

Thermo Scientific
Chromatography Columns
and Consumables 2016-2017

Connected chromatography solutions

Thermo
SCIENTIFIC

Injection Port Liners

LinerGOLD GC Liners

The GOLD standard in GC liner performance!

- **Increased accuracy and sensitivity in analysis** – LinerGOLD prevents the loss of sensitive compounds in analysis
- **Lower detection limits** – when analyzing active and sensitive compounds
- **Excellent reproducibility** – gives confidence in your results from liner to liner – setting the GOLD standard

The GOLD standard in liner consistency

Consistency in your GC liner is of paramount importance – you expect to see a consistently high level of performance time after time. Thermo Scientific™ LinerGOLD™ GC liners are manufactured and tested to ensure that you have confidence with every liner that it installed onto your GC system.

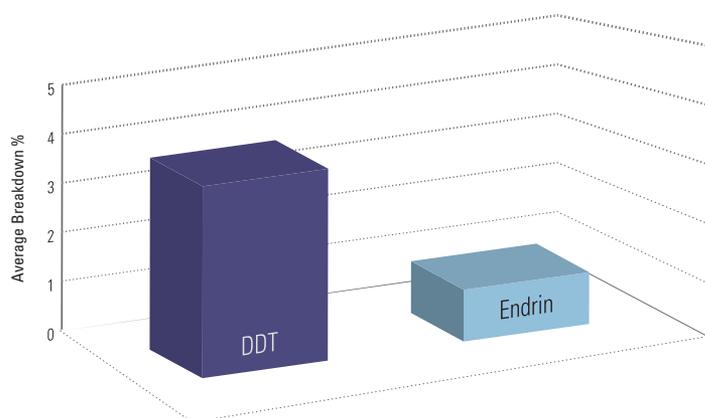


Figure 1: Endrin and DDT breakdown test results showing the lot-to-lot reproducibility and low levels of inertness of LinerGOLD

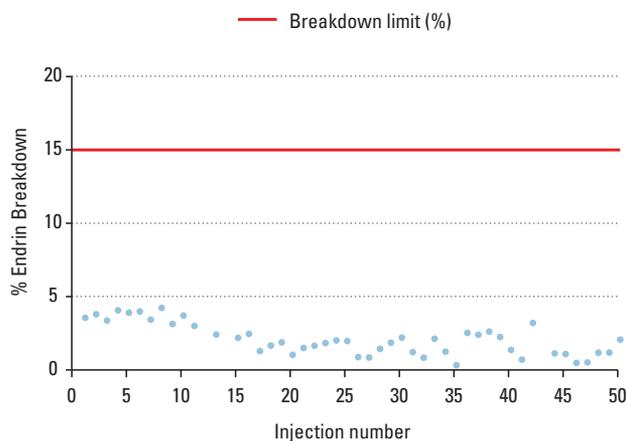
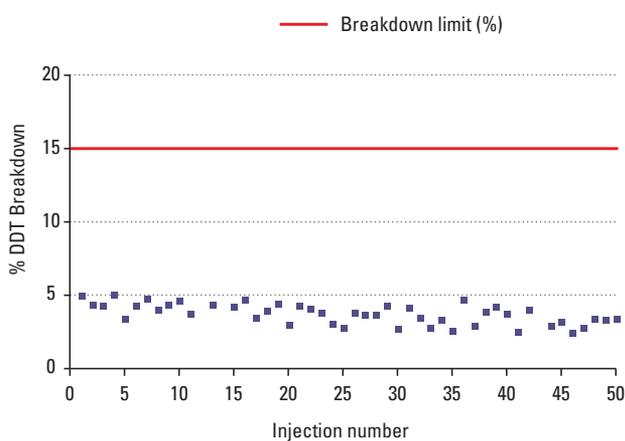
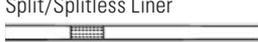
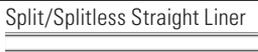
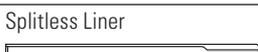


Figure 2: Compound degradation after 50 injections – LinerGOLD exhibits minimal breakdown

LinerGOLD GC Liners for Thermo Scientific TRACE 1300 Series and Agilent Instruments

Injection Type	ID x OD (mm)	Length (mm)	Packing	Cat. No. 1 Pack	Cat. No. 5 Pack	Cat. No. 25 Pack
 Split/Splitless Liner	4 x 6.3	78.5	Quartz Wool	453A0164-UI	453A2265-UI	453A1262-UI
 Split/Splitless Straight Liner	4 x 6.3	78.5	No	453A0294-UI	453A1295-UI	453A2292-UI
 Splitless Liner with Single Taper	4 x 6.3	78.5	No	453A0344-UI	453A1345-UI	453A2342-UI
 Splitless Liner with Single Taper	4 x 6.3	78.5	Quartz Wool	453A0924-UI	453A1925-UI	453A2922-UI
 Splitless Liner with Double Taper	4 x 6.3	78.5	No	453A0354-UI	453A1355-UI	453A2352-UI
 Precision Liner	4 x 6.3	78.5	Quartz Wool	453A0254-UI	453A1255-UI	453A1252-UI
 Direct Straight Liner	1 x 6.3	78.5	No	453A0334-UI	453A1335-UI	453A2332-UI

