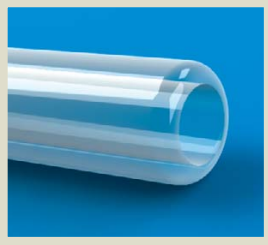


SOLOCATH™ CATHETERS

Instech Solomon has over 25 years experience designing and manufacturing laboratory animal catheters. This expertise translates into dependable designs, high-quality manufacturing and strong technical support.



A critical feature of an Instech Solomon finished catheter is the rounded distal tip. Rounded tips have been shown to be less traumatic to the intimal lining of blood vessels, whereas square cut or bevel cut tips have edges which irritate the intimal lining and hasten the thrombogenic response.

SoloCath catheters are available in silicone, polyurethane or heparin-coated polyurethane and in sizes for mice to large animals. Most models include moveable suture bulbs as a standard feature; other options are available on a customized basis.

SPECIFICATIONS

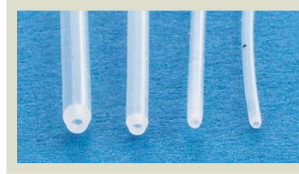
Silicone	2Fr	3Fr	3.5Fr	5Fr	7Fr	
OD (inches)	.025	.037	.047	.065	.085	
ID (inches)	.012	.020	.025	.030	.040	
OD (mm)	0.64	0.94	1.19	1.65	2.16	
ID (mm)	0.30	0.51	0.64	0.76	1.02	
PU / CBAS	1.2Fr ¹	2Fr	3Fr	3.5Fr	5Fr	7Fr
OD (inches)	.016	.025	.036	.047	.065	.096
ID (inches)	.009	.013	.023	.027	.040	.052
OD (mm)	0.41	0.64	0.91	1.19	1.65	2.43
ID (mm)	0.23	0.33	0.58	0.69	1.02	1.32

Applications

Mouse	●	●				
Rat <100g	●	●				
Rat 100-200g		●				
Rat 200-300g		●	●			
Rat 300-350g			●	●		
Cat				●	●	
Rabbit				●	●	●
Dog >8kg					●	●
Mini-Pig, adult					●	●
Pig, adult						●
NHP <1kg		●				
NHP 1-2kg			●			
NHP >2kg			●	●		

Catheter application guide approximate for jugular v, carotid a, femoral a/v.
¹ 1.2Fr indicates dimensions of distal end of PU FunnelCath.

Silicone Catheters



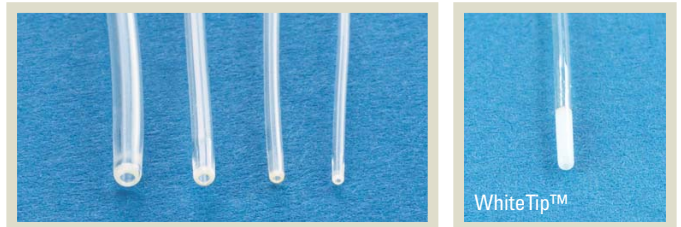
Silicone is the old standard for long-term indwelling central venous catheters in laboratory animals due to its softness and biocompatibility.

Part No.	Description	Unit
SIL-C20	2 French, 60 cm, no luer, no depth markings	ea
SIL-C30	3 French, 60 cm, no luer	ea
SIL-C35	3.5 French, 60 cm, female luer	ea
SIL-C50	5 French, 60 cm, female luer	ea
SIL-C70	7 French, 60 cm, female luer	ea

Clear with round tips, 2 moveable suture bulbs and depth markings (except 2Fr). Individually packaged and EtO sterilized. Minimum order quantity is 5 pieces.

www.instechlabs.com/Infusion/catheters/silicone.php

Polyurethane Catheters



Polyurethane has supplanted silicone as the catheter material of choice for chronic vascular access because of its ease of insertion, durability and biocompatibility.

The new WhiteTip™ catheter features a soft polyurethane tip. Studies have shown that soft round catheter tips result in improved patency. Furthermore, the tip can be viewed under radiographic imaging to confirm proper placement. Currently available in 3 French.

