

| SUBSTRATE | COMMON TRADENAMES* | MATERIAL APPLIED BY MICROPEN | FUNCTION ADDED | APPLICATIONS DEMONSTRATED |
|----------------------------------|---|------------------------------|-------------------------------|---|
| POLYMERS | | | | |
| Polyethylene Terephthalate (PET) | Mylar®, Melinex® | Ag, W | Conductivity, Radiopacity | Cardiac ablation balloon, lead on cardiac ablation wire guide |
| Polyurethane | Texin®, Desmopan®, Tecothane®, Estane®, Pellethane® | Ag, TiO2 | Conductivity, Opacity | Capsule antenna, electrode on sheath, visualization |
| Silicone | SilMedic®, BioSil™, Silikophen®, Nusil™ | Ag, W | Conductivity, Radiopacity | Atrial ablation balloon, flexible brain stimulation electrode |
| Silicone-Urethane Copolymer | Elast-Eon™ | Ag, W | Conductivity, Radiopacity | Visualization |
| Polyamide (Nylon) | Vestamid®, Grilamid® | Ag, W | Conductivity, Radiopacity | Sensing on balloon catheter |
| Polyetheramide | PEBAX® | Ag, W | Conductivity, Radiopacity | Catheter stimulation and sensing, ablation catheter |
| Polyetherimide | Ultem® | Ag | Conductivity | Stimulation |
| Polyetherether Ketone | Vestakeep®, PEEK-Optima® | Ag, W | Conductivity, Radiopacity | Heater |
| Polysulfone | Radel®, Udel®, Fortron® | Ag | Conductivity | Sensing |
| Polytetrafluoroethylene (Etched) | Teflon® | Ag, W | Conductivity, Radiopacity | Visualization |
| Polycarbonate | Makrolon®, Calibre™, Lexan® | Ag, W | Radiopacity, Conductivity | Sensing on surgical device |
| Polyvinylidene Fluoride | Dyflor®, Kynar® | W | Radiopacity | Visualization |
| Polyvinyl Chloride | Nakan®, Chlorite™ | Ag | Conductivity | Sensing on endotracheal tube |
| Polyhydroxyalkanoate | Biopol™, Mirel™ | W | Radiopacity | Visualization |
| Liquid Crystal Polymer | Vectra® | Ag | Conductivity | Heater, thermistor |
| Poly(P-Xylylene) | Parylene™ | Ag | Conductivity | Balloon electroporation |
| Styrene-Butadiene | Styrolux® | Ag | Conductivity | Ophthalmic electroporation |
| METALS | | | | |
| Stainless Steel | 316SS, 304SS, 420SS | Various polymers, Ag | Dielectrics, Conductors | Heaters |
| Titanium | — | Au | Conductor | Sensing |
| Silicon | — | Various polymers, Ag | Dielectrics, Conductors | Sensing |
| CERAMICS | | | | |
| Alumina | — | Ag, Au, Pd, Pt | Conductor, Capacitor, | Electrocauterization, heaters, sensors |
| Silica | Pyrex®, Glass, Quartz | Ag, Various polymers | Conductors, Protective layers | Heaters |