

Technical Data

ESD CDM 68.940

General Description	The CDM range of products exhibits higher mechanical
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and resistance properties as standard composite materials. The random glass mat substrate present in the ESD CDM 68.940 minimizes delaminations 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 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 68.940 is a composite material made of glass Mat, combined with a high mechanical resin system.

Colour :- Grey

Properties - Good Performance for lead free soldering process

- Increased temperature resistance :

Good performance at temperatures higher than 300° C

- Excellent flux resistance
- Low deformation.
- Excellent dimensional stability.
- Dissipative material. Surface resistivity 10^5 to $10^9 \Omega/\text{square}$
- Minimal solder pick up
- Optically sensitive to IR sensors
- Improved machinability

Application - Use in lead free solder process

- Wave solder, SMT and conformal selective

process.

- SMT placement
- Reflow soldering

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Physical properties		Value	Test Norm
Density	g/cm³	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 23°C, flatwise	MPa	350	ISO 178
Modules of elasticity in flexure at 23°C, flatwise	MPa	18000	ISO 178
Flexural strength at 150°C, flatwise	MPa	200	ISO 178
Modules of elasticity in flexure at 150°C, flatwise	MPa	12000	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
Surf Thic	Standard sheet size: 2350.00 x 1335.00 mm Surface ground both faces Thicknesses available 3mm, 4mm, 5mm, 6mm, 8mm, 10mm, 12mm		

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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