Part No.	Description	Unit
PU-C20	2 French, 60 cm	ea
PU-C30	3 French, 60 cm	ea
PU-C30SOFTW	3 French WhiteTip™, 60 cm	ea
PU-C35	3.5 French, 60 cm	ea
PU-C50	5 French, 60 cm	ea
PU-C70	7 French, 60 cm	ea

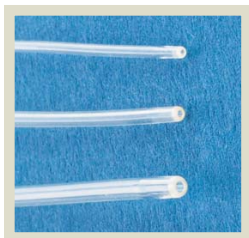
Clear with round tips, 2 moveable suture bulbs and attachment sleeve. No luers or depth markings. Individually packaged and EtO sterilized. Minimum order quantity is 5 pieces.

www.instechlabs.com/Infusion/catheters/PU.php

SoloPort and WhiteTip are trademarks of Solomon Scientific

SOLOCATH™ CATHETERS

CBAS® Heparin-Coated Polyurethane Catheters



CBAS FEATURES

- Heparin bound to catheter – non-leaching
- Remains bioactive for months
- Provided EtO sterilized (do not resterilize)
- Available on polyurethane catheters only

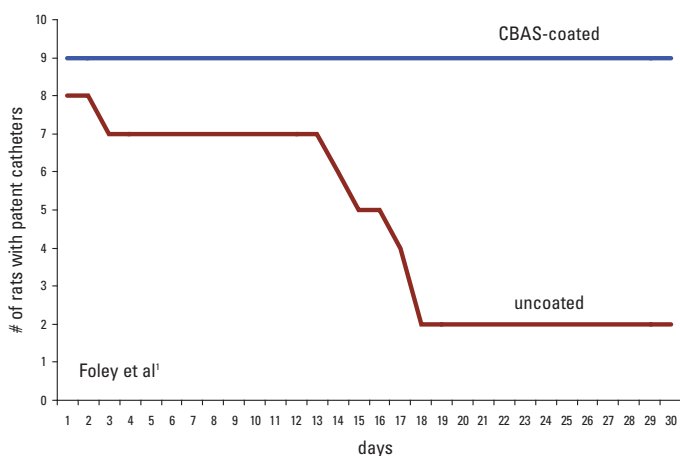
Consider using CBAS® heparin-coated catheters for improved patency in studies lasting two weeks or longer, blood sampling applications, and when working with high-value animals.

CBAS is a patented process from Carmeda® for applying heparin to the surfaces of biomaterials. The active sequence of the heparin molecule serves to halt the clotting cascade. One of the most respected thromboresistant coatings available, CBAS has been used in a number of human medical devices including coronary stents, vascular grafts, oxygenator circuits and artificial hearts.

Foley et al describe longer patency and fewer positive blood cultures from CBAS-coated catheters in rats.¹ While heparin itself is not antimicrobial, it does reduce the aggregation of blood proteins on catheters, thereby minimizing the nutrients and binding sites for many microorganisms. Appelgren et al demonstrated a substantial reduction in infections from CBAS-coated catheters in humans.²

CBAS has also shown benefits in ophthalmic, urinary, lymphatic and intraperitoneal applications. For example, Zareie describes improved patency of intraperitoneal catheters coated with CBAS (80% catheter survival in rats at 5 weeks with CBAS coated catheters, versus 43% with uncoated silicone).³

PERFORMANCE OF CBAS VS. UNCOATED POLYURETHANE CATHETERS IN RATS



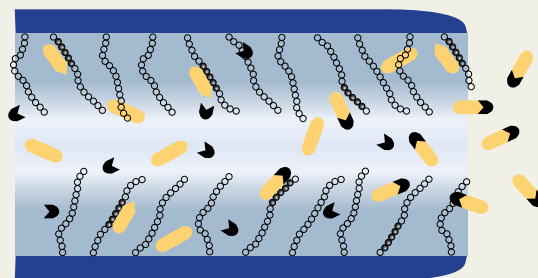
Part No.	Description	Unit
CBAS-C30	3 French, 60 cm	ea
CBAS-C35	3.5 French, 60 cm	ea
CBAS-C50	5 French, 60 cm	ea
CBAS-C70	7 French, 60 cm	ea

Clear with round tips, 2 moveable suture bulbs and attachment sleeve. No luers or depth markings. Individually packaged and EtO sterilized. Minimum order quantity is 5 pieces.

www.instechlabs.com/Infusion/catheters/CBAS.php

CBAS and Carmeda are registered trademarks of Carmeda AB, a subsidiary of W. L. Gore & Associates, Inc. The CBAS coating is under license to Solomon Scientific for laboratory animal applications.

HOW CBAS WORKS



heparin active sequence anti-thrombin conformed anti-thrombin thrombin thrombin-anti-thrombin complex

1. CBAS heparin active sequence is available to bind with antithrombin.
2. Antithrombin conforms to accelerate binding with thrombin and other coagulation factors.
3. Coagulation effect of thrombin is neutralized by formation of thrombin-antithrombin complex.
4. Thrombin-antithrombin complex washes away. CBAS heparin "active sequence" remains intact and is available repeatedly to bind with antithrombin.

