## **BULK TUBING**

nstech offers a range of bulk tubing for laboratory animal infusion and microdialysis, including polyethylene, polyurethane, silicone, co-extruded PE/PVC and FEP tubing. Most tubing comes on convenient spools of 30 meters.

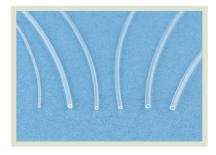


#### TUBING MATERIAL COMPARISON

	Silicone	Polyurethane	Polyethylene	Polyvinyl-chloride
Hemocompatibility	Excellent	Excellent	Fair	Fair
Compound Compatibility	Possible reactivity	Possible reactivity	Inert	Possible reactivity
Stiffness	Soft	Soft	Stiff	Soft or stiff
Ease of Insertion	Difficult	Moderately easy	Easy	Moderately easy
Sizes Available	Many	Many	Many	Few
Ease of Bonding	Excellent	Fair	Poor	Fair
Memory	Excellent	Poor	Poor	Poor
Tear Strength	Poor	Excellent	Excellent	Excellent
Air Permeability	High	Moderate	Low	Low
Sterilization	EtO or steam	Et0	Et0	Et0

Tubing IDs and ODs typically vary by ±.002in (.05mm) from the nominal specs noted here. When dead volume is critical measure it directly by comparing the weights of filled and empty segments.

## Polyethylene Tubing



Instech's PE tubing solves one of the biggest problems with PE: the price. The low density formulation and sizes are comparable to Intramedic<sup>TM</sup> tubing. To avoid kinking, consider co-extruded PE/PVC.

Part No.	Compare	Fits	OD		ID		1mm
BTPE-10	PE 10		.024in	.60mm	.011in	.28mm	0
BTPE-20	PE 20		.043	1.09	.015	.38	0
BTPE-25		25ga	.036	.91	.018	.46	0
BTPE-50	PE 50	22ga	.038	.97	.023	.58	0
BTPE-60	PE 60	20ga	.048	1.22	.030	.76	0
BTPE-90	PE 90		.050	1.27	.034	.86	0
Spool of 30m (98ft), non-sterile. Do not autoclave. Intramedic is a trademark of Becton Dickinson and Company.							
(\$) www.instechlabs.com/Infusion/tubing/polyethylene.php							

## Polyurethane Intravascular Tubing



This is the most commonly used formulation of polyurethane for laboratory animal research. It is the same tubing we use to make our finished catheters. The 2 and 3Fr sizes have been specifically extruded to have ideal fits with PinPorts and Vascular Access Harnesses and Buttons: 2Fr fits 25ga, 3Fr fits 22ga. The 1Fr size is used in two-piece mouse catheters; the 32ga size is used in intrathecal catheters.

Part No.	Size	Fits	OD		ID		1mm
BTPU-010	32ga	-	.010in	.25mm	.005in	.13mm	0
BTPU-014	1Fr	-	.014	.4	.007	.2	0
BTPU-027	2Fr	25ga	.027	.7	.017	.4	0
BTPU-040	3Fr	22ga	.040	1.0	.025	.6	0
2 and 3Fr on spools of 30m (98ft); 1Fr and 32ga on spools of 10m. Non-sterile. Do not autoclave.							
(\$) www.instechlabs.com/Infusion/tubing/polyurethaneIntra.php							



#### Silicone (Silastic®) Intravascular Tubing

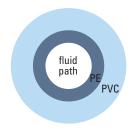


This tubing, made from Dow Corning Silastic®, is the same platinumcure material that has been implanted in laboratory animals for years. Sterilize by EtO gas or steam/autoclave.

Part No.	Size	OD		ID		1mm	
BTSIL-025	2 Fr	.025in	.64mm	.012in	.31mm	0	
BTSIL-037	3 Fr	.037	.94	.020	.51	0	
BTSIL-047	3.5 Fr	.047	1.2	.025	.64	0	
BTSIL-065	5 Fr	.065	1.7	.030	.76	0	
BTSIL-085	7 Fr	.085	2.2	.040	1.0	0	
Spool of 15m (50ft), non-sterile.							
S www.instechlabs.com/Infusion/tubing/silastic.php							

#### Co-extruded PE/PVC Tubing





This tubing is co-extruded with polyethylene on the inside for compound compatibility and PVC on the outside to resist kinking and prevent evaporation.

It is designed for external infusion set connections and is not for intravascular use. Critical joints should be glued to prevent accidental disconnection as this type of tubing can take a set around the stainless steel tube.

It is available in two sizes to mate with 22ga or 25ga swivels, PinPorts, couplers and luer stubs. A version with black PVC is available for protection of light sensitive compounds.

