



**Low Density, High Density,
and Cross Linked**

RoHS Compliance Statement

None of the following materials are intentionally added in manufacturing this product: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE) as outlined in the Directive 2002/95/EC Article 4.1. See Desco Industries Inc. letter on-line at Desco.com.

Description:

Desco's conductive foam is a non-abrasive, open-cell(closed cell in cross linked) polyurethane foam compounded for permanent ESD Control Properties. The black conductive foam's Rtt range of 10E3 to 10E6 allows it to be used with ESD susceptible products. Desco's conductive foam is available in 3 designs:

Low Density (2 lb/cu ft) – used for cushioning and packaging

High Density (5 lb/cu ft) – used for lead insertion of components and PCBs

Cross Linked (3.1 lb/cu ft) – used for lead insertion of components and PCBs where non-sloughing materials are needed



Made in the
United States of America

Electrical Properties:

Surface Resistance: 1 x 10E3 < 1 x 10E6 ohms per ANSI/ESD STM11.11
Volume Resistance: 1 x 10E3 < 1 x 10E6 ohms per ANSI/ESD STM11.12
Charge Decay: Less than 0.05 seconds from 5KV per FTMS 101C, Method 4046.1

Specifications:

Construction: Hi / Low Density -- Polyurethane open cell, carbon/acrylic impregnated.
 Cross Linked -- Polyethylene closed cell extruded cross linked.
Corrosion Resistance: per MIL-STD 883C, Method 1004.2

	Low Density	High Density	Cross Link
Density (approx.):	2 lb/cu ft	5 lb/cu ft	3.1 lb/cu ft
Tensile Strength:	17 psi	25 psi	85 psi
Tear Resistance:	2.5 lbs	2.15 lbs	16 lbs
Elongation:	150%	120%	50%

Thickness (in*)	Low Density	High Density	Cross Linked
1/4	<u>12200</u>	<u>12250</u>	<u>12660</u>
3/8		<u>12350</u>	
1/2	<u>12400</u>	<u>12450</u>	
3/4		<u>12550</u>	
1	<u>12600</u>	<u>12650</u>	

Standard sheet sizes 24" x 36" – Low Density and High Density, 24" x 35" – Cross Linked

*Dimensions are nominal; thickness is ± 1/16".

Specifications and procedures subject to change without notice.

STATFREE® FOAM, CONDUCTIVE

DESCO

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**DRAWING
NUMBER**
12100

DATE:
August
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MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFICATION

Product Trade Name: Statfree® Conductive Foam

Chemical Family: Polyolefin

Chemical Name: Polyethylene Foam

Other Names: LD Conductive (CN) or Static Dissipative (SD) Grades

CAS Name & Number: Polyethylene CAS 9002-88-4
Carbon Black CAS 1333-88-4

Appearance: Black closed cell foam

Odor: None at ambient temperature

Intended Uses: Conductive packing

THE MAIN HAZARD

In the event of fire, the foam can ignite and burn. Burning can be accompanied by the release of flaming droplets of polymer.

EMERGENCY & FIRST AID PROCEDURES

If this happens	Do this
Fire	Spray with water
Product in eye	Irrigate with water
Product on skin	Not applicable
Product ingested	Rinse mouth with water and obtain medical attention
Product inhaled	Not applicable
Spillage	Treat as garbage

COMPOSITION

Crosslinked polyethylene: 90-93%

Carbon black: 7-10%

HEALTH HAZARD INFORMATION

Occupational exposure limits: None

Health Effects:

On Eyes: May cause irritation if heated without adequate ventilation

On Skin: Foam is not considered to be a skin irritant, but under some circumstances foam can have a minor abrasive action on skin.

By Ingestion: Material is inert, but ingestion should be avoided.

When Inhaled: There is no release of fumes at normal ambient temperature.

Additional Medical Information: None

FIRE & EXPLOSION DATA

Flash Point (°C): Not applicable

Auto Ignition (°C): 365 ATMD D 1928-77

Flammable Limits (% v/v): Not applicable

REACTIVITY

Stability: Generally inert, but will react with oxidizing agents at elevated temperatures

Incompatibility: None

Hazardous Decomposition and Combustion Products: Carbon monoxide, acrolein and other aldehydes may be evolved when combustion occurs under low oxygen conditions.

PHYSICAL DATA

Density: 0.92 g/cc (polymer)

Vapor Liquid (Air = 1): Not applicable

Bulk Density (kg/m³): Nominal densities vary from 30 Kg/m³ to 50 Kg/m³

Boiling Point (°C): Not applicable

Freezing/Melting/Pour Point (°C): Not applicable

Coefficient of Cubical Expansion (per °C): Varies with temperature and time. Will expand first and then shrink.

Vapor Pressure (mbar): Not applicable

Solubility: In water - NIL. Partially soluble in hot hydrocarbon or halogenated solvents.

Dissipative - Corrosion Resistant. Ideal for long term storage

Viscosity (cP): Not applicable

Electrostatic Generation: Static is rapidly dissipated

Equilibrium Vapor Concentration (in air): Not applicable

HANDLING & STORAGE

Handling and Storage Materials:

Unsuitable: NA

Suitable: Shrink or stretch wrap containers

Handling & Storage Precautions: Store at ground level away from direct sunlight and heat sources

Recommended Protection: NA

Disclaimer: This Safety Data Sheet was prepared to protect against any reasonable exposure to consumers or employees arising out of the intended use of the product and to provide them with information regarding potential hazards contained in the product. Under varied circumstances the hazardous ingredients may pose a lesser or greater hazard. Because of the scientific data contained in these sheets was obtained from test performed by agencies other than the Manufacturer. The company cannot guarantee its accuracy. The Manufacturer makes no warranty of any kind, expressed or implied. The user must assume all risk and liability resulting from reliance on the information contained on this Material Safety Sheet and the use of this product, whether used in combination with other products or singularly.

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