



**Thermo Scientific National AVCS  
9 mm Screw Thread Closures**



# **Innovative Closure Technology**

## **Unmatched performance**

**Thermo**  
SCIENTIFIC

# Understanding your needs exceeding your expectations



Understanding what drives your laboratory helps us deliver products that exceed your expectations. From sample collection to data reporting, more is demanded of you and more is expected of us. One of the most critical areas of your laboratory is the sample handling component of your analyses. Sample vials and their closures need to be more than sample receptacles, they need to improve your productivity and lead the way to improved analytical efficiencies.

The Thermo Scientific™ National AVCS™ (Advanced Vial Closure System) 9 mm screw thread closure is our most recent product innovation and is designed to enhance your work flow by improving how samples are handled. Featuring AVCS technology, these closures will instantly enhance your laboratory's performance.



From improved autosampler compatibility, to elimination of inconsistent vials sealing that threatens to destroy sample integrity, to increased flexibility and handling with vial/ septa combinations, the 9 mm closure will drive your laboratory to even greater performance levels.

At the core of the new National series of closures is the Advanced Vial Closure System technology. Simply stated, AVCS allows your closure to perform like never before. These closures were designed to optimize sealing on the Thermo Scientific SureStop vial and are fully compatible with all of our Thermo Scientific 9 mm screw thread vials.

## Features:

- Septa push through nearly eliminated due to improved interior geometry
- Increased sealing capability
- AVCS provides the freedom to select the best septum for your instrument and applications
- Cost efficient alternative to current choices for resolving push through (bonded septa)
- Optimized ergonomics, fine texturing and evenly spaced ribbing for superior handling, even with poorly fitting gloves
- Rough edges have been eliminated making it easier and more comfortable to use while improving autosampler operation



# Performance, flexibility, innovation unmatched sample handling solutions

## National C5000 Series AVCS 9 mm Open Top Closures

A wide opening vial deserves a wide opening cap closure. Utilizing AVCS technology, the National AVCS 9 mm series wide opening closure increases the available injection area by over 7%, providing greater area for injection needle penetration.

National AVCS closures are offered in a larger assortment of cap colors and septum formulations than any other supplier providing unmatched flexibility in meeting laboratory needs. For easy visual identification of samples around the laboratory, select from a range of colors that can be used with clear, amber or plastic vials.

Previously available solutions for resolving common vial sealing issues, including septa push through, sent most laboratories to a more expensive yet less flexible choice of closure. The AVCS series delivers the flexibility to choose the septum best suited for the analysis.

Long gone are the caps that were rough to the touch, potentially wearing out gloves and hanging up in autosampler mechanisms. The AVCS series is the most ergonomic closure we've ever made.