LinerGOLD GC Liners for Thermo Scientific TRACE Ultra and FOCUS Instruments

Injection Type	ID x OD (mm)	Length (mm)	Packing	Cat. No. 1 Pack	Cat. No. 5 Pack	Cat. No. 25 Pack
 Direct Straight Liner	5 x 8	105	No	45310030-UI	45350030-UI	45354030-UI
 Split Straight Liner	3 x 8	105	No	45310031-UI	45350031-UI	45354031-UI
 Splitless Liner	3 x 8	105	No	45310032-UI	45350032-UI	45354032-UI
 Splitless Liner	5 x 8	105	No	45351033-UI	45350033-UI	45354033-UI
 Precision Liner	5 x 8	105	Quartz Wool	453T0905-UI	453T1905-UI	453T4905-UI
 Splitless Precision Liner	5 x 8	105	Quartz Wool	453T0999-UI	453T2999-UI	453T4999-UI
 Baffled PTV Liner	2 x 2.75	120	No	453T0845-UI	453T2845-UI	453T4845-UI



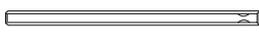
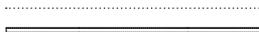
Injection Port Liners for Thermo Scientific Instruments

Highly deactivated and produced to exacting tolerances to ensure a high degree of reproducibility

Liners for Thermo Scientific TRACE 1300 Series SSL Instruments

	Injection Type	ID x OD (mm)	Length (mm)	Packing	Cat. No. 5 Pack	Cat. No. 25 Pack
	Direct Straight Liner	1.2 x 6.3	78.5	No	453A1335	453A2332
	Split Straight Liner	4 x 6.3	78.5	Quartz Wool	453A2265	453A1262
	Split Straight Liner	4 x 6.3	78.5	No	453A1295	453A2292
	Split/Splitless FocusLiner	4 x 6.3	78.5	Quartz Wool	453A1255	453A1252
	Split/Splitless FocusLiner with Single Taper	4 x 6.3	78.5	Quartz Wool	453A1315	453A1312
	Split/Splitless Liner with Single Taper	4 x 6.3	78.5	No	453A1345	453A2342
	Split/Splitless Liner with Double Taper	4 x 6.3	78.5	No	453A1355	453A2352
	Split/Splitless Liner w/ Recessed Gooseneck	4 x 6.3	78.5	Quartz Wool	453A1305	N/A
	Splitless Liner with Single Taper	4 x 6.3	78.5	Quartz Wool	453A1925	N/A
	Split/Splitless Mini-Lam Liner	4 x 6.3	78.5	No	453A2009	N/A
	Split/Splitless Mixed Liner Sample Pack	Mixed	Mixed	Mixed	453TH002	N/A

Liners for Thermo Scientific TRACE 1300 Series and TRACE ULTRA PTV Instruments

	Injection Type	ID x OD (mm)	Length (mm)	Packing	Cat. No. 2 Pack	Cat. No. 5 Pack	Cat. No. 25 Pack
	PTV Straight Liner	1 x 2.75	120	No	N/A	45352054	N/A
	PTV Straight Liner	2 x 2.75	120	No	N/A	45352057	45354057
	PTV Straight Liner (deactivated)	2 x 2.75	120	No	45322045	N/A	N/A
	PTV Liner with Sintered Lining	1 x 2.75	120	No	N/A	45352060	N/A
	PTV Liner with Three Baffles	1 x 2.75	120	No	N/A	45352062	N/A
	PTV Siltek Metal Liner	1 x 2.75	120	No	45322046	N/A	N/A
	PTV Siltek Metal Liner	2 x 2.75	120	No	45322044	N/A	N/A
	PTV Siltek Metal Liner	2 x 2.75	120	Wool	45322056	N/A	N/A
	PTV Baffle Liner (Siltek)	2 x 2.75	120	No	N/A	453T2120	N/A
	PTV Split Liner with Recessed Gooseneck	2 x 2.75	120	Quartz Wool	N/A	45352070	N/A
	PTV Silcosteel Liner for OC	1 x 2.75	120	No	45322052	N/A	N/A
	PTV Mixed Liner Sample Pack	Mixed	Mixed	Mixed	N/A	453TH003	N/A

