## HA50（铝基板）

### 主要性能 Main property

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| 热阻* 
Note 1 
thermal resistance | ASTM E1461 | K·m²/W | <1.0 | 0.77 | | | | | |
| | | | <0.7 | 0.61 | | | | | |
| | | | <0.5 | | | | | | |
| | | | <0.4 | | | | | | |
| 热导率* 
Note 1 
Thermal Conductivity | ASTM E1461 | W/m.K | ≥1.0 | 1.1 | | | | | |
| | | | ≥1.5 | 1.6 | | | | | |
| | | | ≥2.0 | 2.2 | | | | | |
| | | | ≥3.0 | 3.0 | | | | | |
| 剥离强度 1OZ 
Peel Strength | 热应力前 | N/mm | ≥1.2 | 1.82 | 1.83 | 1.80 | 1.75 | 1.75 | 1.76 |
| | 热应力后 | | | 1.75 | 1.73 | 1.76 | | | |
| 热应力 
Thermal Stress | 288℃, solder dip | S | ≥120 | | | | | | |
| | 300℃ 10s cycle solder dip | Cycle | ≥6次 | 180S No delamination | | | | | |
| 表面电阻 
Surface Resistivity | C96/35/90 | MΩ | ≥10¹ | 10³ | 10⁴ | 10⁵ | 10⁶ | 10⁷ | 10⁸ |
| | E-24/125 | | ≥10⁵ | 10⁷ | 10⁹ | 10¹⁰ | 10¹² | 10¹⁴ | 10¹⁶ |
| 体积电阻 
Volume Resistivity | C96/35/90 | MΩ·cm | ≥10⁶ | 10⁸ | 10¹⁰ | 10¹² | 10¹⁴ | 10¹⁶ | 10¹⁸ | 10²⁰ |
| | E-24/125 | | ≥10¹⁰ | 10¹² | 10¹⁴ | 10¹⁶ | 10¹⁸ | 10²⁰ | 10²² | 10²⁴ |
| 击穿电压（AC） 
Dielectric Breakdown | *Note 2 空气环境 | KV | ≥3 | 100μm | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 |
| | | | ≥4 | 125μm | 5.0 | 5.0 | 5.0 | | |
| | | | ≥5 | 150μm | 6.0 | 6.0 | 6.0 | | |
| 介电常数 (1MHz) 
Dielectric Constant | C 24/23/50 | - | - | 5.1 | 5.3 | 5.5 | 5.8 | | |
| | | | | | | | | | |
| 耐电弧 
Arc Resistance | D48/50+D0.5/23 | S | ≥60 | 120 | 120 | 120 | 120 | 120 | 120 |
| | | | | | | | | | |
| 燃烧性 
Flammability | E-24/125 | - | - | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 |
| 玻璃化温度 Tg | DSC | ℃ | ≥110 | 121.2 | 122.6 | 121.8 | 122.3 | 121.8 | |
| 热分解温度 Td | TGA (Wt % loss) | ℃ | ≥360 | 400 | 400 | 400 | 400 | 400 | |
| 吸水率 
Water Absorption | D-24/23 | % | ≤1.5 | 0.51 | 0.43 | 0.56 | 0.49 | 0.56 | |
| | | | | | | | | | |
| CTI | IEC60112 | V | ≤600 | 600 | 600 | 600 | 600 | 600 | 600 |

上述测试数据为典型值而非保证值。