

Customized electrical and thermal conductivity solutions



Fulfill your design aspirations

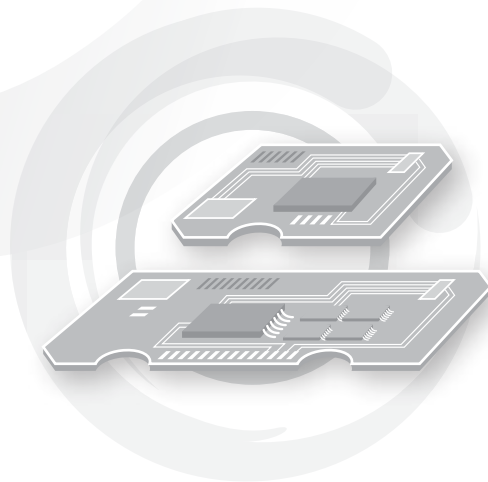
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We know what's hot

Performance makes the difference. Everyday devices from mobile phones to LED screens are getting thinner. Processors are speeding up. In envisioning the devices of tomorrow, possibilities are endless.

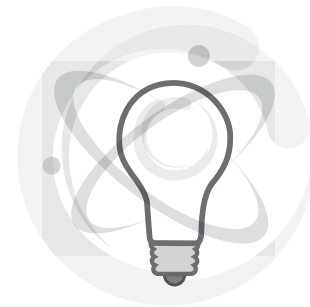




Design aspirations can create electromagnetic interference (EMI) issues, and effective solutions are needed to overcome them. At the same time, thinner product design may hamper efficient airflow within devices, causing a build up of heat in device interiors. You need the support of electrical and thermal conductive management solutions that match up to your design ideas and the manufacturing challenges they pose.

Tap into Avery Dennison's comprehensive range of solutions for all of your EMI and thermal management needs. We put the control back in your hands by offering detailed technical consulting and technological innovation, working hand in glove with you to provide answers tailored to your device.

We empower you to break design barriers by engineering a solution to perfectly fit your needs, from colour and hardness to the electrical conductivity of polymers.





Electromagnetic interference (EMI) solutions

Electrically conductive foams
Electrically conductive materials

Get the best performance and reliability with tough solutions that excel in demanding environments. Our EMI solutions combat the side effects of higher frequencies and compact designs. Choose from a wide range of material thicknesses to complement your product designs.

Product Series	Description	Benefits and Features	Typical Applications	Products Available
AEC-5000 series	Mesh reinforced polyurethane foam	<ul style="list-style-type: none"> Offer x-, y-, and z-axis conductivity for maximum EMI shielding attenuation With shielding effectiveness over 70 dB up to 10GHz, and low contact resistance Urethane foam core provides low compression set ensuring long term reliable gasket performance Urethane foam core typically requires very low closure force Replaces mechanical fasteners for weight reduction 	<ul style="list-style-type: none"> Server faceplates and blade cards Electronic enclosures Consumer electronics Door seals EMI window/vent seals Grounding applications 	AEC-50003B AEC-50005B AEC-50015B AEC-50002A
AEC-7100 series	Mesh reinforced polyolefin foam	<ul style="list-style-type: none"> Has wide range of shielding effectiveness: from 70dB up to 10GHz User-friendly and easy to install with standard pressure-sensitive adhesive attachment More cost-effective as an EMI shielding design solution, compared to other EMI gasket solutions Polyolefin foam core usually has better dimensional stability after die-cutting compared to urethane foam core Replaces mechanical fasteners for weight reduction 	<p>Designed specifically for use in commercial electronic enclosures and metallized plastic housing</p> <ul style="list-style-type: none"> Conductive backplane gaskets Door seals, garage door openers Conductive backplane gaskets Remote entry Cell phones, bluetooth devices MP3 players or, gaming systems with WiFi High power transmitters such as TV and radio towers 	AEC-71003B AEC-71005B AEC-71007B AEC-71001A
AEC-7200 series	Mesh reinforced "anti-tarnish" polyolefin foam	<ul style="list-style-type: none"> Wide range of shielding effectiveness: from 70dB up to 10GHz Lighter in weight and more compressible with their reticulated structure Anti-tarnish coating enables better corrosion and tarnish resistance, and better gasket concealment if aesthetics are important Polyolefin foam core has better dimensional stability after die-cutting compared to urethane foam core Replaces mechanical fasteners for weight reduction 	<ul style="list-style-type: none"> Flat panel displays Card cage shields I/O panel connector gaskets Conductive backplane gaskets Navigation systems Entertainment systems CD/Receiver head units Roadside assistance systems Satellite radio receivers 	AEC-72003B AEC-72005B AEC-72001A



Thermal conductivity solutions

Thermal conductive materials

No matter what shape, size or level of complexity your products come in, we offer customizable solutions engineered to dissipate heat at the rate you require, prolonging their lifespan.

