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Hybrid Thermal/EMI Absorber
CoolZorb 400 Series

CoolZorb 400 is a hybrid absorber/thermal management material that is used for EMI mitigation. Product is used like a traditional thermal interface material between heat source such as an IC and heat sink or other heat transfer device or metal chassis. CoolZorb 400 also functions to suppress unwanted energy coupling, resonances or surface currents causing board level EMI issues.

FEATURES AND BENEFITS

- Designed using silicone gel binder that imparts inherent tack typical of standard thermal gap fillers
- Filler particle composition imparts both good thermal conductivity and EMI suppression in the microwave frequency range with best attenuation performance at or above 5 GHz.
- CoolZorb 400 passes UL94V0 requirements
- Product does not require peel and stick adhesive when used like a traditional thermal interface material due to its tacky, compliant properties

VALUE

- Performance advantage comes from dual functional properties of thermal conductivity and EMI reduction
- Improved reliability performance of electronics
  - Better signal integrity due to reduction of EMI
  - Consistent performance of electronics due to temperature stability and low outgassing properties of product
- Improved EMC performance and resultant lower cost to meet compliance requirements
- Environmentally friendly solution that meets regulatory requirements including RoHS and REACH

TYPICAL PROPERTIES	DATA	TEST METHOD
Color	Dark gray	Visual
Thermal conductivity	2.0W/m-K	ASTM D5470
Density	4.5 g/cc	ASTM D792
Hardness	56 Shore 00	ASTM D2240
Tensile strength	60 psi	ASTM D638
Temperature Range	-20°C to 100°C	NA
UL Flammability	UL94V0	UL
Volume resistivity	5.9×10^{10} Ω	ASTM D257
Outgassing (TML)	0.15%	ASTM E595-07
Outgassing (CVCM)	0.06%	ASTM E595-07
Coefficient Of Thermal Expansion (CTE)	186 µm/mC	IPC-TM-650 2.4.41
Standard Thickness range	.020”-.130” (0.5-3.3mm)	
Thickness Tolerance	+/- .005” (+/-.127mm)	

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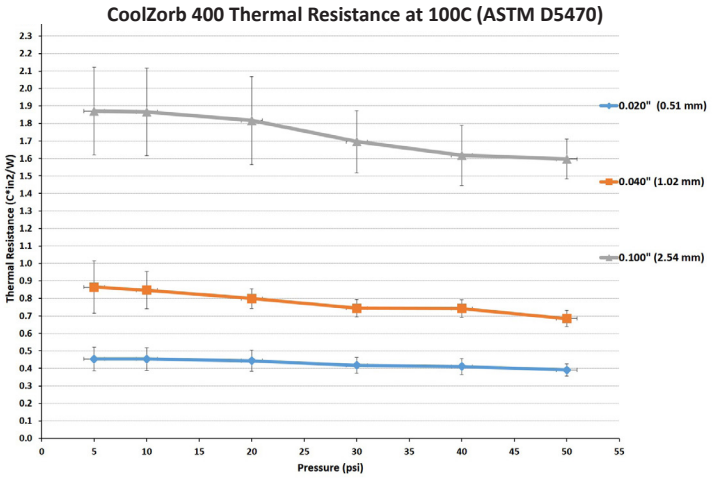

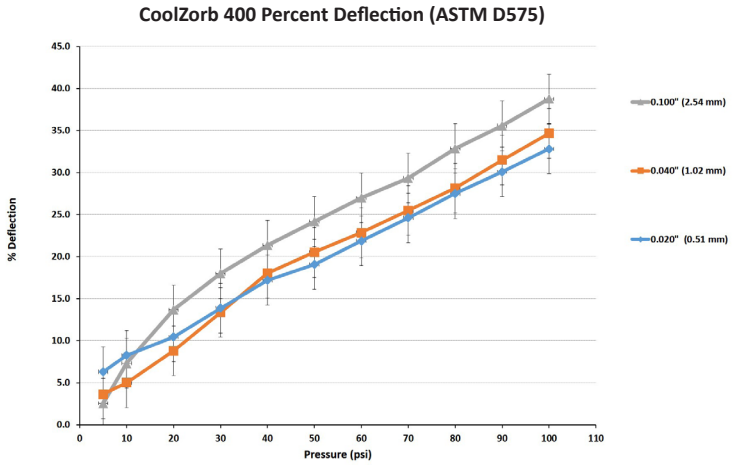

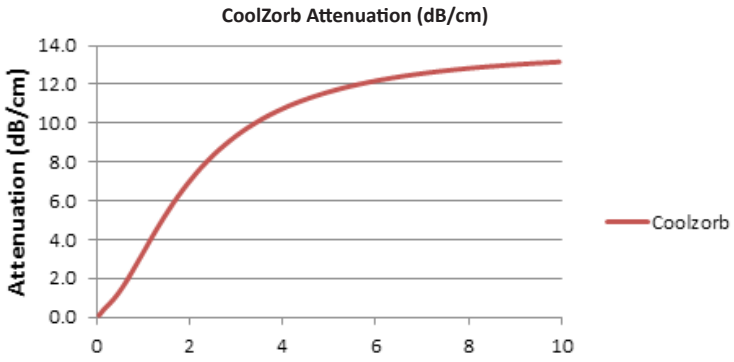

AVAILABILITY

- Standard sheet size is 12” X 12”
- Thickness availability range is .020” - .130” (0.5mm- 3.3mm)
- Common standards for thickness are .020”, .040” and .100” thickness (0.5mm, 1.0mm and 2.5mm)
- No charge samples are available in 4” X 4” size for each of the above common thicknesses

PART NUMBER SYSTEM

- CoolZorb 400 series absorber sheets (12”X12”) use the following designation when ordering: CZ400-XXX where XXX is thickness of absorber in thousands of an inch
- CoolZorb 400 series no charge absorber samples (4”X4”) use the following designation when ordering: CZ400S-XXX where XXX is thickness of absorber in thousands of an inch
- Example: CZ400-020 = CoolZorb 400, .020”X12”X12” sheet size; Example: CZ400S-040 = CoolZorb 400, .040”X4”X4 no charge sample size

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Laird Technologies:

CZ400-020 CZ400-040 CZ400-100