

Electroconductive Organic Nano Metal Aqua Fluid

Experimental Products

ORMECON®

Introduction

Nissan Chemical Industries, Ltd. has begun full market development of **ORMECON®**, an electroconductive polymer (composed by aniline and thiophene) dispersion created by Ormecon GmbH, Germany. The need for easily processable, highly conductive polymers has grown dramatically in recent years as technology for electronics, energy and information industries rapidly advance. In particular, the use of electroconductive polymers in the aromatic family, are predicted to grow dramatically due to their excellent electroconductive properties and thermal stability.

Characteristics

Aqua fluid **ORMECON®** has the following characteristics:

- No In-situ polymerization has required
- Excellent electro conductivity (an Organic Metal)
- Excellent dispersion properties (colloidal dispersion fluid)
- Highly transparent in its conductive state (blue green color)
- Redox-active property

Representative Physical Properties

The representative physical properties of Aqua fluid **ORMECON®** are as follows:

Grade Name		D1033W
Type of solvent		Water
Surface resistivity (Ω/\square)	*1	350
Conductivity (S/cm)	*1	180
Transmittance (%)	*2	96
Haze	*3	<0.5
Solid (wt%)		1.9
Viscosity (25°C, mPa·s)		16
pH		1.8
Particle diameter (nm)	*4	58
Particle shape		Spherical
Dopant		type of Sulfonic acid

*1 : Measured by spin coat film(100rpm×5sec→1,000rpm×10sec), dry condition 100°C/10min, Loresta IP TCP-T250(Mitsubishi Chemical)

*2 : Measured by TOP SCAN Model TC-1800MK II (Tokyo Denshoku). Results are excluded glass substrate itself.

*3 : Measured by SPECTRAL HAZE METER TC-H3DPK-MK II(Tokyo Denshoku).

*4 : Measured by Microtrac® UPA 150 (Microtrac)

Applications

Aqua fluid **ORMECON®** can be used for a broad range of application, such as utilization as an antistatic, electromagnetic interference (EMI) shielding and special conductive ink for nano-print technology. However, in some cases, our company may not be able to accommodate your request. Please feel free to contact us for further details.

* Data in this catalogue indicates an example of measured value.

* The information furnished is believed to be accurate and complete. Buyer assumes all risk of use, storage and handling of these samples.

* Nissan shall not be construed as a permission or recommendation for the use of these samples in the infringement of any existing patent.

* The Sample is described on this catalogue is still R&D stage, and therefore all data might be changed without any notice.

Other Products

Our company also manufactures and sells **CELNAX®**, an inorganic electroconductive metal oxide sol. We would appreciate your consideration on this product as well.

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