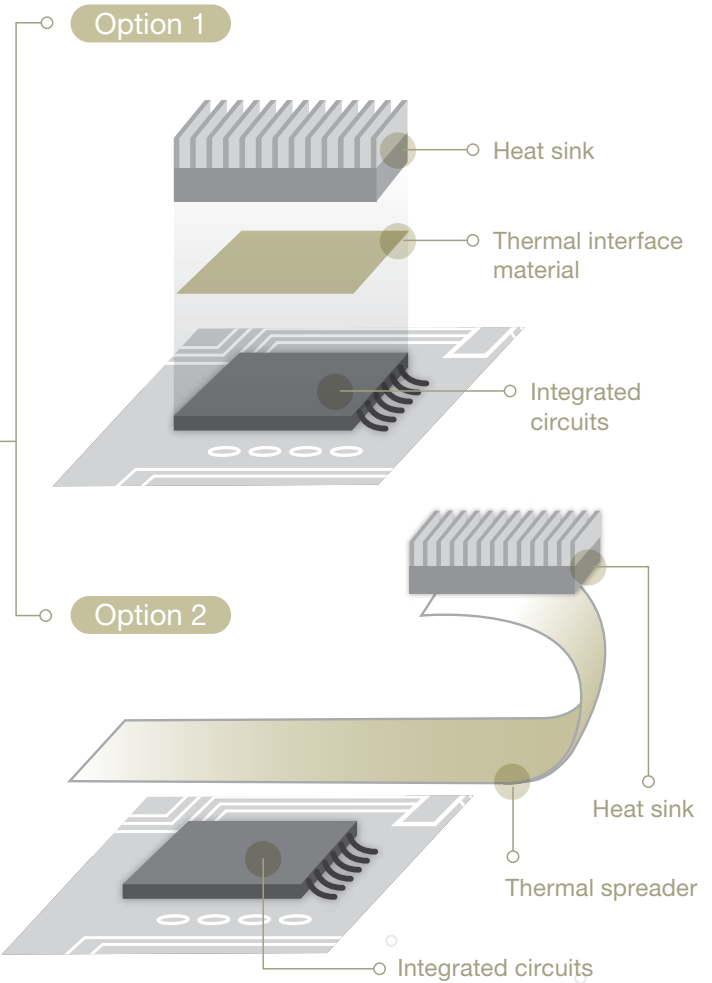
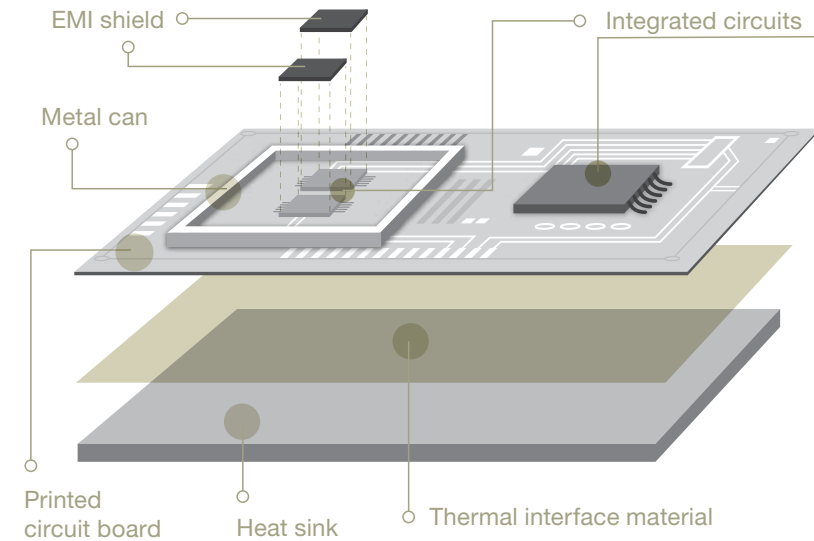
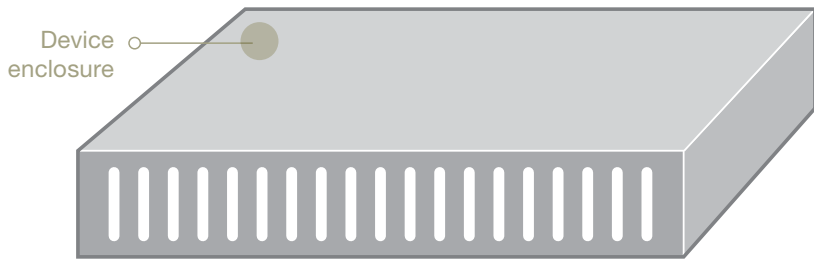
Avery Dennison thermal interface materials enable excellent surface contact for efficient thermal conductivity and maximum performance of your device. We can meet your unique requirements on material thickness, hardness and conductivity without compromising device performance and reliability.

