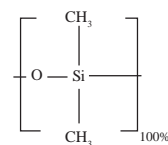


# J & W GC Capillary Columns

## DB-1

- 100% Dimethylpolysiloxane
- Equivalent to USP Phase G2

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.05</b>	10m	0.05µm	325/350	<b>126-1012</b>
	10m	0.20µm	325/350	<b>126-1013</b>
<b>0.10</b>	5m	0.12µm	325/350	<b>127-100A</b>
	10m	0.10µm	325/350	<b>127-1012</b>
	10m	0.12µm	325/350	<b>127-101A</b>
	10m	0.40µm	325/350	<b>127-1013</b>
	20m	0.10µm	325/350	<b>127-1022</b>
	20m	0.40µm	325/350	<b>127-1023</b>
	40m	0.20µm	325/350	<b>127-1046</b>
	40m	0.40µm	325/350	<b>127-1043</b>
<b>0.15</b>	10m	1.20µm	280/300	<b>12A-1015</b>
	25m	1.20µm	280/300	<b>12A-1025</b>
<b>0.18</b>	10m	0.18µm	325/350	<b>121-1012</b>
	10m	0.20µm	325/350	<b>121-101A</b>
	10m	0.40µm	325/350	<b>121-1013</b>
	20m	0.18µm	325/350	<b>121-1022</b>
	20m	0.20µm	325/350	<b>121-102A</b>
	20m	0.40µm	325/350	<b>121-1023</b>
<b>0.2</b>	40m	0.40µm	325/350	<b>121-1043</b>
	12m	0.33µm	325/350	<b>128-1012</b>
	15m	0.20µm	325/350	<b>128-10H7</b>
	25m	0.33µm	325/350	<b>128-1022</b>
<b>0.25</b>	50m	0.33µm	325/350	<b>128-1052</b>
	10m	0.12µm	325/350	<b>122-10H7</b>
	15m	0.10µm	325/350	<b>122-1011</b>
	15m	0.25µm	325/350	<b>122-1012</b>
	15m	0.50µm	325/350	<b>122-101E</b>
	15m	1.00µm	325/350	<b>122-1013</b>
	25m	0.25µm	325/350	<b>122-1022</b>
	30m	0.10µm	325/350	<b>122-1031</b>
	30m	0.25µm	325/350	<b>122-1032</b>
	30m	0.50µm	325/350	<b>122-103E</b>
	30m	1.00µm	325/350	<b>122-1033</b>
	50m	0.25µm	325/350	<b>122-1052</b>
	60m	0.10µm	325/350	<b>122-1061</b>
	60m	0.25µm	325/350	<b>122-1062</b>
	60m	0.50µm	325/350	<b>122-106E</b>
	60m	1.00µm	325/350	<b>122-1063</b>
	100m	0.50µm	325/350	<b>122-10AE</b>
	150m	1.00µm	325/350	<b>122-10G3</b>
<b>0.32</b>	15m	0.10µm	325/350	<b>123-1011</b>
	15m	0.25µm	325/350	<b>123-1012</b>
	15m	0.50µm	325/350	<b>123-101E</b>
	15m	1.00µm	325/350	<b>123-1013</b>
	15m	3.00µm	280/300	<b>123-1014</b>
	15m	5.00µm	280/300	<b>123-1015</b>
	25m	0.12µm	325/350	<b>123-1027</b>
	25m	0.25µm	325/350	<b>123-1022</b>
	25m	0.52µm	325/350	<b>123-1026</b>
	25m	1.05µm	325/350	<b>123-102F</b>



