



HYBRID THERMAL/EMI ABSORBER

CoolZorb 700LF 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 700LF also functions to suppress unwanted energy coupling, resonances or surface currents causing board level EMI issues.

FEATURES AND BENEFITS

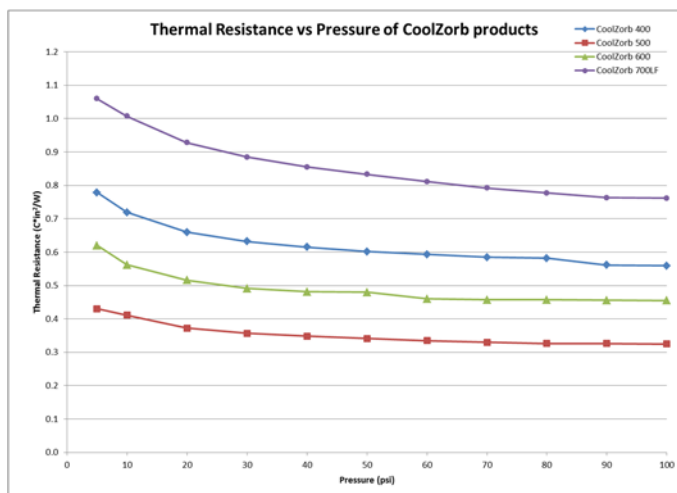
- Good thermal conductivity with great EMI suppression within 18-90GHz
- Inherent surface tack typical of standard thermal gap fillers
- Compliant with minimal component stress during assembly
- Meets UL 94 V-0 flame requirements

VALUE

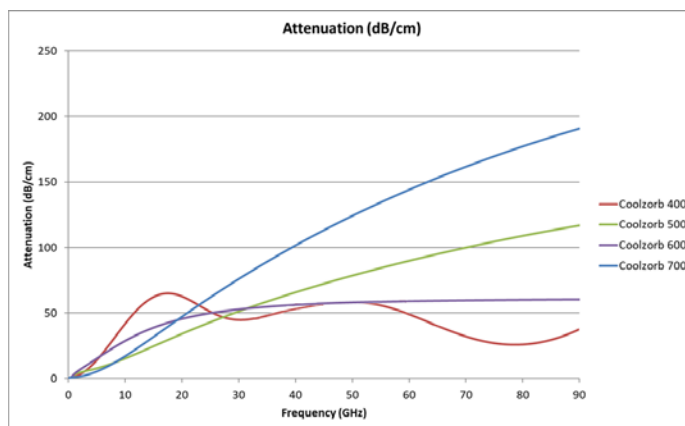
- Performance advantage comes from dual functional properties of thermal conductivity and EMI reduction
- Improved reliability performance of electronics
 - Better signal integrity due to reduction of EMI
 - Consistent performance of electronics due to temperature stability and low outgassing properties 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 | 2.0 W/m-K | ASTM D5470 |
| Density | 3.3 g/cc | ASTM D792 |
| Hardness | 53 Shore 00 | ASTM D2240 |
| Tensile strength | 25 psi | ASTM D638 |
| Temperature Range | -40°C to 175°C | NA |
| UL Flammability | V0 | UL94 |
| Volume resistivity | 1.6 x 10 ⁸ Ω*cm | ASTM D257 |
| Outgassing (%TML) | 0.38 | ASTM E595-07 |
| Outgassing (%CVCM) | 0.09 | ASTM E595-07 |
| Coefficient of Thermal Expansion (CTE) | 265µm/m °C | IPC-TM-650 2.4.41 |
| Standard Thickness range | .020"-.160" (0.5-4.0mm) | |
| Thermal Resistance | 1.7 °Cin ² /W @ 50 psi, for 0.100" | ASTM D5470 |
| Thickness Tolerance | +/- 10% | |

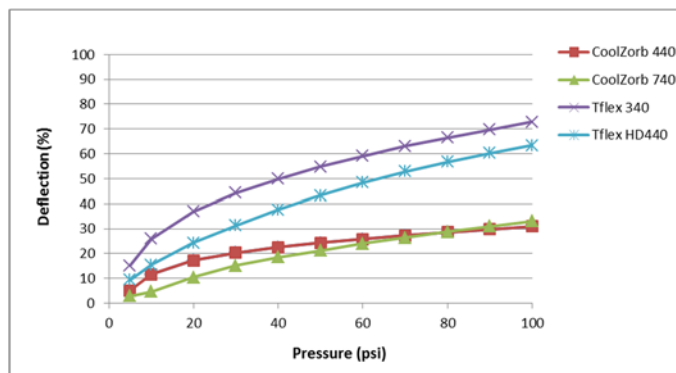
CoolZorb Thermal Resistance at 50C (ASTM D5470)



CoolZorb Attenuation (dB/cm)



CoolZorb Deflection Comparison (ASTM D575)



AVAILABILITY

- Standard sheet size is 12" X 12"
- Thickness availability range is 0.020" - 0.160" (0.5mm- 4.0mm)
- Common standards for thickness are 0.020", 0.040", 0.060" and 0.080" (0.5, 1.0, 1.5 and 2.0mm)
- No charge samples are available in 4" X 4" size for each of the above common thicknesses

PART NUMBER SYSTEM

- PRODUCTION sheets (12"X12") use the following designation when ordering: CZ700LF-XXX where XXX is the sheet thickness in thousandths of an inch, example CZ700LF-040 for 0.040"x12"x12"
- SAMPLE sizes of 0.020", 0.040", 0.060" and 0.080" thicknesses are available without charge. 4" x 4" pieces are ordered with the part numbers CZ700LF-020S, CZ700LF-040S, CZ700LF-060S and CZ700LF-080S. Other sizes may be available with NRE charge.

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