomo Bakelite (E95831)
4SRV0	FR-1	-	NS-6732CT	Neoplanix (E65931)
4+RV0	FR-1	-	NS-6732CT, NS-6737CT	Neoplanix (E65931)
5ARV0	FR-1	-	DS-1108	Doosan Co. Ltd. (E103670)
5ARV0	FR-1	-	ETL-XPC-207	Eternal Chemical (E95862)
5ARV0	FR-1	-	KH-111F	Yat Tao (E167840)
5BRV0	FR-1	-	DS-1108	Doosan Co. Ltd. (E103670)
5BRV0	FR-1	-	R-8700, R-8705	Panasonic (E81336)
6ARV0	FR-1	-	DS-1108	Doosan Co. Ltd. (E103670)
6ARV0	FR-1	-	ETL-XPC-207	Eternal Chemical (E95862)
6ARV0	FR-1	-	KH-111F	Yat Tao (E167840)
6BRV0	FR-1	-	DS-1108	Doosan Co. Ltd. (E103670)
6BRV0	FR-1	-	R-8700, R-8705	Panasonic (E81336)
BRV0	FR-2	-	CCP-7400	Chang Chun Plastic (E108591)
BRV0	FR-2	-	CCP-8400	Chang Chun Plastic (E108591)
BRV0	FR-2	-	DS-1202G	Doosan Co. Ltd. (E103670)
BRV0	FR-2	-	NS-6704CT, NS-6709CT	Neoplanix (E65931)
T3V0	CEM-1	-	DS-7106	Doosan Co. Ltd. (E103670)
T3V0	CEM-1	-	DS-7106A	Doosan Co. Ltd. (E103670)
T3V0	CEM-3	-	DS-7209	Doosan Co. Ltd. (E103670)
T3V0	CEM-3	-	DS-7209A	Doosan Co. Ltd. (E103670)
T3V0	CEM-1	-	CCP-508	Chang Chun Plastic (E108591)
T3V0	CEM-3	-	CCP-308	Chang Chun Plastic (E108591)
T3V0	CEM-3	-	S2130	Guangdong Shengyi (E109769)
T4V0	FR-4	-	IT-140TC	ITEQ (E178114)
ML1	FR-4.0	YES	DS-7405, DS-7405\$\$ / DS-7405-BS	Doosan Co. Ltd. (E103670)
ML2	FR-4.1	YES	DS-7402 / DS-7402-BS	Doosan Co. Ltd. (E103670)
ML2	FR-4.0	YES	DS-7408 / DS-7408-BS	Doosan Co. Ltd. (E103670)
ML2	FR-4.0	YES	NP-140R, NP-140TL, NP-140MR, NP-140MTL / NP-140B, NP-140MB	Nan Ya Plastic (E98983)
ML2	FR-4.1	YES	NPG-R, NPG-TL, NPG-170R, NPG-170TL / NPG-B, NPG-170B	Nan Ya Plastic (E98983)
ML2	FR-4.0	YES	TU-621, TU-622, TU-721, TU-722, TU-622-UV, TU-622-CR, TU-622-LE, TU-722-8 / TU-62P, TU-72P, TU-62P-UV, TU-62P-CR, TU-62P-LE, TU-72P-8	Taiwan Union (E189572)



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ML2	FR-4.0	YES	UP-TL, UP-001, UP-001TC / UP-P, UP-001P, UP-001PTC	Uniplus (E166524)
ML2	FR-4.0	YES	R-1761, R-1762, R-1766, R-1767, R-1768 / R-1661	Panasonic (E81336)
ML2	FR-4.1	YES	R-1561, R-1562, R-1566, R-1567, R-1568 / R-1551	Panasonic (E81336)
ML2A	FR-4.0	YES	IT-140TC, IT-150TC / IT-140BS, IT-150BS	ITEQ (E178114)
ML3	FR-4.0	YES	DS-7409 / DS-7409-BS	Doosan Co. Ltd. (E103670)
ML2B	FR-4.0	YES	NP-140TL / NP-140B	Nan Ya Plastic (E98983)
ML2B	FR-4.0	YES	R-1766 / R-1661	Panasonic (E81336)
ML2B	FR-4.1	YES	NPG-TL / NPG-B	Nan Ya Plastic (E98983)
ML2B	FR-4.1	YES	R-1561 / R-1551	Panasonic (E81336)
ML2B	FR-4.0	YES	FR-4-11PYR, FR-4-11PYTL / FR-4-11PYB	Nan Ya Plastic (E98983)
ML2B	FR-4.0	YES	EL-3765/EI-6765	Sumitomo Bakelite (E95831)
ML2B	FR-4.0	YES	EL-3765CF, EL-3784CF / EI-6765CE, EI-6784CF	Sumitomo Bakelite (E95831)
ML2B	FR-4.1	YES	NPGN-150PYR, NPGN-150PYTL / NPGN-150PYB	Nan Ya Plastic (E98983)
ML2C	FR-4.0	YES	NP-140TL/NP-140B	Nan Ya Plastic (E98983)
ML2D	FR-4.0	YES	EL-3765/EI-6765	Sumitomo Bakelite (E95831)
ML2D	FR-4.0	YES	EL-3765/EI-6765CF, EI-6784CF	Sumitomo Bakelite (E95831)
ALDS1	-	-	DST-5000	Doosan (E103670)
ALPT1	-	YES	TCB-2AL	Polytronics (E312082)
ALVE1	-	YES	VT-4A2	Ventec (E214381)
ALNP1	-	-	NPMRA	Nan Ya Plastic (E98983)