Structure of Dimethylpolysiloxane

## DB-1 Continued

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.32</b>	30m	0.10µm	325/350	<b>123-1031</b>
	30m	0.25µm	325/350	<b>123-1032</b>
	30m	0.50µm	325/350	<b>123-103E</b>
	30m	1.00µm	325/350	<b>123-1033</b>
	30m	1.50µm	300/320	<b>123-103B</b>
	30m	2.00µm	280/300	<b>123-103G</b>
	30m	3.00µm	280/300	<b>123-1034</b>
	30m	5.00µm	280/300	<b>123-1035</b>
	50m	0.25µm	325/350	<b>123-1052</b>
	50m	0.52µm	325/350	<b>123-1056</b>
	50m	1.05µm	325/350	<b>123-105F</b>
	50m	1.20µm	325/350	<b>123-105C</b>
	50m	5.00µm	280/300	<b>123-1055</b>
	60m	0.10µm	325/350	<b>123-1061</b>
	60m	0.25µm	325/350	<b>123-1062</b>
60m	0.50µm	325/350	<b>123-106E</b>	
60m	1.00µm	325/350	<b>123-1063</b>	
60m	1.50µm	300/320	<b>123-106B</b>	
60m	2.00µm	280/300	<b>123-106G</b>	
60m	3.00µm	280/300	<b>123-1064</b>	
60m	5.00µm	280/300	<b>123-1065</b>	
<b>0.45</b>	15m	2.55µm	260/280	<b>124-1014*</b>
	30m	0.42µm	300/320	<b>124-1037*</b>
	30m	1.27µm	300/320	<b>124-1032*</b>
	30m	2.55µm	260/280	<b>124-1034*</b>
	30m	4.25µm	260/280	<b>124-1005*</b>
<b>0.53</b>	5m	2.65µm	260/280	<b>125-100B</b>
	5m	5.00µm	260/280	<b>125-1005</b>
	10m	2.65µm	260/280	<b>125-10HB</b>
	10m	5.00µm	260/280	<b>125-10H5</b>
	15m	0.15µm	340/360	<b>125-1011</b>
	15m	0.25µm	320/340	<b>125-101K</b>
	15m	0.50µm	300/320	<b>125-1017</b>
	15m	1.00µm	300/320	<b>125-101J</b>
	15m	1.50µm	300/320	<b>125-1012</b>
	15m	3.00µm	260/280	<b>125-1014</b>
	15m	5.00µm	260/280	<b>125-1015</b>
	25m	1.00µm	300/320	<b>125-102J</b>
	25m	5.00µm	260/280	<b>125-1025</b>
	30m	0.10µm	340/360	<b>125-1039</b>
	30m	0.25µm	320/340	<b>125-103K</b>
	30m	0.50µm	300/320	<b>125-1037</b>
	30m	0.88µm	300/320	<b>125-103D</b>
	30m	1.00µm	300/320	<b>125-103J</b>
	30m	1.50µm	300/320	<b>125-1032</b>
	30m	2.65µm	260/280	<b>125-103B</b>
30m	3.00µm	260/280	<b>125-1034</b>	
30m	5.00µm	260/280	<b>125-1035</b>	
50m	5.00µm	260/280	<b>125-1055</b>	
60m	1.00µm	300/320	<b>125-106J</b>	
60m	1.50µm	300/320	<b>125-1062</b>	
60m	3.00µm	260/280	<b>125-1064</b>	
60m	5.00µm	260/280	<b>125-1065</b>	
105m	5.00µm	260/280	<b>125-10B5</b>	

\*No special ferrules required for High Speed Megabore 0.45mm I.D.

## DB-1ms

- 100% Dimethylpolysiloxane

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.10</b>	10m	0.10µm	340/360	<b>127-0112</b>
	10m	0.40µm	340/360	<b>127-0113</b>
	20m	0.10µm	340/360	<b>127-0122</b>
	20m	0.40µm	340/360	<b>127-0123</b>
<b>0.20</b>	12m	0.33µm	340/360	<b>128-0112</b>
	25m	0.33µm	340/360	<b>128-0122</b>
<b>0.25</b>	15m	0.25µm	340/360	<b>122-0112</b>
	30m	0.10µm	340/360	<b>122-0131</b>
	30m	0.25µm	340/360	<b>122-0132</b>
	60m	0.25µm	340/360	<b>122-0162</b>
<b>0.32</b>	15m	0.25µm	340/360	<b>123-0112</b>
	30m	0.10µm	340/360	<b>123-0131</b>
	30m	0.25µm	340/360	<b>123-0132</b>
	60m	0.25µm	340/360	<b>123-0162</b>

