## Technical Fact Sheet

## Conductrol ${ }^{\text {TM }}$ Antistatic Fiber

## General Description

Conductrol ${ }^{\text {TM }}$ fiber combines a carbon filled acrylic (poly-acrylonitrile copolymer) fiber with an inherently conductive polymer surface to yield a fiber with stable electrical properties. Conductrol is available in a variety of forms tailored to fit different ESD control applications. Short, uncrimped staple is available in lengths from 0.5 to 7 mm for use in specialty materials like reinforced rubber, epoxy and adhesives. Crimped staple in longer lengths (up to 150 mm ) is available for use in woven and non-woven industrial textiles.

## Typical Physical Properties

| Color | Black |
| :--- | :--- |
| Density | $1.26 \mathrm{~g} / \mathrm{cm}^{3}$ |
| Fiber diameter | $20-25 \mu \mathrm{~m}$ <br> 3 denier |
| Resistivity: volume |  |
| filament <br> surface | $0.2 \Omega-\mathrm{cm}$ <br> $4 \times 10^{4} \Omega / \mathrm{cm}$ <br> $2.5 \times 10^{3} \Omega / \mathrm{sq}$ |
| Tensile Strength | 320 MPa <br> $3 \mathrm{~g} / \mathrm{den}$ |
| Elongation | $25-35 \%$ |

## Environmental Stability

With the exception of concentrated chlorine, the conductivity of Conductrol ${ }^{\text {TM }}$ lasts in every environment tested for as long as the fiber lasts:

| pH 3-11 (Room Temp) | No effect |
| :--- | :--- |
| Laundering | No effect, 75 launderings |
| Floor cleaners and detergents | No effect |
| Thermal aging, $170^{\circ} \mathrm{C}$ | No effect after 10 days |
| Chorine bleach | $3 \times 10^{6} \Omega / \mathrm{sq}$ after 36 hrs |

## IMPORTANT NOTICE

The information and statements herein are believed to be reliable, but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE. Nothing herein is to be taken as permission, inducement or recommendation to practice any patented invention without a license.

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