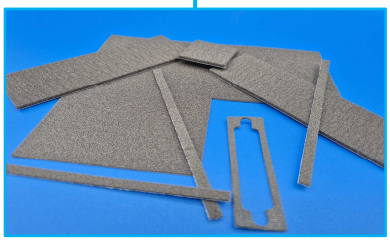
# 3 Axis conductive foam

FT_B17_01_03



3-axis conductive foam is a urethane based foam combined with Mesh. It has a low density. It is completely coated with a copper + nickel mixture, which gives it a low resistance electrical conductivity according to the three axes X/Y/Z. This ensures a particularly good connection between the top and bottom of the elements to be put in electrical continuity. This allows it to deliver excellent EMI shielding performance when used as a conductive EMI seal. The material is available as a sheet or roll up to 1000 mm wide or as a die cut seal according to customer plan. Conductive adhesive is available as an option. This material will provide good dust tightness

**Application Areas**: Electronic Components - Electric Vehicles, 5G, Autopilot System, Mobile Phone, AIOT, HPC (High Performance Computing), Server, IC, CPU, MOS, LED, Motherboard, Power Supply, Heat Sink, LCD-TV, Laptop, PC, Telecommunication Device, Wireless Hub, DDR ll Module, etc.

## Technical characteristics

| Features | Units | 3 axis conductive foam |
|---|---|---|
| **Thickness** | mm | 1.5 / 3 |
| **Conductive materials** | - | Mesh + Metal Coating Cu+Ni |
| **Base Material** | - | Urethane foam |
| **Porosity** | PPI | 80 |
| **Foam density** | kg/m3 | 60 |
| **Tape** | | Acrylic modified conductor on request |
| **Color** | - | Dark Gray |
| **Surface resistivity** | Ohm/sq | < 0.2 |
| **Volume resistivity** | Ohm.cm | < 0.2 |
| **Shielding efficiency** | - | > 60 dB from 30 MHz up to 10 GHz |
| **Temperature** | °C | -10°C + 85°C |
| **Compression ratio** | % | 15 - 30 Recommended - Possible up to 50% if no disassembly |
| **Tensile strength** | N | # 2.80 (1.70) 3.30 (2.20) 4.40 (2.70) |
| **Elongation** | % | 22 |

