Technical Data

Thermal Conductive Ink TCI B series

Features & Benefits

- Excellent Thermal Conductivity and Resistance
- Low flow in elevated temperature
- High tack surfaces and reworkable
- High temperature applications
- Proven Long term reliability
- RoHS compliant, Halogen free and lead-free process
- Non-silicone based with zero outgassing

Thermal Conductive Ink is an epoxy resin base (one part) thermal conductive and electrical isolating material ideal for dispensing application.

Applications

- High power density applications which required low thermal resistance
- Industrial Motor, servo motor and EV motor
- LED modules
- Power Supplies and Semiconductors packaging
- Household appliances and consumer electronics

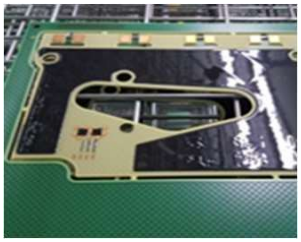
Configurations and Storage Conditions

The TCI family comes in 3 different thermal performance products:

TCI-B-C40, TCO-B-C160 and TCI-B-C260

- Refrigeration <10°C for 1 year from manufacturing date
- Room temp. 25±5℃, RH<70% for 3 months (unopened)
- Room temp. 25±5℃, RH<70% for 1 week (once opened)

We provide custom solutions for your applications. For further inquiries, please contact your local sales agent or directly to TCLAD sales in your region.



Property	Method (Units)	TCI-B-C40 (Typ.)	TCI-B-C160 (Typ.)	TCI-B-C260 (Typ.)
Resin Base	Chemistry	Epoxy	Epoxy	Epoxy
Color	Visual	Black	Black	Black
Hardness	ASTM D2240 (Shore 00)	99	99	99
Thermal Conductivity	TO220 (W/mK)	1.5	2.5	3
Thermal Conductivity	ASTM D5470 (W/mK)	0.4	0.65	0.8
Viscosity	ASTM D2196 (cP)	40000 ± 40%	160000 ± 40%	260000 ± 40%
Specific Gravity	ASTM D792 (g/cm3)	1.83 ± 0.3	2.04 ± 0.3	2.15 ± 0.3
Operating Temperature Range	- (°C)	-40°C to 150°C	-40°C to 150°C	-40°C to 150°C
Glass Transition Temperature (Tg)	IPC-TM-650 2.4.25 (°C)	>110	>110	>110
Thermal Degradation Temperature	IPC-TM-650 2.4.24.6 (°C)	>300	>300	>300
Dielectric Strength	ASTM D149 (kVDC/100 µm)	3	3	3
Tack Free Time	Room Temperature	25±5°C at > 12 months	25±5°C at > 12 months	25±5°C at > 12 months
	Elevated Temperature	60±5°C at > 1 month	60±5°C at > 1 month	60±5°C at > 1 month
Curing Condition [@°C / min]	- [@°C / min]	150±5°C ≧60 min	150±5°C ≧60 min	150±5°C ≧60 min
Outgassing	ASTM E595 (%)	0	0	0
Shelf Life	Storage Temp < 10°C (months)	12	12	12
Flame Rating	UL	E345558	E345558	E345558
Package Options	Weight	1Kg	1Kg	1Kg

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RoHS compliant

Rev 2024-D29-004