

# CYTONIX

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# Overview

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- **Maryland, USA**
- **ISO-certified**
- **Hydrophobic coatings, paints and inks**
- **Oleophobic coatings and inks**
- **Microfluidic microscopy devices**

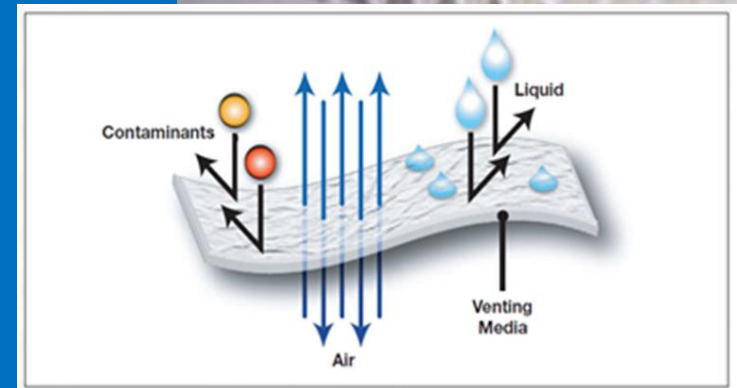
# Company Foci

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- **Oil repellent membrane/vent coatings**
- **Electronic device coatings**
- **Super hydrophobic films**
- **Rain, ice and snow repellent coatings**
- **Ceramic coatings**
- **Fluoro-Surfactants**
- **Microfluidic devices and inks**
- **Hydrophobic photo-resists**
- **Medical device coatings**

# Oil-repellent membrane coatings

- **\$100 million Industry**
- **Mesh and Filters**
- **Gas and sensors**
- **Vented packaging**
- **Spike and IV filter vents**
- **Fuel tank pressure sensors**



# Electronics

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- ▶ **Temperatures of 140°F in 95% relative humidity**
- ▶ **Device withstands salt fog at 98°F for 120 hours**
- ▶ **IPX5 or 7 waterproof (1 meter of water for 30 minutes)**
- ▶ **FluoroPel-602UC achieves this rating without the use of mechanical seals on the device**
- ▶ **602 bluetooth headset: <https://youtu.be/7jzrC65kDbk>**



# Super Hydrophobic Coatings

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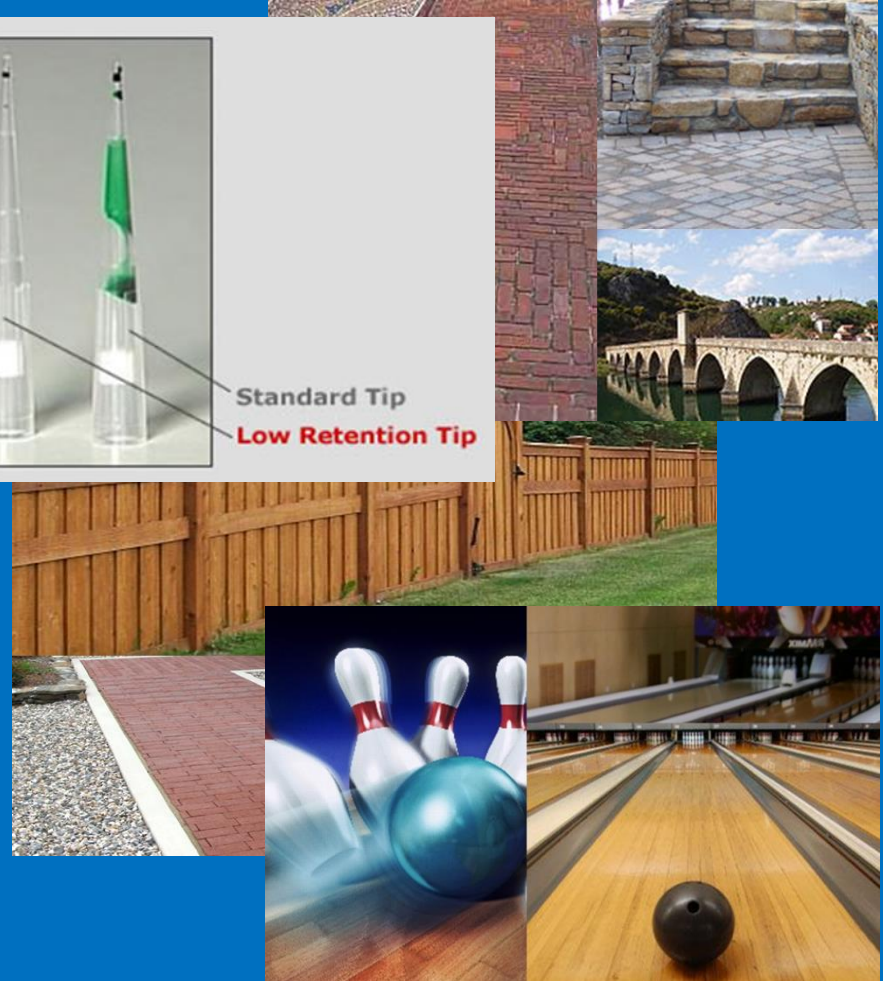
- **Contact angles to water over  $150^\circ$ ; prevents water, ice and snow accumulation**
- **Radomes, microwave dishes, parabolic grid dishes, mobile radio antennas, passive reflectors, 5G antenna and other telecommunication applications**