Product Series	Description	Benefits and Features	Typical Applications	Products Available
ATC-8000 series	Thermal conductive silicone material	<ul style="list-style-type: none"> Low hardness and low modulus characteristics make this material suitable for low-stress applications Highly conformable, allowing good overall surface to surface contact between components Inherent natural tack on both sides of these materials allows for stick-in-place characteristics during application, eliminating the need for thermally-impeding adhesive layers Wide service temperature range with good thermal stability Good electrical isolation provides protection of electronics from electrostatic discharge (ESD) damage 	<ul style="list-style-type: none"> Telecommunications Computer and peripherals Power conversion Between heat-generating components and a heat sink 	ATC-8015-005B ATC-8015-001A ATC-8030-005B ATC-8030-001A ATC-8050-005B ATC-8050-001A
ATC-9000 series	Fiber reinforced thermal conductive silicone material	<ul style="list-style-type: none"> The fiberglass reinforcement allows for easy material handling and installation in thin profiles Smooth and non-tacky on both sides allow for easy re-positioning during assembly High conformability allows good overall surface to surface contact between components Wide service temperature range and good thermal stability Good insulation properties that protect electronics from ESD damage 	<ul style="list-style-type: none"> Computer and peripherals, CDROM /DVD cooling Telecommunications, Wireline/wireless communications hardware RDRAM™ memory modules/chip scale packages, DDR SDRAM memory modules, FB DIMM modules Power electronics DC-to-DC converters¹ Mass storage devices Graphics card/processor/ASIC² Automotive engine/transmission controls Areas where surfaces need to make a thermal interface to a heat sink 	ATC-9015-023C ATC-9015-003B ATC-9010-023C ATC-9010-003B ATC-9020-023C ATC-9020-003B
ATC-6000 series	New generation thermal spreader	<ul style="list-style-type: none"> High thermal conductivity yet ultra-thin. Ideal for very slim devices or applications where thickness is an issue Saves weight by replacing the thermal interface and mechanical heat sink Suitable for applications where silicone contamination is a concern High thermal conductivity in the horizontal direction and low conductivity in the through-thickness direction. Benefits the heat shield by eliminating the heat effects on surrounding electronic components Bonded graphite with stable structures has little risk of contamination Graphite layer is inherently chemically stable and rustproof compared to that of metal Good flexibility allows easy re-work and conforms to product contours 	<ul style="list-style-type: none"> Portable communication devices Notebook, netbook and laptop computers LCD, PDP (plasma display panels), and LED displays CPU, MPU Automobile electronics Power amplifier and other electronics 	ATC-6015-015C

1. A DC-to-DC converter is an electronic circuit which converts a source of direct current (DC) from one voltage level to another. It is a class of power converter.

2. An application-specific integrated circuit (ASIC) is an integrated circuit (IC) customized for a particular use, rather than intended for general-purpose use. For example, a chip designed solely to run a cell phone is an ASIC.

EMI and thermal conductivity solutions



The Avery Dennison edge

Tailor-made solutions available for:

- Defense and aerospace
- High brightness LED screens
- Automotive electronics
- Power convertors
- Telecommunications infrastructure
- Mobile phones and feature-rich consumer electronics
- Server backplanes
- High power RF combiner/splitters and power amplifiers



The promise of assurance comes with tested and certified materials that are fully compliant with industry regulations. Experience the support of a worldwide manufacturing and distribution network complemented by local technical and sales expertise close to you.

***Be on the edge of innovative designs
with Avery Dennison.***



About Avery Dennison

Avery Dennison (NYSE:AVY) helps make brands more inspiring and the world more intelligent. For more than 75 years the company has been a global leader in pressure-sensitive technology and materials, retail branding and information solutions, and organization and identification products for offices and consumers. A FORTUNE 500® company with sales of \$6.5 billion in 2010, Avery Dennison is based in Pasadena, California and has employees in over 60 countries. For more information, visit www.averydennison.com.

Inspiration for everyday life starts at durablesteam@averydennison.com.

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