Selected CBAS Bibliography

1. Foley P, et al. Effect of covalently bound heparin coating on patency and biocompatibility of long-term indwelling catheters in the rat jugular vein. *Comparative Medicine*. 52:243-8.
2. Appelgren P, et al. Surface heparinization of central venous catheters reduces microbial colonization in vitro and in vivo: results from a prospective, randomized trial. *Crit Care Med*. 24(9):1482-9. 1996.
3. Zareie M, et al. Improvement of a chronic rat model for peritoneal dialysis by using heparin-coated catheters. *Advances in Peritoneal Dialysis*. 20:150-4. 2004.
4. Armander C, et al. Long-term stability in vivo of a thromboresistant heparinized surface. *Biomaterials*. 8:496-9. 1987.
5. Riesenfeld R, et al. Analysis of the heparin coating of EXCOR® ventricular assist device after 855 days in a patient. *Transactions of the 32nd Annual Meeting of the Society for Biomaterials*. 2007.
6. Begovac P, et al. Improvements in GORE-TEX® [WL Gore & Associates] vascular graft performance by Carmeda BioActive Surface heparin immobilization. *Eur J Vasc Endovasc Surg*. 25:432-7. 2003.
7. Jain, G et al. Does Heparin Coating Improve Patency or Reduce Infection of Tunneled Dialysis Catheters. *Clin J Am Soc Nephrol*. 4(11): 1787-1790. 2009.

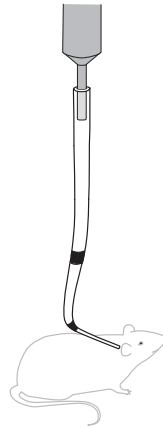
SOLOCATH™ CATHETERS

FunnelCath™ Mouse Catheter

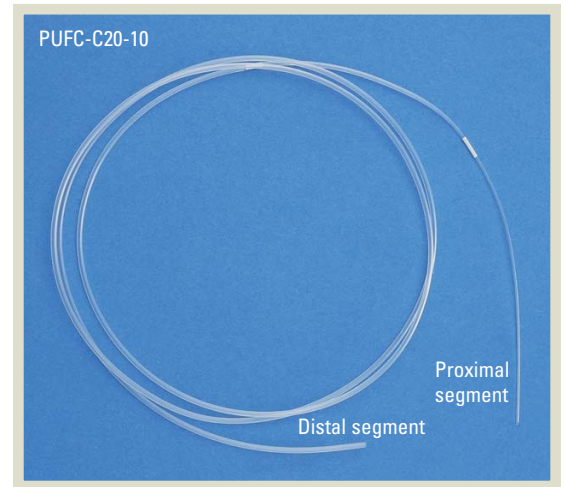
The FunnelCath solves a common problem in mouse infusion: attaching a tiny intravascular catheter to conventional swivels or luer stubs.

In contrast to other methods of producing a tapered catheter, such as stretching heated tubing (which is inconsistent and cumbersome) or bonding a small tube inside a larger tube (which can break or leak), FunnelCaths are tapered during the extrusion process. As a result they are seamless and consistent, catheter to catheter, batch to batch.

FunnelCaths are extruded from the same implant-grade polyurethane used in other SoloCaths, though a bit stiffer to facilitate placement in mice. They are available in two sizes. Both have intravascular segments of approximately 1.2 Fr; one has a 2Fr proximal end that connects to a 25ga swivel or coupler; the other a 3Fr end to connect to a 22ga swivel or coupler.



Attach a 1.2Fr catheter to a 22 or 25ga swivel



Part No.	Description	Unit
PUFC-C20-10	Polyurethane catheter, tapers from 2Fr to 1.2Fr	ea
PUFC-C30-10	Polyurethane catheter, tapers from 3Fr to 1.2Fr	ea

Individually packaged and EtO sterilized. Minimum order quantity is 5 pieces.

www.instechlabs.com/Infusion/catheters/funnel.php

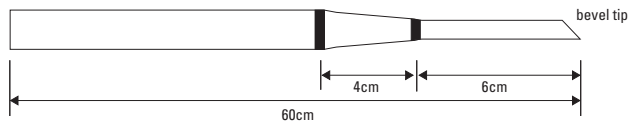
FunnelCath is a trademarks of Solomon Scientific

SPECIFICATIONS

Swivel or luer end Transition zone 1.2Fr intravascular segment

2Fr (ID: 0.46mm, OD: 0.89mm) - connects to 25ga (ID: 0.23mm, OD: 0.41mm)

3Fr (ID: 0.66mm, OD: 1.07mm) - connects to 22ga



SoloCath™ Customization

	DISTAL TIP	ATTACHMENTS	MODIFICATIONS	Attachment sleeve
STANDARD *	Round 	None 	Moveable suture bulbs 	
ALTERNATIVES	Square Bevel 	Luers Ports 	Fixed suture bulbs Suture flange 	Suture disk Dacron® felt Perfusion holes Slit valve

* Unless otherwise indicated in catheter description. To define a custom catheter call us or visit www.instechlabs.com/Infusion/catheters/customcatheter.php