### Ethylene

**Column:** DB-1ms, 30m x 0.25mm ID, 0.25µm, 122-0132

**Carrier:** Helium at 40cm/sec at 50° C

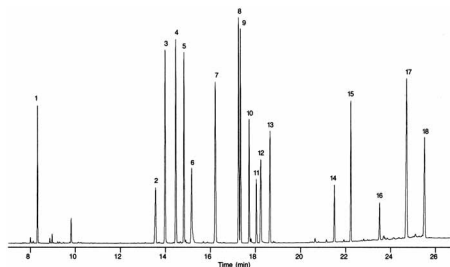
**Oven:** 50° C for 1.0 min  
50-125° C at 25°/min  
125-325° C at 10°/min  
325° C for 5 min

**Injector:** Cold Splitless using Optic II injector  
50-250° C at 10°/sec  
45 sec purge activation time

**Sample:** µL injection of 50-150ppm standard

**Detector:** FID, 300° C

1. Nicotine
2. Caffeine
3. Glutethimide
4. Lidocaine
5. PCP
6. Phenobarbital
7. Methadone primary metabolite
8. Methaqualone
9. Methadone
10. Cocaine
11. Desipramine
12. Carbamazepine
13. Trimipramine
14. Heroin
15. Fentanyl
16. Ibogaine
17. Triazolam
18. LSD



### Narcotics

**Column:** DB-5MS, 30m x 0.25mm ID, 0.25µm, 122-5532

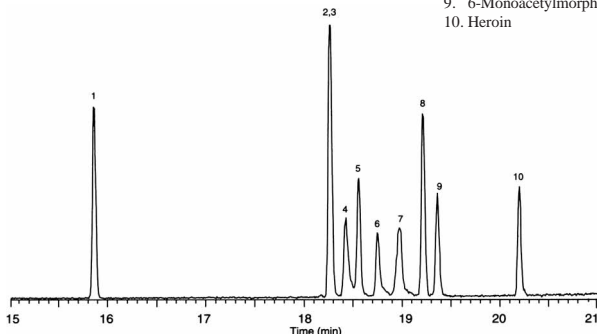
**Carrier:** Helium at 31 cm/sec, measured at 50° C

**Oven:** 50° C for 0.5 min  
50-150° C at 25°/min  
150-325° C at 10°/min

**Injector:** Splitless, 250° C  
30 sec purge activation time

**Detector:** MSD, 300° C transfer line full scan at m/z 40-380

1. Dextromethorphan
2. Codeine
3. Dihydrocodeine
4. Norcodeine
5. Ethylmorphine
6. Morphine
7. Normorphine
8. 6-Acetylcodeine
9. 6-Monoacetylmorphine
10. Heroin



## DB-5ms

- Equivalent to a (5% -Phenyl)-methylpolysiloxane
- Close equivalent to USP Phase G27

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.18</b>	20m	0.18µm	325/350	<b>121-5522</b>
	40m	0.18µm	325/350	<b>121-5542</b>
<b>0.20</b>	12m	0.33µm	325/350	<b>128-5512</b>
	25m	0.33µm	325/350	<b>128-5522</b>
	50m	0.33µm	325/350	<b>128-5552</b>
<b>0.25</b>	15m	0.10µm	325/350	<b>122-5511</b>
	15m	0.25µm	325/350	<b>122-5512</b>
	15m	0.50µm	325/350	<b>122-5516</b>
	15m	1.00µm	325/350	<b>122-5513</b>
	25m	0.25µm	325/350	<b>122-5522</b>
	25m	0.40µm	325/350	<b>122-552A</b>
	30m	0.10µm	325/350	<b>122-5531</b>
	30m	0.25µm	325/350	<b>122-5532</b>
	30m	0.50µm	325/350	<b>122-5536</b>
	30m	1.00µm	325/350	<b>122-5533</b>
<b>0.32</b>	50m	0.25µm	325/350	<b>122-5552</b>
	60m	0.10µm	325/350	<b>122-5561</b>
	60m	0.25µm	325/350	<b>122-5562</b>
	60m	1.00µm	325/350	<b>122-5563</b>
	15m	0.10µm	325/350	<b>123-5511</b>
	15m	0.25µm	325/350	<b>123-5512</b>
	15m	1.00µm	325/350	<b>123-5513</b>
	25m	0.52µm	325/350	<b>123-5526</b>
	30m	0.10µm	325/350	<b>123-5531</b>
	30m	0.25µm	325/350	<b>123-5532</b>
<b>0.53</b>	30m	0.50µm	325/350	<b>123-5536</b>
	30m	1.00µm	325/350	<b>123-5533</b>
	50m	0.25µm	325/350	<b>123-5552</b>
	60m	0.10µm	325/350	<b>123-5561</b>
	60m	0.25µm	325/350	<b>123-5562</b>
	60m	0.50µm	325/350	<b>123-5566</b>
	60m	0.50µm	325/350	<b>123-5566</b>
	60m	1.00µm	325/350	<b>123-5563</b>
	15m	0.50µm	300/320	<b>125-5517</b>
	15m	1.00µm	300/320	<b>125-551J</b>
<b>0.53</b>	15m	1.50µm	300/320	<b>125-5512</b>
	30m	0.50µm	300/320	<b>125-5537</b>
	30m	1.00µm	300/320	<b>125-553J</b>
	30m	1.50µm	300/320	<b>125-5532</b>