## Thermo Scientific National AVCS 9 mm Screw Thread Convenience Kits

Kit Type	Glass	Patched	Cap Color	Septum	Vial Cat. No.	Cap Cat. No.	Cat. No.
SureStop Convenience Kit	Clear	No	Blue	Ivory PTFE/Red Rubber	C5000-1	C5000-51B	C5000-580
	Clear	Yes	Blue	Ivory PTFE/Red Rubber	C5000-1W	C5000-51B	C5000-580W
	Clear	No	Blue	Red PTFE/White Silicone	C5000-1	C5000-54B	C5000-592
	Clear	Yes	Blue	Red PTFE/White Silicone	C5000-1W	C5000-54B	C5000-592W
	Clear	Yes	Blue	Red PTFE/White Silicone/Red PTFE	C5000-1W	C5000-53B	C5000-586W
	Clear	Yes	Blue	Blue PTFE/White Silicone, Pre-slit	C5000-1W	C5000-55B	C5000-595W
AVCS Convenience Kit	Clear	No	Blue	Ivory PTFE/Red Rubber	C4000-1	C5000-51B	C5000-80
	Clear	Yes	Blue	Ivory PTFE/Red Rubber	C4000-1W	C5000-51B	C5000-80W
	Amber	Yes	Pink	Ivory PTFE/Red Rubber	C4000-2W	C5000-51P	C5000-82P
	Amber	Yes	Blue	Ivory PTFE/Red Rubber	C4000-2W	C5000-51B	C5000-82W
	Clear	Yes	Blue	Ivory PTFE/Red Rubber, Pre-slit	C4000-1W	C5000-57B	C5000-83W
	Clear	No	Blue	Red PTFE/White Silicone/Red PTFE	C4000-1	C5000-53B	C5000-86
	Clear	Yes	Blue	Red PTFE/White Silicone/Red PTFE	C4000-1W	C5000-53B	C5000-86W
	Amber	Yes	Blue	Red PTFE/White Silicone/Red PTFE	C4000-2W	C5000-53B	C5000-88W
	Polypropylene	No	Blue	Red PTFE/White Silicone	C4000-11	C5000-54B	C5000-87
	Clear	Yes	Black	Red PTFE/White Silicone	C4000-1W	C5000-54A	C5000-91W
	Clear	No	Blue	Red PTFE/White Silicone	C4000-1	C5000-54B	C5000-92
	Clear	No	Pink	Red PTFE/White Silicone	C4000-1	C5000-54P	C5000-92P
	Clear	Yes	Blue	Red PTFE/White Silicone	C4000-1W	C5000-54B	C5000-92W
	Amber	Yes	Pink	Red PTFE/White Silicone	C4000-2W	C5000-54P	C5000-94P
	Amber	Yes	Blue	Red PTFE/White Silicone	C4000-2W	C5000-54B	C5000-94W
	Clear	No	Blue	Blue PTFE/White Silicone, Pre-slit	C4000-1	C5000-55B	C5000-95
	Clear	Yes	Blue	Blue PTFE/White Silicone, Pre-slit	C4000-1W	C5000-55B	C5000-95W
	Clear	No	Blue	Blue PTFE/White Silicone, Pre-slit	C4000-LV1	C5000-55B	C5000-LV95
	Polypropylene	No	Blue	Blue PTFE/White Silicone, Pre-slit	C4000-11	C5000-55B	C5000-97
	Assembled AVCS Kit	Clear	No	Blue	Ivory PTFE/Red Rubber	C4000-1	C5000-51B
Clear		Yes	Blue	Ivory PTFE/Red Rubber	C4000-1W	C5000-51B	C5000-180W
Amber		Yes	Blue	Ivory PTFE/Red Rubber	C4000-2W	C5000-51B	C5000-182W
Clear		Yes	Blue	Ivory PTFE/Red Rubber, Pre-slit	C4000-1W	C5000-57B	C5000-183W
Amber		Yes	Blue	Ivory PTFE/Red Rubber, Pre-slit	C4000-2W	C5000-57B	C5000-184W
Clear		No	Blue	Red PTFE/White Silicone/Red PTFE	C4000-1	C5000-53B	C5000-186
Clear		Yes	Blue	Red PTFE/White Silicone/Red PTFE	C4000-1W	C5000-53B	C5000-186W
Clear		Yes	Red	Red PTFE/White Silicone/Red PTFE	C4000-1W	C5000-53R	C5000-186WR
Amber		Yes	Blue	Red PTFE/White Silicone/Red PTFE	C4000-2W	C5000-53B	C5000-188W
Clear		No	Blue	Red PTFE/White Silicone	C4000-1	C5000-54B	C5000-192
Clear		Yes	Blue	Red PTFE/White Silicone	C4000-1W	C5000-54B	C5000-192W
Amber		Yes	Blue	Red PTFE/White Silicone	C4000-2W	C5000-54B	C5000-194W
Clear		Yes	Blue	Blue PTFE/White Silicone, Pre-slit	C4000-1W	C5000-55B	C5000-195W
Amber		Yes	Blue	Blue PTFE/White Silicone, Pre-slit	C4000-2W	C5000-55B	C5000-196W

\*All items sold in packs of 100.

