

# Stable, Low-Bleed Rtx®-XLB Columns

For Maximum Performance from High-Sensitivity GC/MS Systems

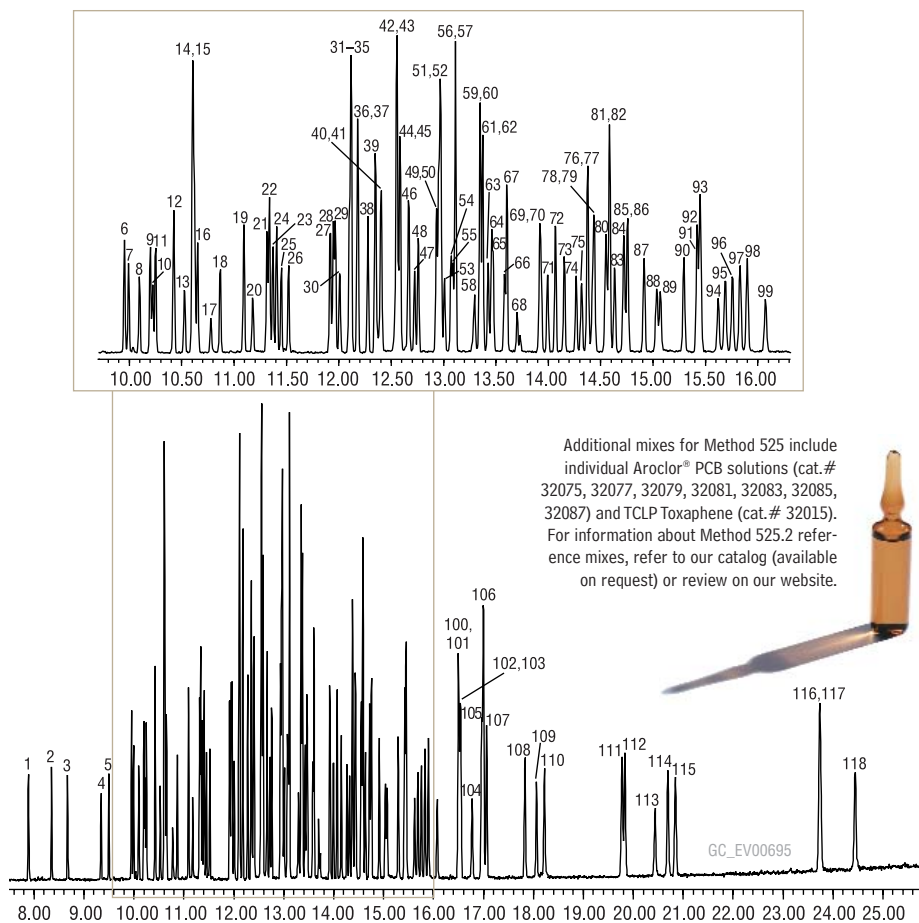
by Gary Stidsen, GC Columns Marketing Manager

- Unique low bleed polymer—ideal for low-level GC/MS.
- Excellent for semivolatiles analysis; equivalent to other “XLB” phases.
- Stable to 360°C; inert to active compounds.
- In stock, ready for delivery.

Use Rtx®-XLB columns in GC/MS analyses requiring a low bleed stationary phase at oven temperatures as high as 360°C. Applications for this stable, low polarity phase include

organochlorine pesticides and herbicides, PCBs, and mixed semivolatiles (Figure 1). The selectivity of Rtx®-XLB columns matches that of DB®-XLB columns.

**Figure 2** An Rtx®-XLB column offers low bleed, inertness, and good resolution of semivolatile environmental pollutants.



Additional mixes for Method 525 include individual Aroclor® PCB solutions (cat.# 32075, 32077, 32079, 32081, 32083, 32085, 32087) and TCLP Toxaphene (cat.# 32015). For information about Method 525.2 reference mixes, refer to our catalog (available on request) or review on our website.

Every Rtx®-XLB column undergoes rigorous quality assurance evaluation for film thickness, bleed (at 340°C), inertness, plates per meter, and retention time indices, to ensure every column we ship meets exacting performance standards and performance is reproduced from column to column. These measures assure you of the highest quality GC/MS column on the market.

