















COLUMN INSTALLS THIS END

Split Liners for Shimadzu 14A GCs		Benefits/Uses:	ID* OD x Length	Similar to Shimadzu part #	ea.	cat.# / price 5-pk.	25-pk.
	Split	universal, for most common analyses	3.5mm 5.0mm x 99mm	221-32544-01	20860	20861	20862
	Cyclo splitter	dirty samples, many injections before cleaning required	3.5mm 5.0mm x 99mm	—	20870	20871	—
	Laminar Cup Splitter	high MW compounds	3.5mm 5.0mm x 99mm	—	20868	20869	—
Splitless Liners for Shimadzu 14A GCs		Benefits/Uses:	ID* OD x Length	Similar to Shimadzu part #	ea.	cat.# / price 5-pk.	25-pk.
	3.5mm Splitless	trace samples	3.5mm 5.0mm x 99mm	221-32544-00	20863	20864	20865
DI Liners for Shimadzu 14A GCs (0.25/0.32/0.53mm ID)		Benefits/Uses	ID* OD x Length	Similar to Shimadzu part #	ea.	cat.# / price 5-pk.	25-pk.
	Uniliner	trace, active samples, high recovery & linearity	3.5mm 5.0mm x 99mm	—	20876	20877	—
	Cyclo-Uniliner	trace, dirty, high MW active samples, high recovery & linearity	3.5mm 5.0mm x 99mm	—	20893	20894	—
Split Liners for Shimadzu 17A, 2010, and 2014 GCs		Benefits/Uses:	ID* OD x Length	Similar to Shimadzu part #	ea.	cat.# / price 5-pk.	25-pk.
	1mm Split	purge & trap, fast GC	1.0mm 5.0mm x 95mm	—	20976	20977	20978
	3.5mm Split	universal, for most common analyses	3.5mm 5.0mm x 95mm	221-41444-01	22283	22284	22285
	Split Precision Liner w/Wool	dirty samples, trace samples	3.5mm 5.0mm x 95mm	—	21020	21021	—
	Cyclo splitter	dirty samples, many injections before cleaning required	3.5mm 5.0mm x 95mm	—	22072	22073	—
	Laminar Cup Splitter	high MW compounds	3.5mm 5.0mm x 99mm	NEW!	22981	22982	—
Splitless Liners for Shimadzu 17A, 2010, and 2014 GCs		Benefits/Uses:	ID* OD x Length	Similar to Shimadzu part #	ea.	cat.# / price 5-pk.	25-pk.
	2mm Gooseneck Splitless	universal, trace samples	2.0mm 5.0mm x 95mm	NEW!	22276	22277	—
	3.5mm Gooseneck Splitless	universal, trace samples	3.5mm 5.0mm x 95mm	221-48335-01	22286	22287	—
	Double Gooseneck Splitless	reduces backflash and catalytic decomposition	3.5mm 5.0mm x 95mm	NEW!	22274	22275	—

*Nominal ID at syringe needle expulsion point.

All liners are **100% deactivated**

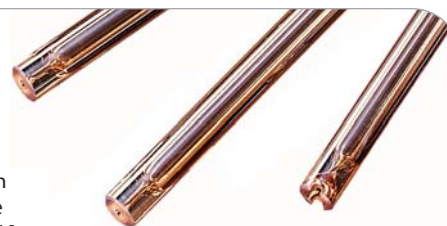
All liners are shipped intermediate polarity (IP) deactivated unless otherwise requested.



Restek can provide any of the liners shown deactivated according to any of our three proprietary processes, including our highly inert Siltek® coating. The processes are described on **page 140** and ordering information is on **page 143**.











Packing materials, including wool and CarboFrits™, can be provided in any liner—subject to the liner ID and geometry. Packing materials are described on **page 141** and ordering information is on **pages 143-144**.



Siltek® Treated Liners

COLUMN INSTALLS THIS END

Split/Splitless Liners for Shimadzu 17A, 2010, and 2014 GCs	Benefits/Uses:	ID* OD x Length	Similar to Shimadzu part #	ea.	cat.# / price 5-pk.	25-pk.
 Split/Splitless w/Wool	universal, for most common analyses	3.5mm 5.0mm x 95mm	221-41444-00	20955	20956	20957
SPME Liner for Shimadzu 17A, 2010, and 2014 GCs	Benefits/Uses	ID* OD x Length	Similar to Shimadzu part #	ea.	cat.# / price 5-pk.	25-pk.
 SPME Liner	ideal for low volume SPME applications	.75mm 5.0mm x 95mm	—	22278	22279	—
Liners for Shimadzu 17A PTV GCs	Benefits/Uses	ID* OD x Length	Similar to Shimadzu part #	ea.	cat.# / price 5-pk.	25-pk.
 17A PTV Liner w/Wool	trace, dirty, high & low MW active samples	1.6mm 4.0mm x 95mm	225-09212-01	21705	21706	21707
DI Liners for Shimadzu 17A, 2010, and 2014 GCs (0.25/0.32/0.53mm ID)	Benefits/Uses	ID* OD x Length	Similar to Shimadzu part #	ea.	cat.# / price 5-pk.	25-pk.
 Uniliner w/Wool	trace, dirty, high MW active samples, high recovery & linearity	3.5mm 5.0mm x 95mm	—	21713	21719	—
 Open-top Drilled Uniliner (hole near top)	trace, active samples, high recovery & linearity	3.5mm 5.0mm x 95mm	—	21285	21286	—
 Open-top Drilled Uniliner (hole near bottom)	trace, active samples, high recovery & linearity	3.5mm 5.0mm x 95mm	—	21287	21288	—
 Gooseneck Drilled Uniliner (hole near top)	trace, active samples, high recovery & linearity	3.5mm 5.0mm x 95mm	—	21289	21290	—
 Gooseneck Drilled Uniliner (hole near bottom)	trace, active samples, high recovery & linearity	3.5mm 5.0mm x 95mm	—	21291	21292	—

*Nominal ID at syringe needle expulsion point.

tech tip

Drilled Uniliner® Liners

Use the Drilled Uniliner® liner with the hole near the bottom for semivolatiles analysis or when compounds of interest could be affected by a tailing solvent peak. Use the Drilled Uniliner® liner with the hole near the top for chlorinated pesticides analysis, aqueous injections, as well as for analysis in which the compounds of interest elute away from the solvent peak.



Restek can provide any of the liners shown deactivated according to any of our three proprietary processes, including our highly inert Siltek® coating. The processes are described on **page 140** and ordering information is on **page 143**.



Packing materials, including wool and CarboFrits™, can be provided in any liner—subject to the liner ID and geometry. Packing materials are described on **page 141** and ordering information is on **pages 143-144**.



Siltek® Treated Liners

Siltek® Treated Metal Inlet Liners for Shimadzu GCs

- Won't crack, chip, or break like glass liners.
- Excellent response for pesticides, phenols, and other active compounds.

Liner Type (3.5mm ID x 5.0mm OD x 95mm)	qty.	cat.#	PRICE
95mm Split/Splitless Siltek Treated Metal Inlet Liners w/Wool	5-pk.	21003	