# Thermo Scientific National AVCS 9mm Screw Thread Closures

Cap Type	Cap Color	Cap Material	Septum	Hardness °shore	Thickness (mm)	Cat. No.	
<b>9 mm Open Top Screw Cap, 6 mm hole</b>	Blue	Polypropylene	—	N/A	N/A	C5000-98B	
	Green	Polypropylene	—	N/A	N/A	C5000-98G	
	Red	Polypropylene	—	N/A	N/A	C5000-98R	
	Yellow	Polypropylene	—	N/A	N/A	C5000-98Y	
	Pink	Polypropylene	—	N/A	N/A	C5000-98P	
<b>Replacement Septa</b>	Black	Polypropylene	—	N/A	N/A	C5000-98A	
	—	—	Ivory PTFE/Red Rubber	35	1	C4000-30	
	—	—	Red PTFE/White Silicone/Red PTFE	45	1	C4000-40	
	—	—	Blue PTFE/White Silicone, Pre-slit	55	1	C4000-55	
<b>9 mm Open Top Cap with Pre-inserted septum, 6 mm hole</b>	—	—	Red PTFE/White Silicone	50	1	C4000-60	
	Blue	Polypropylene	Soft Septum, PTFE/Blue Silicone*	30	1	C5000-44B	
	Blue	Polypropylene	Soft Septum, PTFE/Blue Silicone, Pre-slit*	30	1	C5000-45B	
	Black	Polypropylene	Ivory PTFE/Red Rubber	45	1	C5000-51A	
	Blue	Polypropylene	Ivory PTFE/Red Rubber	45	1	C5000-51B	
	Green	Polypropylene	Ivory PTFE/Red Rubber	45	1	C5000-51G	
	Red	Polypropylene	Ivory PTFE/Red Rubber	45	1	C5000-51R	
	Yellow	Polypropylene	Ivory PTFE/Red Rubber	45	1	C5000-51Y	
	Pink	Polypropylene	Ivory PTFE/Red Rubber	45	1	C5000-51P	
	Black	Polypropylene	Red PTFE/White Silicone/Red PTFE	50	1	C5000-53A	
	Blue	Polypropylene	Red PTFE/White Silicone/Red PTFE	50	1	C5000-53B	
	Green	Polypropylene	Red PTFE/White Silicone/Red PTFE	50	1	C5000-53G	
	Red	Polypropylene	Red PTFE/White Silicone/Red PTFE	50	1	C5000-53R	
	Yellow	Polypropylene	Red PTFE/White Silicone/Red PTFE	50	1	C5000-53Y	
	Pink	Polypropylene	Red PTFE/White Silicone/Red PTFE	50	1	C5000-53P	
	Black	Polypropylene	Red PTFE/White Silicone	55	1	C5000-54A	
	Blue	Polypropylene	Red PTFE/White Silicone	55	1	C5000-54B	
	Green	Polypropylene	Red PTFE/White Silicone	55	1	C5000-54G	
	Red	Polypropylene	Red PTFE/White Silicone	55	1	C5000-54R	
	Yellow	Polypropylene	Red PTFE/White Silicone	55	1	C5000-54Y	
	Pink	Polypropylene	Red PTFE/White Silicone	55	1	C5000-54P	
	Black	Polypropylene	Blue PTFE/White Silicone, Pre-slit	55	1	C5000-55A	
	Blue	Polypropylene	Blue PTFE/White Silicone, Pre-slit	55	1	C5000-55B	
	Green	Polypropylene	Blue PTFE/White Silicone, Pre-slit	55	1	C5000-55G	
	Red	Polypropylene	Blue PTFE/White Silicone, Pre-slit	55	1	C5000-55R	
	Yellow	Polypropylene	Blue PTFE/White Silicone, Pre-slit	55	1	C5000-55Y	
	Pink	Polypropylene	Blue PTFE/White Silicone, Pre-slit	55	1	C5000-55P	
	Blue	Polypropylene	Ivory PTFE/Red Rubber, Pre-slit	55	1	C5000-57B	
	Green	Polypropylene	Ivory PTFE/Red Rubber, Pre-slit	55	1	C5000-57G	
	<b>9 mm Cap with Integral PP Membrane</b>	Clear	Polypropylene	Polypropylene	N/A	N/A	C5000-50
	<b>9 mm Solid Top Cap</b>	Blue	Polypropylene	Polypropylene	N/A	N/A	C5000-50B
		Blue	Polypropylene	Ivory PTFE/Red Rubber	45	1	C5000-99B
	<b>Magnetic 9 mm Open Top Cap, 6 mm hole</b>	Blue	Polypropylene	Soft Septum, PTFE/Blue Silicone	30	1	C5000-46M
		Blue	Polypropylene	Soft Septum, PTFE/Blue Silicone, Pre-slit	30	1	C5000-47M
	<b>9 mm Open Top Screw Cap, 6 mm hole</b>	Blue	Polypropylene	Aluminum Foil Disk with Silicone Sealing Ring	N/A	0.06	C5000-56AL
		Blue	Polypropylene	0.25 mm PTFE Disk with Silicone Sealing Ring	53	0.25	C5000-52AE

\*Soft durometer septa are an effective remedy for piercing problems caused by fragile needles or for any application where penetration of a standard septum is an issue. All items sold in packs of 100.

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