

Wave Solder Pallet Material Comparison

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|-----------------------------------------|------------------------------------------------|---------------------------------|----------------------------------------|---------------|
| | Durapol IGM L200 | Durostone CAS761 | Glastic CBC-C | |
| Description | Value | Value | Value | Units |
| Color | RAL 9005 Jet Black | Black | Black | N/A |
| Anti-Static | Yes | Yes | Yes | N/A |
| Density | 1.8-1.9 | 1.85 | 1.9 | g/cm³ |
| Flexural Strength (ambient) | 350 | 360 | 352 | MPa |
| Flexural Strength (temp) | 180 (130°C) | N/A | N/A | MPa |
| Impact Strength | 180 kJ/m ² (Charpy) | N/A | 15 ft/lbs (Izod) | Varying units |
| Water Absorption | < 0.18 | < 0.20 | < 0.20 | % |
| Coefficient of Linear Expansion | 15 (ppm/K) (parallel)60-70 (ppm/K)(perp) | 11 (no indication of direction) | 7.1 (parallel) 20.5 (perpendicular) | 10⁻⁴/°K |
| Thermal Conductivity | 0.3 | 0.25 | 0.32 | W/m°K |
| Maximum Operating Temperature | 350 (10 min) | 350 (10-20 sec) | N/A | °C |
| Service Operating Temperature | 260 | 260 | 300 | °C |
| Surface Resistivity | 10*5 – 10*9 | 10*5 – 10*8 | 10*5 – 10*9 | Ohms |
| Modulus of Elasticity | 16,000 | 18,000 | 15,170 | MPa |
| Specific Heat Capacity | N/A | 930 | N/A | J/kg °K |
| Sheet Size | 1250 x 2000 | 1220 x 2440 | 1000 x 2000 | mm |
| Thickness Tolerance | N/A | +/- 0.10 | +/- 0.051 | mm |
| Flatness Tolerance | 1.0mm (DIN ISO1101) | +/- 0.10 mm | N/A | Varying units |
| | | | | |

All data and values of this technical information have been compiled from the manufacturers and are provided for informational purposes only. The following data values were most likely not determined in the same testing manner so may be inaccurate to directly compare.

Durapol IGM L200 (previously named LRA)

- Constructed of 100% polyester resin and glass filament.
- Our most popular composite for use in soldering tooling. Excellent value/cost ratio
- Constructed from a proprietary polyester resin with a reinforcement of glass filament. Slight compliancy from polyester increases toughness, which allows thin wall cross-sections without fracture. This compliancy also causes the material to be less rigid than 100% epoxy composites but is more than sufficient for most applications.
- Consistently capable of 6k-12k passes through the wave solder process. Longevity is dependant on cleaning and allowing tooling to cool between cycles. Industry feedback indicates L200 is less reactive to fluxes, which cause premature breakdown in other materials.
- Excellent dimensional stability and will retain flatness through repeated reflow temperature cycling
- Superior machinability allows manufacturing to the tightest tolerances
- Good chemical resistance, not light detectable

Durostone CAS761

- Constructed of epoxy resin, 5% polyester resin and approximately 65% glass filament.
- Very Similar to Delmat's composite characteristics
- Good chemical resistance.

Glastic CBC-C

- Similar properties of epoxy based composites
- Small sheet (1m x 2m) results in decreased sheet utilization

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