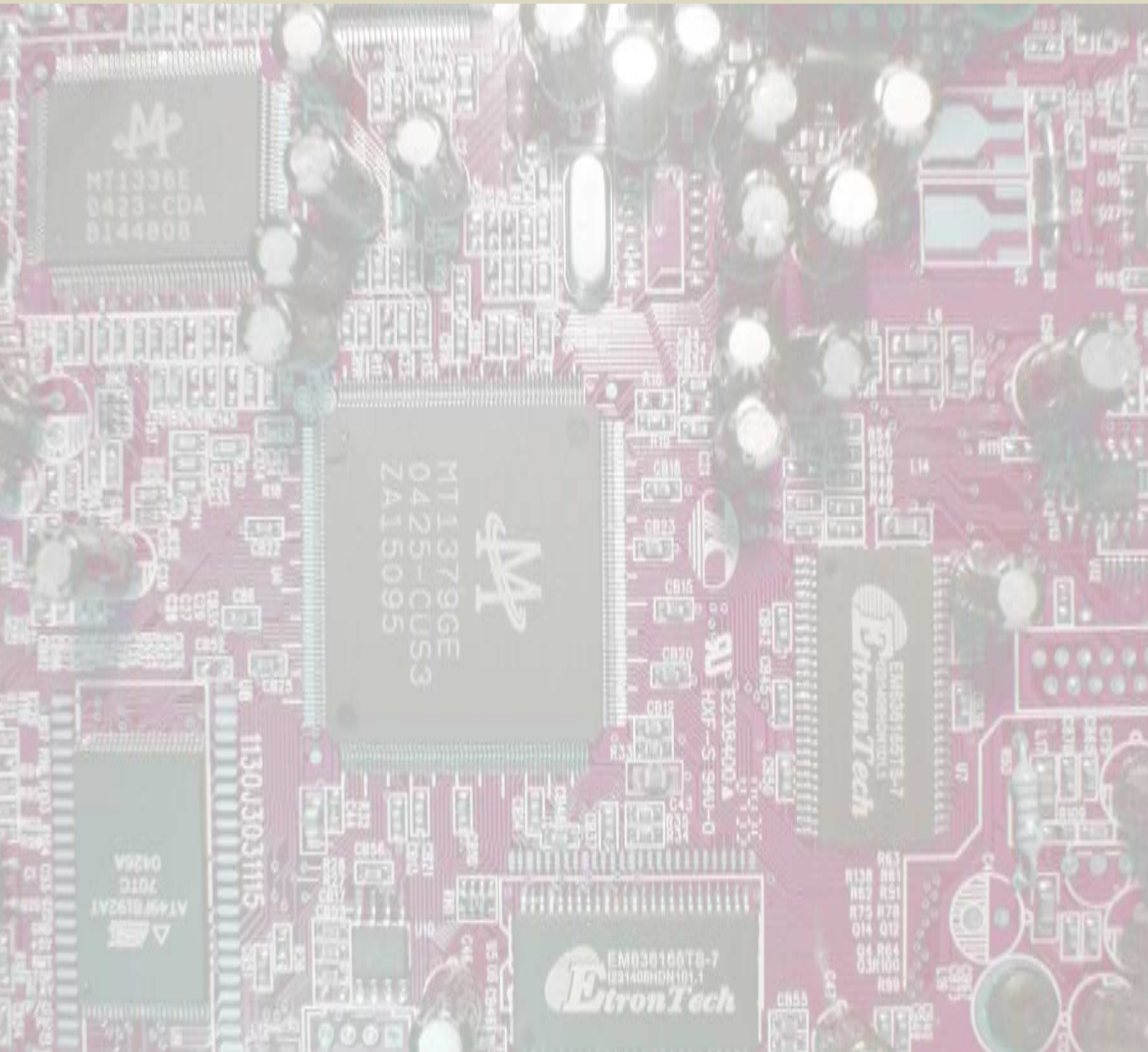


POLYPOLARON

Organic Electrical Conductor

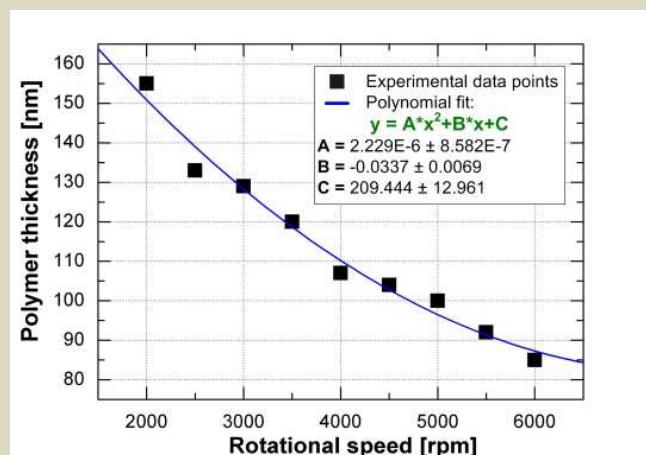


Polypolaron is a water-based organic electrical conductor that features remarkable ease of use in a wide variety of applications. This water-based plastic is very easy to apply using any one of a variety of techniques such as dip coating, spray coating, spin coating, roller coating or stencil masking. It is also easy to remove by simply rinsing in water. Polypolaron-coated surfaces appear transparent to light greyish-blue in colour, depending on film thickness.

Polypolaron is based on a mixture of polyaniline, substituted polythiophenes and polystyrene, blended together in an aqueous medium. Delocalised electron systems in the conjugated bond structure of these polymers cause them to conduct electric current. The presence of both electrical conductivity and substantial optical transparency make Polypolaron useful for a number of applications.

Typical applications for Polypolaron include charge suppression coatings for electron microscopy and electron beam lithography, electromagnetic interference shielding, cross-talk reduction between closely spaced electrical conductors, electrostatic discharge protection for components and substrates, manufacture of organic light-emitting diodes (OLEDs) conducting tracks on flexible substrates and generally any situation where a flexible, easily-applied conductor is required. Please note that due to moisture sensitivity, Polypolaron films must be over-coated with a suitable protection film if use in high humidity environments is required.

Polypolaron Film Characteristics



Polypolaron film thickness versus spin speed (rotations per minute)

Polypolaron properties

Composition: 95% PEDOT:PSS, 4% Polyaniline in aqueous medium with added stabilisers

Typical film thickness for microscopy and lithography applications: 100 nm

Refractive index of Polypolaron films: 1.32 (at 589 nm)

Sheet resistivity of 1 micron thick Polypolaron film: 2.5 Ω /sq (typical)

pH of Polypolaron: 2.52

Density : 1 gm/ml

Viscosity: 98 cP at 25 °C

Polypolaron is available in 25 ml and 100 ml plastic containers. Larger quantities are available in alternate packaging. For more information, see the material safety data sheet (MSDS) for Polypolaron or contact ElectrosPELL or its distributors.

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Disclaimer: Information provided here is on a no liability basis. It is the user's responsibility to verify that this product is suitable for any intended application.