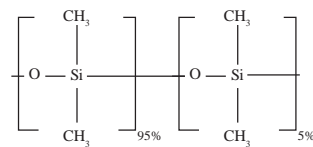
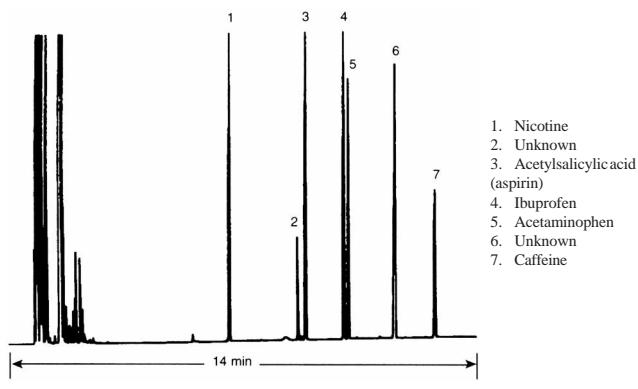
### DB-5ms-MSD Tested

<b>0.25</b>	30m	0.25µm	325/350	<b>122-4532</b>
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# J & W GC Capillary Columns

## Over-the-Counter Pain Killers - TMS Derivatives

**Column:** DB-5, 20m x 0.18mm ID, 0.4µm, 121-5023  
**Carrier:** Helium at 39cm/sec, measured at 100° C  
**Oven:** 100-240° C at 10°/min  
**Injector:** Split 1:100, 250° C  
 1µL of 2µg/µL each in pyridine  
**Detector:** FID, 300° C  
 Nitrogen makeup gas at 30mL/min



