

# Miniature PTFE tubing for medical microcatheter

## MAIN ADVANTAGES

- > Ultra thin PTFE tubes with 10µm thickness.
- > Biocompatible.
- > Antimicrobial and anti-thrombogenic characteristics. due to hydrophobic properties.
- > Ultra smooth and auto lubricant surface for an easy insertion of surgical tools.
- > Stiff tube for precise maneuverability by the surgeon.
- > Radio opaque for easy locating under x-ray (optional please consult us)

### **GENERAL CHARACTERISTICS**

- > PFOA free (\*)
- > Temperature range : -90°C/+200°C
- > Semi finished product : PTFE micro tubes are designed to be reinforced by a braided or a wound conductor.
- Delivered in long lengths on a silver plated copper conductor (other conductor on request) and on spools.
- > Flexible solution: a thermoplastic layer can easily be processed by co-extrusion to obtain the catheter which then can be cut-to-length.
- > Available with a high bondability coating (see next page).
  - (\*) PFOA is suspected to have a risk profile similar to PFOS and may be banned in a few years.

    AXON' has anticipated this ban and qualified a new range of environmentally and health-friendly resins free of PFOA.

### **APPLICATIONS**

- > Intracerebral catheters (to treat intracranial aneurism).
- > Fluid sampling or fluid transportation.

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# TECHNICAL CHARACTERISTICS

| NOMINAL INNER<br>DIAMETER (mm) | NOMINAL OUTER<br>DIAMETER (mm) | THICKNESS<br>(± 0.005mm) |
|--------------------------------|--------------------------------|--------------------------|
| 0.430                          | 0.450                          | 0.010                    |
| 0.530                          | 0.550                          | 0.010                    |
| 0.615                          | 0.635                          | 0.010                    |
| 0.735                          | 0.755                          | 0.010                    |
| 0.750                          | 0.770                          | 0.010                    |
| 0.830                          | 0.850                          | 0.010                    |
| 0.430                          | 0.470                          | 0.020                    |
| 0.530                          | 0.570                          | 0.020                    |
| 0.615                          | 0.655                          | 0.020                    |
| 0.735                          | 0.775                          | 0.020                    |
| 0.750                          | 0.790                          | 0.020                    |
| 0.830                          | 0.870                          | 0.020                    |
| 0.430                          | 0.490                          | 0.030                    |
| 0.530                          | 0.590                          | 0.030                    |
| 0.615                          | 0.675                          | 0.030                    |
| 0.735                          | 0.795                          | 0.030                    |
| 0.750                          | 0.810                          | 0.030                    |
| 0.830                          | 0.890                          | 0.030                    |
| 0.430                          | 0.510                          | 0.040                    |
| 0.530                          | 0.610                          | 0.040                    |
| 0.615                          | 0.695                          | 0.040                    |
| 0.735                          | 0.815                          | 0.040                    |
| 0.750                          | 0.830                          | 0.040                    |
| 0.830                          | 0.910                          | 0.040                    |

# **COATING C**

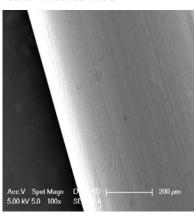
## How can the outer surface of a PTFE tube be made adhesive?

PTFE is known for its anti-adhesive properties which come from the energy strength of the C-F chemical links of this polymer. AXON' CABLE has developed a unique solution called Coating C which makes the surface of a PTFE tube adhesive without any chemical treatment.

It avoids the formation of cracks in the outer tube wall. The Coating C is a very thin film (few microns) working like an interfacial layer on the PTFE tubing outer surface building a micro-structure for the outer material to get mechanically captured.

Compared to existing treatments including chemical etching, Coating C is a more cost-effective, non toxic and long lasting solution. Plasma and Corona pre-treatment do not have an optimum efficiency on PTFE and are not durable.

### TUBING WITHOUT COATING C



### TUBING WITH COATING C