1. isophorone
2. 2-nitro-*m*-xylene
3. dichlorvos
4. hexachlorocyclopentadiene
5. EPTC
6. butylate
7. mevinphos
8. vernolate
9. pebulate
10. etridiazole (Terrazole®)
11. dimethylphthalate
12. acenaphthene
13. 2,6-dinitrotoluene
14. acenaphthene-d10
15. 2-chlorobiphenyl (BZ#1)
16. chloroneb
17. tebuthiuron
18. molinate
19. diethyl phthalate
20. 2,4-dinitrotoluene
21. propachlor
22. fluorene
23. ethoprop
24. cycloate
25. trifluralin
26. chlorpropham
27. 2,3-dichlorobiphenyl (BZ#5)
28. atraton
29. prometon
30. α-BHC
31. hexachlorobenzene
32. propazine
33. simazine
34. atrazine
35. metribuzin
36. diazinon
37. terbufos
38. pronamide
39. pentachlorophenol
40. β-BHC
41. disulfoton
42. terbacil
43. phenanthrene-d10
44. methyl parathion OA
45. phenanthrene
46. anthracene
47. γ-BHC (lindane)
48. 2,4,5-trichlorobiphenyl (BZ#29)
49. alachlor
50. prometryne
51. ametryn
52. simetryn
53. δ-BHC
54. heptachlor
55. chlorothalonil
56. di-*n*-butylphthalate
57. terbutryn
58. bromacil
59. chlorpyrifos
60. metolachlor
61. DCPA methyl ester (Dacthal®)
62. 2,2',4,4'-tetrachlorobiphenyl (BZ#47)
63. aldrin
64. triadimefon
65. cyanazine (Bladex)
66. MGK-264
67. diphenamid
68. merphos
69. 2,2',3,4,6-pentachlorobiphenyl (BZ#98)
70. heptachlor epoxide (isomer B)
71. heptachlor epoxide (isomer A)
72. butachlor
73. stirofos (tetrachlorvinphos)
74. fenamiphos
75. α-chlordane
76. napropamide
77. γ-chlordane
78. endosulfan I
79. *trans*-nonachlor
80. pyrene-d10
81. pyrene
82. 4,4'-DDE
83. 2,2',4,4',5,6'-hexachlorobiphenyl (BZ#154)
84. *p*-terphenyl-d14
85. dieldrin
86. carboxin
87. chlorbenzilate
88. tricyclazole
89. endrin
90. 4,4'-DDD
91. bis(2-ethylhexyl)adipate
92. butyl benzyl phthalate
93. endosulfan II
94. endrin aldehyde
95. norflurazon
96. 4,4'-DDT
97. triphenylphosphate
98. hexazinone
99. endosulfan sulfate
100. bis(2-ethylhexyl)phthalate
101. methoxychlor
102. 2,2',3,3',4,5,6,6'-octachlorobiphenyl (BZ#207)
103. 2,2',3,3',4,4',6'-heptachlorobiphenyl (BZ#171)
104. endrin ketone
105. benzo(a)anthracene
106. chrysene-d12
107. chrysene
108. fenarimol
109. *cis*-permethrin
110. *trans*-permethrin
111. benzo(b)fluoranthene
112. benzo(k)fluoranthene
113. fluridone (Sonar®)
114. benzo(a)pyrene
115. perylene-d12
116. dibenzo(a,h)anthracene
117. indeno(1,2,3-*cd*)pyrene
118. benzo(ghi)perylene

## Rtx®-XLB Columns (fused silica) (proprietary low-polarity phase)

ID	df (μm)	temp. limits*	15-Meter	30-Meter	60-Meter
0.25mm	0.10	30 to 340/360°C		12808	
	0.25	30 to 340/360°C	12820	12823	12826
	0.50	30 to 340/360°C		12838	
	1.00	30 to 340/360°C	12850	12853	
0.32mm	0.10	30 to 340/360°C		12809	
	0.25	30 to 340/360°C	12821	12824	12827
	0.50	30 to 340/360°C		12839	
	1.00	30 to 340/360°C		12854	
0.53mm	0.50	30 to 340/360°C		12840	
	1.50	30 to 340/360°C	12867	12870	
ID	df (μm)	temp. limits	12-Meter	20-Meter	25-Meter
0.18mm	0.18	30 to 340/360°C		42802	
0.20mm	0.33	30 to 340/360°C	42815		42820

\*Maximum temperatures listed are for 15- and 30-meter lengths. Longer lengths may have a slightly reduced maximum temperature.

Column: Rtx®-XLB, 30m, 0.25mm ID, 0.25μm cat. # 12823  
 Sample: US EPA Method 525 analytes, 1μL 5ng per analyte reference mixes used: 31824, 32420, 32421, 32422, 32423, 31825, 31826, 31828, 32291, 32415, 32436.  
 Inj.: pressure pulsed (0.4 min. @ 30psi), splitless (hold 0.4 min.), 4mm Drilled Uniliner® inlet liner (cat.# 21055)  
 Inj. Temp.: 300°C  
 Carrier Gas: helium, constant flow  
 Flow Rate: 1.0mL/min.  
 Oven Temp.: 35°C (hold 2 min.) to 260°C @ 20°C/min. (hold 0 min.) to 330°C @ 6°C/min. (hold 5 min.)  
 Det: Agilent 5973 GC/MS  
 Transfer Line Temp.: 280°C  
 Scan Range: 45–550 amu  
 Solvent Delay: 4.7 min.  
 Tune: DFTPP