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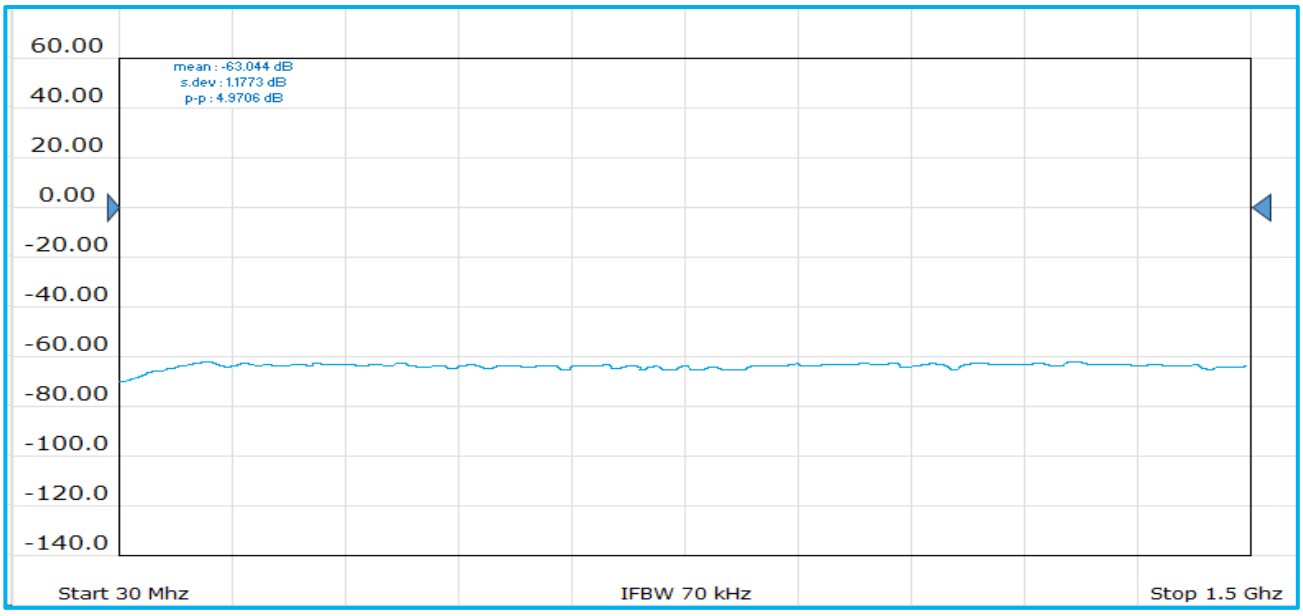
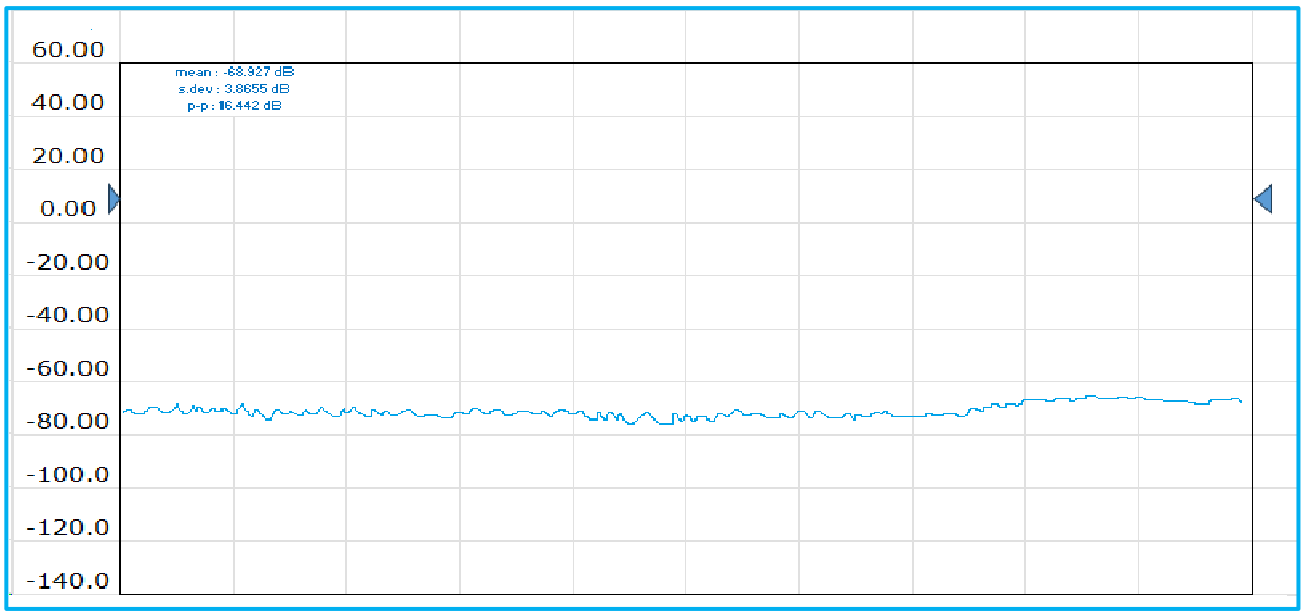
## Shielding efficiency on test

Measuring equipment: Electromagnetic Analyzer (KEYSIGHT E5071C)
Frequency used: 30MHz - 1.5GHz (Low frequency)
Sample test: Circumference 135mm, Spherical type




Measuring equipment: Electromagnetic Analyzer (KEYSIGHT E5071C)
Frequency used: 1.5GHz - 10GHz (High frequency)
Sample test: Circumference 16.5mm, Spherical type




The results were obtained under laboratory conditions and should be considered only as an indication. As AB2E has no control over its customers' equipment and many other factors, it is the user's responsibility to carry out its own tests to ensure that the product corresponds to its needs.