



FR4 Data Sheet :-

| <u>Test/Specification</u> | <u>FR4 Laminate Typical Values</u> |
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| Thermal Stress, Solder bath 288 deg. C | >60 |
| Dimensional Stability, E-2/150 | <0.04% Warp/fill |
| | <1.00% Bow/Twist |
| Flammability, Classification UL94 | V0 |
| Water Absorption E-1/105 | 0.10% |
| Peel Strength After Thermal Stress | 11 lb./in After 10s/288 Deg. C |
| Flexural Strength | 100,000 lbf/in ² Lengthwise |
| | 75,000 lbf/in ² Crosswise |
| Resistivity After Damp Heat Volume | 10 ⁸ M ohms cm |
| Resistivity After Damp Heat Surface | 10 ⁸ M ohms |
| Dielectric Breakdown. Parallel to laminate | >60KV |
| Dielectric Constant @ 1MHz | 4.7 |
| Dissipation Factor @ 1MHz | 0.014 |
| Q-Resonance @ 1 MHz | >75 |
| Q-Resonance @ 50 MHz | >95 |
| Arc Resistance | 125 s |
| Glass Transition Temperature | 135 Deg. C |
| Temperature Index | 130 Deg. C |
| A Few Other Relevant Facts from other Sources | |
| Specific Gravity | 1.8-1.9 |
| Rockwell Hardness (M scale) | 110 |
| Coefficient of Thermal Expansion | 11 microns/m/Deg.C Lengthwise |
| | 15 microns/m/Deg.C Crosswise |
| Thermal Conductivity | 2.2-2.5 cal/h. cm Deg C |