



HYBRID THERMAL/EMI ABSORBER

CoolZorb-Ultra series is a higher performance and silicone free hybrid absorber/thermal management material with ultra-high thermal conductivity of 11.5W/m.K. CoolZorb-Ultra is designed to be used like a traditional thermal interface material between heat source such as a high-power IC and heat sink or other heat transfer device or metal chassis. CoolZorb-Ultra also functions to suppress unwanted energy coupling, resonances or surface currents causing board level EMI issues.

FEATURES AND BENEFITS

- Very high thermal conductivity to meet industry trend of increasing IC power
- Good EMI suppression over wide frequency range, particularly over 60GHz
- Silicone free formulation make it suitable for silicone sensitive application
- Inherent surface tack typical of standard thermal gap fillers
- Compliant with minimal component stress during assembly
- CoolZorb Ultra passes UL94V0 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 to meet compliance requirements
- Environmentally friendly solution that meets regulatory requirements including RoHS and REACH

TYPICAL PROPERTIES	TYPICAL DATA	TEST METHOD
Color	Dark gray	Visual
Thermal conductivity	11.5W/m.K	Hot Disk
Density g/cc	2.96	ASTM D792
Hardness 3 seconds	58 Shore 00	ASTM D2240
Hardness 30 seconds	31 Shore 00	
Deflection @ 10psi on 1mm	7%	ASTM D575
Deflection @ 50psi on 1mm	39%	ASTM D575
Temperature Range	-40°C to 125°C	NA
UL Flammability	UL94 V-0	UL
Volume resistivity	$6 \times 10^{16} \Omega \cdot \text{cm}$	ASTM D257
Outgassing (TML)	0.29%	ASTM E595-07
Outgassing (CVCN)	0.14%	ASTM E595-07
DC Breakdown voltage @2.5 mm	1.85KV	ASTM D149
AC Breakdown voltage @2.5 mm	1.34KV	ASTM D149
Standard Thickness range	0.5-5mm	
Condensation and fogging at 120C	None over 96 hours	

