

Coated Needle Components



The Merit proprietary spool-to-spool coating process makes it possible to apply coating in a cost-effective manner onto needles in various diameters and lengths.



Needle Detail

Merit's PTFE coating for wire- or tube-based needles is extremely thin and uniform. This unique coating layer provides maximum design freedom of the inside diameter for optimal flow rates while maintaining a small outer diameter for less painful insertion.

The PTFE coated tubing offers electrical insulation for low voltage applications such as neuro-stimulation needles. With its in-house knowledge and capabilities, Merit can provide needles that are well-balanced with respect to stiffness and kink resistance for optimal a-traumatic performance.

The needles are available in a variety of colors, and can be supplied in defined lengths, with markers and distal shape finishing such as: angle cut, spiral cut, surface roughening, etc. according to your requirements.

Coated Needle Components Specifications



Needle End

Merit has pioneered and grown the technology of reel-to-reel wire and polymer tube coating and has perfected reliable, cost-efficient coating processes for the medical industry. These processes ensure the very highest levels of quality coated wire and tubing.

Key Characteristics

- Wide range of OD/ID
- Smooth surface
- Ultra-thin, well-defined coating
- Extremely consistent diameter
- Tight coating tolerance (2.5 μm – 5.0 μm)
- Cost-effective coating process

ShieldSkin™ PTFE

- Durable, thick coating
- Smooth surface
- Electrical insulation

LubriSkin™ PTFE

- Soft, flexible thin coating
- Smooth
- Superior lubricity

DuraSkin™ PTFE

- Durable, thin coating
- Smooth surface
- Lubricious

SlipSkin™ Hydrophilic coating

- Increased wet lubricity
- Reduced friction level
- Flexible

Technical Information

Coating

- PTFE (ShieldSkin™, LubriSkin™ and DuraSkin™)
- Hydrophilic (SlipSkin™)

Base Material

- Stainless Steel Wire/Tube (304 or 304V)
- Nitinol Wire/Tube (superelastic or shape memory)
- Other materials on request

Diameter Range

- OD 0.30 mm – 0.90 mm (.012" - .035")
- ID upon request
- Wall as thin as 0.05 mm (.002")

Standard Coating Thickness

- 4 μm – 10 μm (.00016" - .0004") / side
- Other coating thickness upon request

Coating Colors

- Black, Blue, Clear, Green, Grey, White

Delivery Options

- Coated tube on spool
- Straight and cut to length coated tube
- Straight, cut to length coated tube distal end shaped

Applications

- All kinds of hypodermic needles used for i.e. neuro-stimulation
- EMG Needles
- Neuro-Probes



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