



Technical Data

ESD CDM LF 68.950

General Description

The random glass mat substrate present in ESD CDM LF 68.950 minimizes delamination problems during machining or pallet use. The relative low thermal conductivity in the CDM materials allows a rapid pallet turnround eliminating most of the time, both the necessity to provide a cooling station and the process heat sink effect experienced in the metallic pallets. CDM materials can substitute metallic solder frames (or other materials) with great advantages. Flux resistance is depending on flux composition and pH level. Highly acidic, as well as basic fluxes often require a regular cleaning & removal of any remaining residue in order to preserve the stability of CDM

Description

ESD CDM LF 68.950 is a composite material made of glass mat, combined with a high mechanical resistance resin system. This new material has been especially developed for Lead Free processes giving increased stability at higher pre-heat and soldering temperatures, increasing the pallet's life span.

Colour :- Green

Properties

- Very good performance for lead free soldering process.
- Increased mechanical stability at high temperatures.
- Very good performance at temperatures higher than 300°C.
- Excellent flux resistance.
- Low deformation.
- Excellent dimensional stability & improved machineability.
- Dissipative material. Surface resistivity 10^5 to $10^9 \Omega/\text{square}$
- Optically sensitive detection to IR sensors.

Application

- Use in full lead free solder process.
 - Full process wave solder, selective solder and SMT.
 - SMT placement
 - Reflow soldering
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Physical properties		Value	Test Norm
Density	g/cm ³	1.90 +/-0.1	ISO 1183 (method A)
Water absorption 24h 23°C	%	<0.10	ISO 62 (method 1)
Linear Coefficient of thermal expansion parallel	K ⁻¹	10.10 ⁻⁶	VSM 77110

Mechanical properties		Value	Test Norm
Flexural strength at 150°C, flatwise	MPa	220	ISO 178
Flexural strength at 200°C, flatwise	MPa	180	ISO 178
Flexural strength at 250°C, flatwise	MPa	100	ISO 178
Modules of elasticity in flexure at 150°C, flatwise	MPa	16000	ISO 178
Modules of elasticity in flexure at 200°C, flatwise	MPa	12000	ISO 178
Modules of elasticity in flexure at 250°C, flatwise	MPa	9000	ISO 178

Thermal properties		Value	Test Norm
Thermal conductivity	W/m.K	0.3	DIN 52612

Electrical properties		Value	Test Norm
Surface resistivity	Ohm/square	10 ⁵ to 10 ⁹	IEC 60093

Availability
 Standard sheet size : 2350.00 x 1335.00 mm
 Surface ground both faces
 Standard thicknesses 5, 6, 8, 10 & 12mm
 Other thicknesses available on request

RoHS Directive

Hazardous products listed in the EU-directive 2002/95/CE (ROHS-directive), §4 section 1, are not used as ingredients in this material

The product properties set forth in this data sheet are not based on the results of testing of typical material produced by PPR Tooling Ltd. Some variation in product properties is typical. Comments or suggestions relating to any subject other than product properties are offered only to call the end users or other persons attention to considerations which may be relevant in the independent determination of the use and/or manner of use of product. PPR Tooling Ltd does not claim or warrant that the use of it's product will have the results described in this data sheet or that the information provided is complete, accurate or usefull. The user should test the product to determine it's properties and it's suitability for the intended use. PPR Tooling Ltd expressly disclaims any liability for any damage, harm, injury, cost or expense to any person resulting directly or indirectly from that person reliance on any information contained in this data sheet. Nothing contained in this data sheet constitutes representation or warranty as to any matter what so ever. PPR Tooling Ltd makes no warranties whatsoever in this data sheet, expressed or implied, including and implied warranty or fitness for a particular use or purpose. PPR Tooling Ltd shall in no event be liable for incidental, exemplary, punitive or consequential damages.

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