

Material Specifications & Laminate Table of Properties



Material specifications for our Vectorbord products beginning on page 53:

Board Type	Phenolic P/N Suffix 'XXXP'		Epoxy Glass P/N Suffix 'WE'		Epoxy Glass Composite No P/N Suffix	
Description	Unclad	1 oz. Copper Clad 1 Side	Unclad	1 oz. Copper Clad 1 Side	Unclad	1 oz. Copper Clad 1 Side
Overall Board Thickness	.062" NOM.	.062" NOM.	.062" NOM.	.062" NOM.	.062" NOM.	.062" NOM.
Copper Clad Thickness Each Side (N)		.0014 (1 oz.)		.0014 (1 oz.)		.0014 (1 oz.)
Max Electrical Temperature	221°F (105°C)	221°F (105°C)	266°F (130°C)	266°F (130°C)	266°F (130°C)	266°F (130°C)
NEMA Grade	FR-2	FR--2	FR-4	FR-4	CEM-1	CEM-1
UL-Flammability Classification			94V-0	94V-0	94V-0	94V-0
MIL-STD			MIL I-24768/27 GEE-F	MIL I-24768/27 GEE-F		

Vectorbord® Circbord™ and Plugbord™ protoboards cannot be rated for voltage & current because of the many applications/conditions, variations, and devices that can be used.

KB-6167 Hi-Temperature Laminate High Tg FR-4 ('HT' P/N Suffix)

Stability is the same as standard FR-4 material but High Tg to 170°C, UL File Number E123995, flame rating 94V-0.

Our Los Angeles manufacturing facility is fully equipped for board assembly, integration and testing, in addition to in-house metal fabrication

VectorPak(TM) CG3, CG4 series card guides, retainers and levers Vicat softening temperature (VST) is 146°C

Manufacturing and Quality Control Standards

Standard	Description
MIL-STD-810E	Mechanical Assembly & Test
MIL-STD-461D, E	Shock/Vibration; EMI/RFI
IPC-610D & E	Board fabrication and assembly, solderability

Bus and P.C. Board Standards

Standard	Description
IEEE1014	VME
IEC821	VME
IEEE796	Multibus I
IEEE1296	Multibus II
IEEE1096	VSB
IEEE1155	VXI
IEEE996	PC/AT
PCX1901	EISA
PCXI	PCXI Consortium
IEEE1101	Mechanical core requirements, VME, Multibus II
IEEE1101.10	Mechanical requirements, insertion and extraction
IEEE1101.11	Mechanical requirements, rear card entry
IEEE297.3	Mechanical core subracks
DIN41494	Mechanical core, subrack front panels
DIN41612	DIN connectors, 96 pin
IEC603-2	DIN connectors, 96 pin
ANSI/EIA RS-310-C	Subracks/front panels, 19 in.
IEEE961	STD

