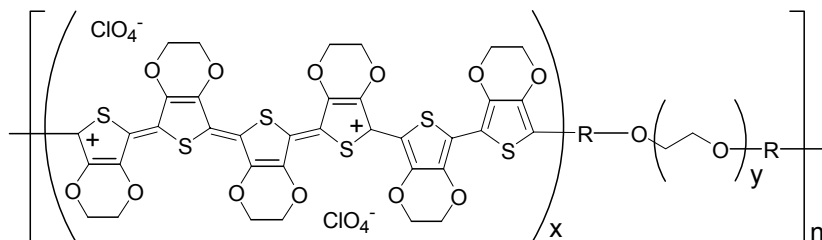


Fact sheet for **Ædotron™-C** dispersion, 1% in nitromethane

Molecular structure



Chemical Identity

Block copolymer of poly(2,3-dihydrothieno(3,4-b)-1,4-dioxin) [also known as PEDOT or poly(3,4-ethylenedioxythiophene)] and polyethylene glycol (PEG) doped with perchlorate

Bulk conductivity

0.1-1.0 S/cm (vol. res. 1-10 Ω ·cm)

Typical surface resistance of spin cast thin films (2 x @ 500 RPM)

$10^5 \Omega/\square$ @ 70% Transmittance

Typical RMS surface roughness of spin cast thin films (by AFM)

30-50 nm

Composition

90-95 (wt)% nitromethane
4-8 (wt)% acetonitrile
0.8-1.2 (wt)% **Aedotron™-C** polymer

Form

Liquid dispersion

Typical Usage

Conducting films, anti-static layers, organic electronics, flexible circuits and TFTs, capacitors, and batteries

Application Guide

Store this product at room temperature (do not refrigerate or freeze). Some settling will normally occur. Agitate, sonicate, and filter prior to use. A plug of glass wool in a pipette can be used for easy filtration. The shelf life of this product will vary depending on how it is stored and handled. Product should be discarded if heavy aggregation occurs, or if sonication / filtering are inadequate to produce a good casting solution. Nitromethane can be used to cast robust films on many polymeric substrates. Resistance of substrates to nitromethane should be tested in each case. Thin transparent films are typically spun at or above 500 RPM, but more conducting films can be obtained at lower speeds or using multiple layers.

Features and Benefits

The block copolymer structure renders the conducting polymer PEDOT highly dispersible in organic solvents. This dispersion does not contain excess acids, added electrolytes, surfactants or other stabilizers. Nitromethane has a suitable volatility for spin coating and printing.