Americas: +1.866.928.8181

Europe: +49.(0).8031.2460.0

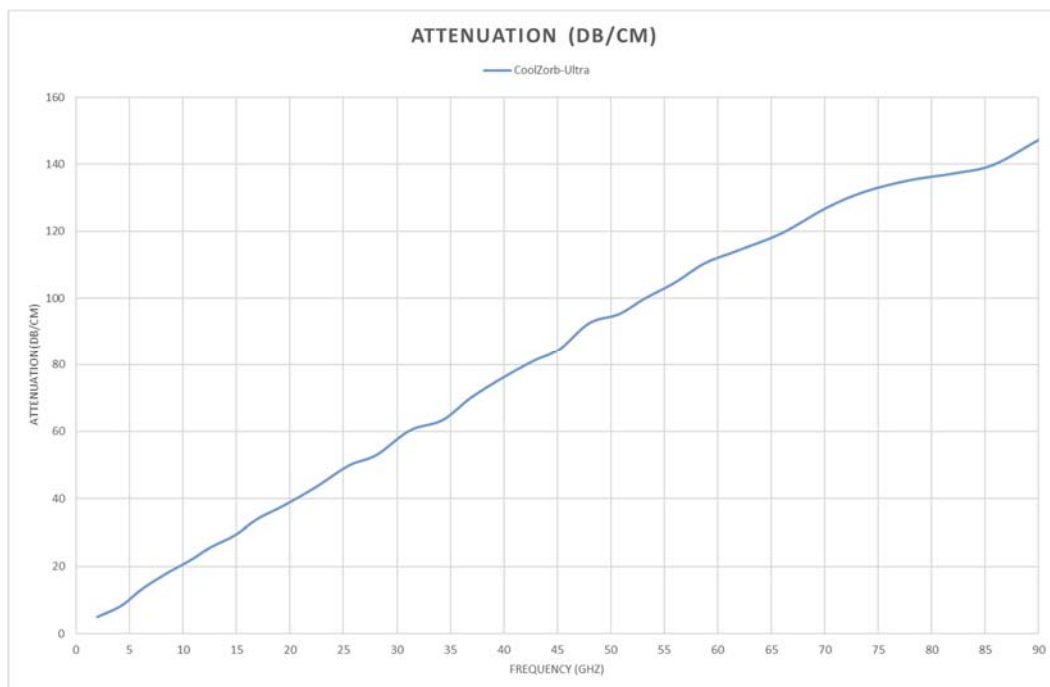
Asia: +86.755.2714.1166

www.lairdtech.com

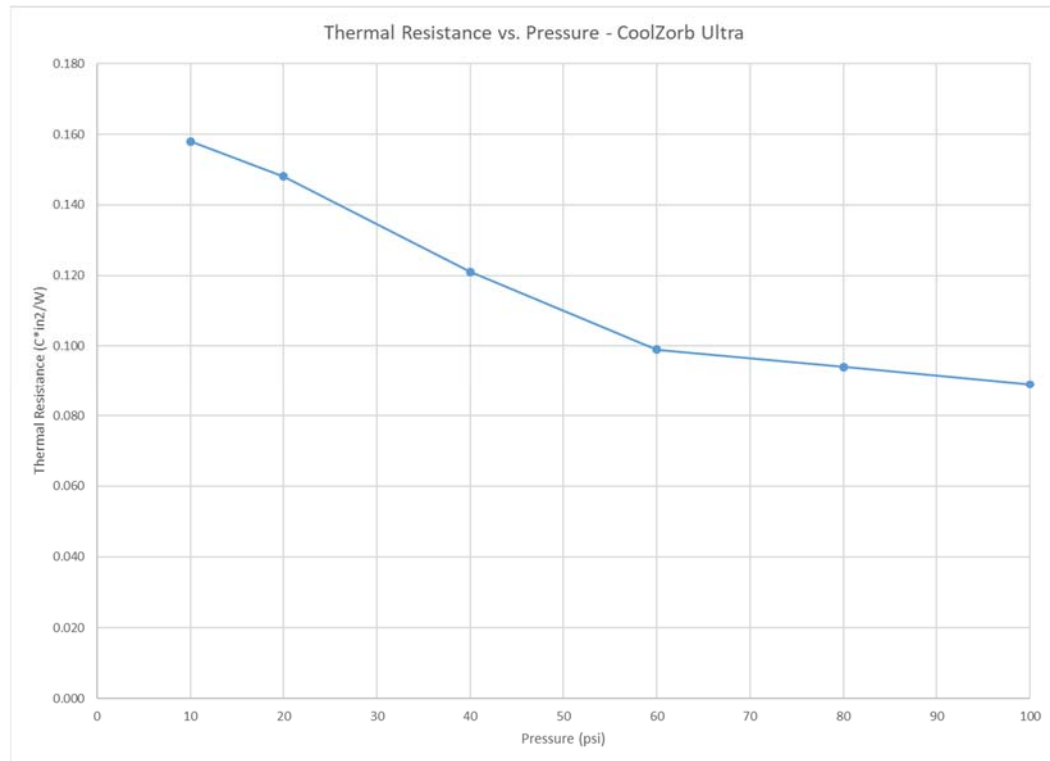


Hybrid Thermal/EMI Absorber

CoolZorb Ultra Attenuation (dB/cm)



CoolZorb Ultra thermal resistance @50C (ASTM D5470)