Liner Sealing Rings for Thermo Scientific Instruments

Description	Cat. No.	Quantity
Liner Sealing Ring for TRACE 1300 Series GC SSL Injector	29001312	1 Each
Liner Sealing Ring for TRACE 1300 Series GC PTV Injector	29001318	1 Each
Liner sealing Ring for TRACE and FOCUS GC SSL Injector	29033406	10 Pack
Liner sealing Ring for TRACE PTV Injector	29013417	2 Pack

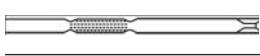
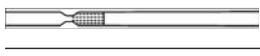
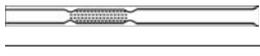
Liners for Thermo Scientific TRACE ULTRA and FOCUS SSL Instruments

	Injection Type	ID x OD (mm)	Length (mm)	Packing	Cat. No. 5 Pack	Cat No. 25 Pack
	Split Straight Liner	5 x 8	105	No	45350030	45354030
	Split Straight Liner	3 x 8	105	No	45350031	45354031
	Split Straight Liner	5 x 8	105	CarboFrit	453T2131	N/A
	Splitless Straight Liner	3 x 8	105	No	45350032	45354032
	Splitless Straight Liner	5 x 8	105	No	45350033	45354033
	Splitless Straight Liner	5 x 8	105	CarboFrit	453T2130	N/A
	Splitless Straight Liner (Siltek)	3 x 8	105	No	453T2121	N/A
	Split FocusLiner for 50mm Needle	5 x 8	105	Quartz Wool	453T1905	453T4905
	Splitless FocusLiner for 50mm Needle	5 x 8	105	Quartz Wool	453T2999	453T4999
	Splitless FocusLiner for 70mm Needle	5 x 8	105	Quartz Wool	453T2895	453T4895
	Baffle Liner	2 x 8	105	No	453T1001	N/A
	Split/Splitless Straight Liner	0.75 x 2.75	105	No	45352083	N/A



Injection Port Liners for Agilent Instruments

Liners for Agilent Instruments

	Injection Type	ID x OD (mm)	Length (mm)	Packing	Cat. No. 5 Pack	Cat No. 25 Pack
	Direct Straight Liner	1.2 x 6.3	78.5	No	453A1335	453A2332
	Split Straight Liner	4 x 6.3	78.5	Quartz Wool	453A2265	453A1262
	Split Straight Liner	4 x 6.3	78.5	No	453A1295	453A2292
	Split/Splitless FocusLiner	4 x 6.3	78.5	Quartz Wool	453A1255	453A1252
	Split/Splitless FocusLiner with Single Taper	4 x 6.3	78.5	Quartz Wool	453A1315	453A1312
	Split/Splitless Liner with Single Taper	4 x 6.3	78.5	No	453A1345	453A2342
	Split/Splitless Liner with Double Taper	4 x 6.3	78.5	No	453A1355	453A2352
	Split/Splitless Liner w/ Recessed Gooseneck	4 x 6.3	78.5	Quartz Wool	453A1305	N/A
	Split/Splitless FAST FocusLiner	2.3 x 6.3	78.5	Quartz Wool	453A1285	453A2282
	Split/Splitless FAST FocusLiner with Single Taper	2.3 x 6.3	78.5	Quartz Wool	453A2375	453A1372
	Splitless Liner with Single Taper	4 x 6.3	78.5	Quartz Wool	453A1925	N/A
	Splitless Straight Liner	2.0 x 6.3	78.5	No	453A2275	N/A
	Splitless Liner with Recessed Gooseneck	2.0 x 6.3	78.5	No	453A2325	N/A
	Cyclo/Single Gooseneck (Deactivated Metal)	5.2 x 6.3	78.5	No	453A2000	N/A
	Single Gooseneck (Deactivated Metal)	5.2 x 6.3	78.5	No	453A2001	N/A
	Cyclosplitter Liner (Deactivated Metal)	5.2 x 6.3	78.5	No	453A2002	N/A
	Split/Splitless Liner with Wool (Deactivated Metal)	5.2 x 6.3	78.5	No	453A2003	N/A
	Split/Splitless Mixed Liner Sample Pack	Mixed	Mixed	No	453AG001	N/A

Liner Sealing Rings for Agilent Instrument

Description	Cat. No.	Quantity
Graphite Liner Sealing Ring for Agilent Direct Straight Liners	290GA242	10 Pack
Graphite Liner Sealing Ring for Agilent SSL Liners	290GA243	10 Pack
Graphite Liner Sealing Ring for Agilent 2.0mm Liners	290GA244	10 Pack

Thermo Scientific GC consumables are suitable for use with Agilent GC systems



Resources

for Chromatographers



Chromatography Resource Center

Our web-based resource center provides technical support, applications, technical tips and literature to help move your separations forward.

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