Structure of Diphenyldimethylpolysiloxane

## DB-5 Continued

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.25</b>	60m	0.10µm	325/350	<b>122-5061</b>
	60m	0.25µm	325/350	<b>122-5062</b>
	60m	0.50µm	325/350	<b>122-506E</b>
	60m	1.00µm	325/350	<b>122-5063</b>
<b>0.32</b>	15m	0.10µm	325/350	<b>123-5011</b>
	15m	0.25µm	325/350	<b>123-5012</b>
	15m	1.00µm	325/350	<b>123-5013</b>
	25m	0.17µm	325/350	<b>123-502D</b>
	25m	0.25µm	325/350	<b>123-5022</b>
	25m	0.52µm	325/350	<b>123-5026</b>
	25m	1.05µm	325/350	<b>123-502F</b>
	30m	0.10µm	325/350	<b>123-5031</b>
	30m	0.25µm	325/350	<b>123-5032</b>
	30m	0.50µm	325/350	<b>123-503E</b>
	30m	1.00µm	325/350	<b>123-5033</b>
	30m	1.50µm	325/350	<b>123-503B</b>
	50m	0.17µm	325/350	<b>123-505D</b>
	50m	0.25µm	325/350	<b>123-5052</b>
	50m	0.52µm	325/350	<b>123-5056</b>
	50m	1.00µm	325/350	<b>123-5053</b>
50m	1.05µm	325/350	<b>123-505F</b>	
<b>0.45</b>	60m	0.10µm	325/350	<b>123-5061</b>
	60m	0.25µm	325/350	<b>123-5062</b>
	60m	0.50µm	325/350	<b>123-506E</b>
	60m	1.00µm	325/350	<b>123-5063</b>
	15m	1.27µm	300/320	<b>124-5012*</b>
<b>0.45</b>	30m	0.42µm	300/320	<b>124-5037*</b>
	30m	1.27µm	300/320	<b>124-5032*</b>
	30m	4.25µm	260/280	<b>124-5035*</b>
<b>0.53</b>	10m	2.00µm	300/320	<b>125-50H3</b>
	10m	2.65µm	260/280	<b>125-50HB</b>
	10m	5.00µm	260/280	<b>125-50H5</b>
	15m	0.25µm	300/320	<b>125-501K</b>
	15m	0.50µm	300/320	<b>125-5017</b>
	15m	1.00µm	300/320	<b>125-501J</b>
	15m	1.50µm	300/320	<b>125-5012</b>
	15m	3.00µm	260/280	<b>125-5014</b>
	15m	5.00µm	260/280	<b>125-5015</b>
	25m	2.00µm	300/320	<b>125-5023</b>
	25m	5.00µm	260/280	<b>125-5025</b>
	30m	0.25µm	300/320	<b>125-503K</b>
	30m	0.50µm	300/320	<b>125-5037</b>
	30m	0.88µm	300/320	<b>125-503D</b>
	30m	1.00µm	300/320	<b>125-503J</b>
30m	1.50µm	300/320	<b>125-5032</b>	
30m	2.65µm	260/280	<b>125-503B</b>	
30m	3.00µm	260/280	<b>125-5034</b>	
30m	5.00µm	260/280	<b>125-5035</b>	
50m	1.00µm	300/320	<b>125-505J</b>	
60m	1.50µm	300/320	<b>125-5062</b>	
60m	3.00µm	260/280	<b>125-5064</b>	
60m	5.00µm	260/280	<b>125-5065</b>	

\*No special ferrules required for High Speed Megabore 0.45mm I.D.

## DB-5

- 5%-Phenyl-methylpolysiloxane
- Equivalent to USP Phase G27

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.05</b>	10m	0.05µm	325/350	<b>126-5012</b>
	10m	0.20µm	325/350	<b>126-5013</b>
<b>0.10</b>	5m	0.12µm	325/350	<b>127-500A</b>
	10m	0.10µm	325/350	<b>127-5012</b>
	10m	0.17µm	325/350	<b>127-501E</b>
	10m	0.33µm	325/350	<b>127-501N</b>
	10m	0.40µm	325/350	<b>127-5013</b>
	20m	0.10µm	325/350	<b>127-5022</b>
	20m	0.40µm	325/350	<b>127-5023</b>
	40m	0.20µm	325/350	<b>127-5046</b>
<b>0.15</b>	10m	1.20µm	300/320	<b>12A-5015</b>
<b>0.18</b>	10m	0.18µm	325/350	<b>121-5012</b>
	10m	0.40µm	325/350	<b>121-5013</b>
	20m	0.18µm	325/350	<b>121-5022</b>
	20m	0.40µm	325/350	<b>121-5023</b>
	40m	0.18µm	325/350	<b>121-5042</b>
	40m	0.40µm	325/350	<b>121-5043</b>
<b>0.20</b>	12m	0.33µm	325/350	<b>128-5012</b>
	15m	0.20µm	325/350	<b>128-50H7</b>
	25m	0.11µm	325/350	<b>128-5021</b>
	25m	0.33µm	325/350	<b>128-5022</b>
	50m	0.11µm	325/350	<b>128-5051</b>
	50m	0.33µm	325/350	<b>128-5052</b>
<b>0.25</b>	15m	0.10µm	325/350	<b>122-5011</b>
	15m	0.25µm	325/350	<b>122-5012</b>
	15m	0.50µm	325/350	<b>122-501E</b>
	15m	1.00µm	325/350	<b>122-5013</b>
	25m	0.25µm	325/350	<b>122-5022</b>
	25m	1.20µm	300/320	<b>122-502C</b>
	30m	0.10µm	325/350	<b>122-5031</b>
	30m	0.25µm	325/350	<b>122-5032</b>
	30m	0.50µm	325/350	<b>122-503E</b>
	30m	1.00µm	325/350	<b>122-5033</b>
	50m	0.25µm	325/350	<b>122-5052</b>

