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High Density Conductive Foam

BHD

Description

High density conductive foam is a polyurethane foam filled with carbon, ensuring excellent ESD protection. Conductive foam is designed for repeat use, and will act like a Faraday cage when an item is fully enclosed within it. Because of this, a static shielding bag is not needed as an outer container when using conductive foam. The foam has a high level of conductivity and the mechanical and electrical protection makes the foam ideal for protecting electronics from static and physical damage. The foam meets TS10218 standards meaning it is non-corrosive. In order to avoid damage/crushing, 1 square meter is supplied in 4 pieces, each is 0.5 meter square. Foam can be supplied in any size to suit numerous packaging requirements. Our high-density conductive foam can easily be stamped or shaped to accommodate the most demanding criteria

Manufactured in the United Kingdom

Key Features

- Meets TS10218. (Non-corrosive).
- Very low shedding.
- Supplied 1 meter x 1 meter.
- Manufactured from a conductive polyurethane to protect ESD sensitive devices.
- Provides mechanical and electrical protection.
- All foams are made in the United Kingdom.
- Bespoke customisation.
- Great to use in conjunction with conductive component boxes.
- Compliant to RoHS and REACH.
- Compliant according to IEC-61340-1-5 International Standard.

Size Options

- BHD6 – 1 meter x 1 meter x 6mm.
- BHD10 – 1 meter x 1 meter x 10mm.

Suitable to use in conjunction with ***conductive component box***

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The Problem

Static Sensitive Devices (SSD's) are particularly vulnerable to damage from static charged human contact. Personnel handling these devices are generally unaware that walking across a floor, or simply the friction of clothing, can build up massive charges of 1000's of volts which will destroy the chip at a touch. Even protective circuitry does not necessarily protect the device from static charges encountered during routine handling and packaging.

Warning

The answer is to use Electrically Conductive Foam to protect these devices. But, as in medicine, the cure can sometimes be as harmful as the ailment. The materials used in the construction of SSD's, including non-ferrous metals, are highly susceptible to corrosion which can cause irreparable damage during periods of storage. It is therefore, of vital importance that any conductive foam used for handling, packaging and storing of SSD's should be NON-CORROSIVE, and built to the most demanding specifications.

The Solution

A British Company has developed obtained Ministry of Defence, and other approvals, for two grades of non-corrosive electrically conductive foam. Both materials provide maximum protection to SSD's from static discharge and physical damage in storage transportation and operation. VCF conductive foams are treated as safety critical items, and each consignment is manufactured and tested in accordance with the requirements of Defence Standard 05-24.

Corrosion Resistance

Numerous tests in both our own and government accredited laboratories verify compliance with the most demanding specifications. The most corrosion prone non-ferrous metals such as zinc, nickel etc., are not corroded when in direct contact or in vapour contact with conductive foams even at elevated temperatures and humidities.

Compression Set Resistance

The compression set indicates the ability of the foam to retain its original shape and dimensions after being subjected to long term deformation as experienced in packaging of complete PCB's.

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	M.O.D. SPECIFICATION	TYPICAL VALUE LOW DENSISTY	TYPICAL VALUE HIGH DENSISTY
Volume Resistivity Ωm	250 max	36.6	56.2
Corrosivity g/m2			
Vapour	15 max	5.9	4.9
Contact	15 max	7.2	6.6
Compression Set % (50% compression)	30 max	10.5	22.4
Water Extract ph	5.5min	7.8	7.6
	8.0 max		
Conductivity of Water mS/m	30 max	18.6	22.6
Water Soluble Chloride %	0.03 max	0.003	0.003
Total Chlorine %	0.4 max	0.32	0.34

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BONDLINE

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Eliminate Costly Static Damage...

Whether you are experiencing unacceptable levels of damage in transit, need a specific cleanroom solution or simply don't know which ESD safe equipment is best for you, we can help!

Request complimentary, no obligation advice by speaking with one of our technical experts today.

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