Part No.	Fits	Color	OD		ID		1mm
BTC0EX-25	25ga	Clear	.051in	1.3mm	.017in	.4mm	0
BTC0EX-22	22ga	Clear	.064	1.6	.024	.6	0
BTC0EX-22B	22ga	Black	.072	1.8	.024	.6	0
Spool of 30m (98ft), except black which is spool of 15m (49ft), non-sterile.							
www.instechlabs.com/Infusion/tubing/coex.php							

### Polyurethane External Infusion Tubing



This PU tubing is designed for a reliable friction fit with 22 or 25 gauge swivels and couplers. The elasticity and thick wall minimizes the chance of accidental disconnection, kinking or

perforation. Used in VAH and VAB tethers. The 22ga version is available with a white stripe to differentiate dual channel connections. Not intended for intravascular use.

Part No.	Fits	Stripe	OD		ID		1mm 
VAHBPU-T25	25ga	none	.037in	.9mm	.017in	.4mm	0
VAHBPU-T22	22ga	none	.055	1.4	.024	.6	0
VAHBPU-T22W	22ga	white	.055	1.4	.024	.6	0
Spool of 30m (98ft), non-sterile.							
💲 www.instechlabs.com/Infusion/tubing/pu.php							

#### FEP Microdialysis Tubing



Designed to connect microdialysis probes to swivels, pumps and fraction collectors, this custom-extruded FEP tubing has the same inner and outer diameters as our 22ga quartz-lined swivels: 0.006x0.028in  $(0.15 \times 0.71 \text{mm})$ . Internal volume is approximately 0.18µL/cm. Use MC015/10 tubing connectors.

Part No.	Description	1mm	Unit			
BFEP-T22Q	FEP tubing, .006x.028in, 1m lengths, sterile	0	pkg of 10			
www.instechlabs.com/Infusion/tubing/fep.php						

## Microdialysis Tubing Connectors



These silicone tubing segments are sized to connect FEP microdialysis tubing to swivels, probes, and syringes with no added dead volume. They do not need to be swelled by soaking in alcohol prior to installation, as do traditional "blue widgets," which in turn eliminates the possibility of damage to the swivel when removing tubing.

Part No.	Description	Unit				
MC015/10	Microdialysis tubing connector, .015inIDx10mm	pkg of 100				
www.instechlabs.com/Infusion/tubing/mc.php						

# TUBING CONNECTORS

#### Luer Stubs (Blunt Needles)



Female luer stubs have blunt tips to connect infusion tubing or catheters to syringes or other male luer connectors. The hubs are polypropylene; the tips are stainless steel. Available non-sterile or EtO sterilized.

			Non-ste	rile	Sterile	
Size	Color	Tube Length	100 pcs	1000 pcs	250 pcs	
14ga	dk. green	0.5in (13mm)	LS14	LS14K	LS14S	
15ga	amber	0.5in (13mm)	LS15	LS15K	LS15S	
16ga	violet	0.5in (13mm)	LS16	LS16K	LS16S	
17ga	white	0.5in (13mm)	LS17	LS17K	LS17S	
18ga	green	0.5in (13mm)	LS18	LS18K	LS18S	
20ga	pink	0.5in (13mm)	LS20	LS20K	LS20S	
21ga	purple	0.5in (13mm)	LS21	LS21K	LS21S	
22ga	blue	0.5in (13mm)	LS22	LS22K	LS22S	
22ga	blue	0.25in (6mm)	LS22/6	LS22/6K	LS22/6S	
23ga	orange	0.5in (13mm)	LS23	LS23K	LS23S	
25ga	red	0.5in (13mm)	LS25	LS25K	LS25S	
27ga	gray	0.5in (13mm)	LS27	LS27K	LS27S	
Sterile luer stubs packaged in 50 pouches of 5.						
\$ wv	vw.instechlab	s.com/Infusion/tub	ing/luer.php			



## Couplers & Plugs



Use couplers to connect catheters to external infusion tubing. Use a plug to seal off an externalized catheter before an infusion experiment begins.

These are made of medical grade stainless steel and deburred to prevent damage to tubing. Non-sterile; can be sterilized on request.

Part No.	Туре	Size	Length	Unit	
SC17/15	Coupler	17ga	15mm	pkg of 100	
SC20/15	Coupler	20ga	15mm	pkg of 100	
SC22/15	Coupler	22ga	15mm	pkg of 100	
SC22/8	Coupler	22ga	8mm	pkg of 100	
SC23/8	Coupler	23ga	8mm	pkg of 100	
SC25/10	Coupler	25ga	10mm	pkg of 100	
SC27/8	Coupler	27ga	8mm	pkg of 100	
SP20/12	Plug	20ga	12mm	pkg of 100	
SP22/12	Plug	22ga	12mm	pkg of 100	
SP23/12	Plug	23ga	12mm	pkg of 100	
SP25/12	Plug	25ga	12mm	pkg of 100	
\$\text{ www.instechlabs.com/Infusion/tubing/connectors.php}					

## Right Angle Coupler



These 22ga couplers are bent to a right angle; one side is approximately 11mm; the other 5mm. Provided with a sealed segment of tubing to close off one end.

Part No.	Description	Unit			
SC22/15RA	Right angle couplers, 22ga, sterile	ea			
www.instechlabs.com/Infusion/tubing/ra.php					