## DB-35

- (35%-Phenyl)-methylpolysiloxane
- Inert to active solutes
- Ideal for confirmational analyses
- Equivalent to USP Phase G42

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.25</b>	30m	0.25µm	300/320	<b>122-1932</b>
	30m	0.50µm	300/320	<b>122-1933</b>
	30m	1.00µm	280/300	<b>122-1934</b>
	60m	0.25µm	300/320	<b>122-1962</b>
<b>0.32</b>	30m	0.25µm	300/320	<b>123-1932</b>
	30m	0.50µm	300/320	<b>123-1933</b>
	60m	0.25µm	300/320	<b>123-1962</b>
<b>0.53</b>	15m	1.00µm	280/300	<b>125-1912</b>
	30m	0.50µm	280/300	<b>125-1937</b>
	30m	1.00µm	260/280	<b>125-1932</b>
	60m	1.00µm	280/300	<b>125-1962</b>

## DB-XLB

- Exceptionally Low Bleed
- Ideal for confirmational analyses
- Excellent for pesticides, herbicides, PCBs and PAHs
- Certified for MS

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.18</b>	20m	0.18µm	340/360	<b>121-1222</b>
	30m	0.18µm	340/360	<b>121-1232</b>
	60m	0.18µm	340/360	<b>121-1262</b>
<b>0.20</b>	12m	0.33µm	340/360	<b>128-1212</b>
	25m	0.33µm	340/360	<b>128-1222</b>
<b>0.25</b>	15m	0.10µm	340/360	<b>122-1211</b>
	15m	0.25µm	340/360	<b>122-1212</b>
	15m	1.00µm	340/360	<b>122-1213</b>
	30m	0.10µm	340/360	<b>122-1231</b>
	30m	0.25µm	340/360	<b>122-1232</b>
	30m	0.50µm	340/360	<b>122-1236</b>
	30m	1.00µm	340/360	<b>122-1233</b>
	60m	0.25µm	340/360	<b>122-1262</b>
<b>0.32</b>	15m	0.25µm	340/360	<b>123-1212</b>
	15m	1.00µm	340/360	<b>123-1213</b>
	30m	0.10µm	340/360	<b>123-1231</b>
	30m	0.25µm	340/360	<b>123-1232</b>
	30m	0.50µm	340/360	<b>123-1236</b>
	30m	1.00µm	340/360	<b>123-1233</b>
	60m	0.25µm	340/360	<b>123-1262</b>
	<b>0.45</b>	30m	1.27µm	320/340
<b>0.53</b>	15m	1.50µm	320/340	<b>125-1212</b>
	30m	1.50µm	320/340	<b>125-1232</b>

### DB-XLB-MSD Tested

<b>0.25</b>	30m	0.25µm	340/360	<b>122-4432</b>
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\*No special ferrules required for High Speed Megabore 0.45mm I.D.

## DB-35ms

- Equivalent to (35%-Phenyl)-methylpolysiloxane
- Close equivalent to USP Phase G42

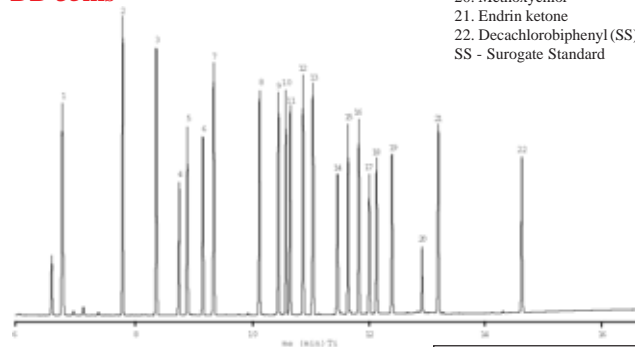
ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.20</b>	15m	0.33µm	340/360	<b>128-3812</b>
	25m	0.33µm	340/360	<b>128-3822</b>
<b>0.25</b>	15m	0.25µm	340/360	<b>122-3812</b>
	30m	0.15µm	340/360	<b>122-3831</b>
	30m	0.25µm	340/360	<b>122-3832</b>
	60m	0.25µm	340/360	<b>122-3862</b>
	60m	0.25µm	340/360	<b>123-3812</b>
<b>0.32</b>	15m	0.25µm	340/360	<b>123-3812</b>
	30m	0.25µm	340/360	<b>123-3832</b>
	60m	0.25µm	340/360	<b>123-3862</b>
<b>0.53</b>	15m	1.00µm	320/340	<b>125-3812</b>
	30m	0.50µm	320/340	<b>125-3837</b>
	30m	1.00µm	320/340	<b>125-3832</b>