# Fluoro-Surfactants

- **Family of surfactants**
- **Leveling agents**
- **Hydrophobic additives**
- **Oleophobic additives**
- **Applications include wood conditioners, inks, coatings to reduce freeze-thaw damage, hydrophobic melt additives for plastics, stain repellent floor and automotive coatings**



# Omniphobic coatings

- **Family of glass and metal coatings**
- **Hydrophobic and oleophobic**
- **Extremely durable**
- **Contact angles to water over 100°**
- **Dip, spray or vapor deposition**



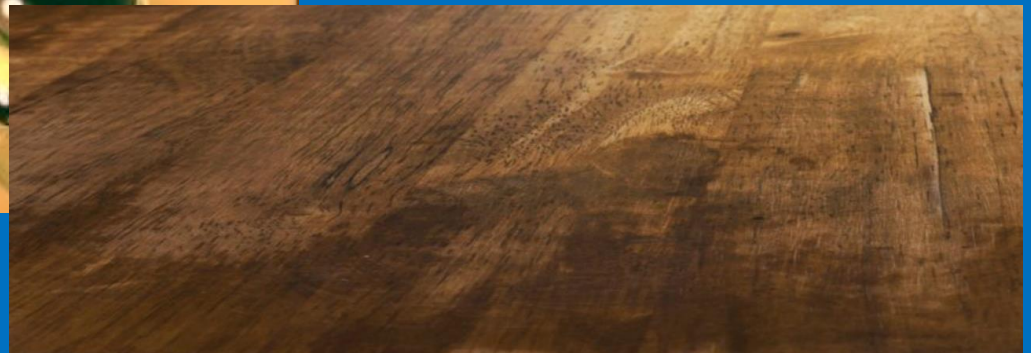
	Control	Soft Cloth Buffed	Windex	250 Steel Wool Rubs	1000 Steel Wool Rubs	5000 Steel Wool Rubs
3750 0.2%	>110°	>110°	>110°	>110°	>110°	>105°
2500 0.2%	>100°	>100°	>90°	>100°	>100°	>100°



# Photo-resists and UV-curable inks

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- **FluorAcryl is a family of hydrophobic and oleophobic coatings**
- **Glass, metal and plastic compatible**
- **UV curable and extremely durable**
- **Contact angles to water over 110°**



# Ceramic Coatings

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- **Liquid co-polymers with  $\text{SiO}_2$**
- **Paint protectant (cars, boats)**
- **Ice repellent (turbine blades)**
- **Hydrophobic, oleophobic**
- **Abrasion-resistant, E2C, 9H-hard**
- **Scratch and fingerprint resistance (E2C) on plastic touch screens**
- **Conformal coating with anti-corrosion and tin-whiskers resistance.**



# Microfluidic Devices and Inks

- Cytology devices
- Inks for microfluidics
- Hydrophobic barriers