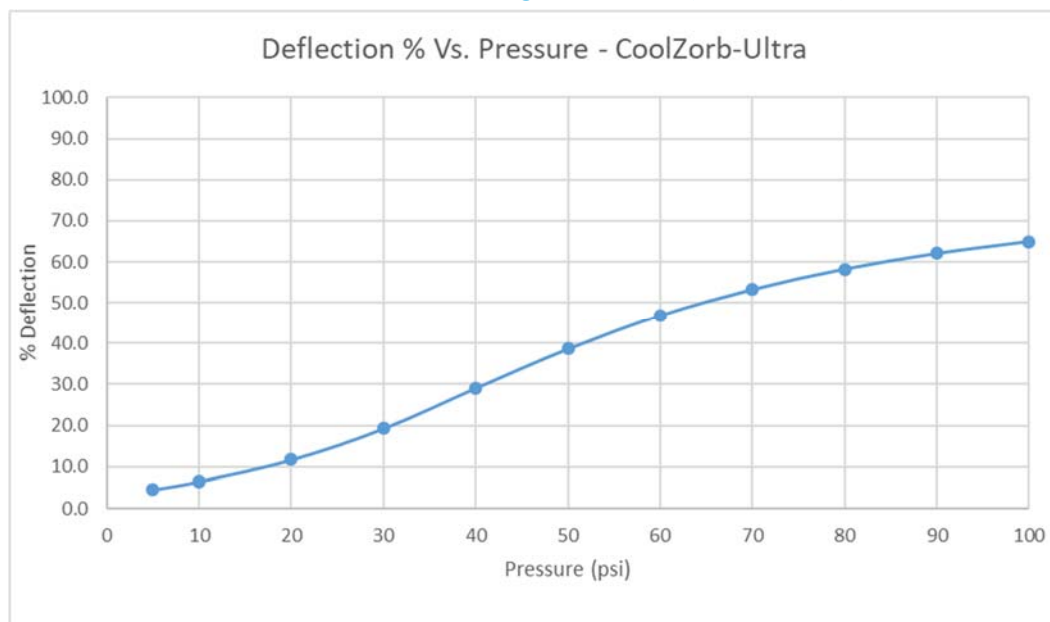
MFS-DS-COOLZORB Ultra 20210127

Any information furnished by Laird Technologies, Inc. and its agents is believed to be accurate and reliable. All specifications are subject to change without notice. Responsibility for the use and application of Laird Technologies materials rests with the end user. Laird Technologies makes no warranties as to the fitness, merchantability, suitability or non-infringement of any Laird Technologies materials or products for any specific or general uses. Laird Technologies shall not be liable for incidental or consequential damages of any kind. All Laird Technologies products are sold pursuant to the Laird Technologies' Terms and Conditions of sale in effect from time to time, a copy of which will be furnished upon request. © Copyright 2015 Laird Technologies, Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Technologies Logo, and other marks are trademarks or registered trademarks of Laird Technologies, Inc. or an affiliate company thereof. Other product or service names may be the property of third parties. Nothing herein provides a license under any Laird Technologies or any third party intellectual property rights.



Hybrid Thermal/EMI Absorber

CoolZorb Ultra Percentage Deflection (ASTM D575)



AVAILABILITY

- Standard sheet size is 18" X 18"
- Thickness availability range is 0.040" - 0.20" (1mm- 5mm)
- Thickness available on special request 0.020" (0.5mm)
 - Requires peel and stick application
- Common standards for thickness are available with 0.02" incremental.
- No charge samples are available in 4" X 4" size for each of the above common thicknesses

PART NUMBER SYSTEM

- PRODUCTION sheets (18"X18") use the following designation when ordering: A18181-XXX where XXX is the sheet thickness in thousandths of an inch, example A18181-040 for 0.040"x18"x18"
- SAMPLE sizes of 0.020", 0.030", 0.040", 0.060" and 0.080" thicknesses are available without charge. 4" x 4" pieces are ordered with the part numbers A18183-020, A18183-030, A18183-040, A18183-060 and A18183-080. Other sizes may be available with NRE charge.

MFS-DS-COOLZORB Ultra 20210127

Any information furnished by Laird Technologies, Inc. and its agents is believed to be accurate and reliable. All specifications are subject to change without notice. Responsibility for the use and application of Laird Technologies materials rests with the end user. Laird Technologies makes no warranties as to the fitness, merchantability, suitability or non-infringement of any Laird Technologies materials or products for any specific or general uses. Laird Technologies shall not be liable for incidental or consequential damages of any kind. All Laird Technologies products are sold pursuant to the Laird Technologies' Terms and Conditions of sale in effect from time to time, a copy of which will be furnished upon request. © Copyright 2015 Laird Technologies, Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Technologies Logo, and other marks are trademarks or registered trademarks of Laird Technologies, Inc. or an affiliate company thereof. Other product or service names may be the property of third parties. Nothing herein provides a license under any Laird Technologies or any third party intellectual property rights.

Mouser Electronics

Authorized Distributor

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

Laird Performance Materials:

[A18181-040](#) [A18181-060](#) [A18181-080](#) [A18183-040](#) [A18183-060](#) [A18183-080](#) [A18181-020](#) [A18181-030](#) [A18181-100](#) [A18181-120](#) [A18181-140](#) [A18181-160](#) [A18181-180](#) [A18181-200](#) [A18183-020](#) [A18183-100](#) [A18183-120](#)