### CLP Pesticides

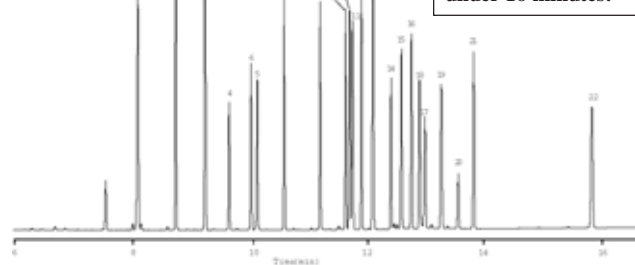
**Column:** DB-35ms, 30m x 0.32mm ID, 0.25µm, 123-3832  
**Column:** DB-XLB, 30m x 0.32mm ID, 0.5µm, 123-1236  
**Carrier:** Helium at 45cm/sec (EPC in constant flow mode)  
**Oven:** 110° C for 0.5min  
 110-320° C at 15°/min  
 320° C for 2min  
**Injector:** Splitless, 250° C  
 30 sec purge activation time  
 50pg per component  
**Detector:** µECD, 350° C  
 Nitrogen makeup gas  
 (column + makeup flow = 30mL/min constant flow)

1. Tetrachloro-m-xylene (SS)
2. α-BHC
3. γ-BHC
4. β-BHC
5. Heptachlor
6. δ-BHC
7. Aldrin
8. Heptachlor epoxide
9. γ-Chlordane
10. α-Chlordane
11. Endosulfan I
12. 4,4'-DDE
13. Dieldrin
14. Endrin
15. 4,4'-DDD
16. Endosulfan II
17. 4, 4'-DDT
18. Endrin aldehyde
19. Endosulfan sulfate
20. Methoxychlor
21. Endrin ketone
22. Decachlorobiphenyl (SS)
- SS - Surogate Standard

### DB-35ms



### DB-XLB



**Complete resolution and confirmation of 22 CLP Pesticides in under 16 minutes!**

# J & W GC Capillary Columns

## DB-17ms

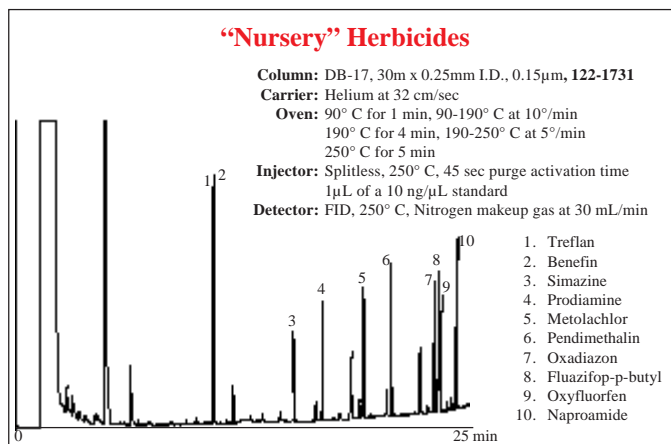
- Equivalent to a (50%-Phenyl)-methylpolysiloxane
- Best column for CLP pesticides

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.18</b>	20m	0.18µm	320/340	<b>121-4722</b>
<b>0.25</b>	15m	0.15µm	320/340	<b>122-4711</b>
	15m	0.25µm	320/340	<b>122-4712</b>
	30m	0.15µm	320/340	<b>122-4731</b>
	30m	0.25µm	320/340	<b>122-4732</b>
	60m	0.25µm	320/340	<b>122-4762</b>
<b>0.32</b>	15m	0.15µm	320/340	<b>123-4711</b>
	15m	0.25µm	320/340	<b>123-4712</b>
	30m	0.15µm	320/340	<b>123-4731</b>
	30m	0.25µm	320/340	<b>123-4732</b>

## DB-17

- (50%-Phenyl)-methylpolysiloxane
- Equivalent to USP Phase G3

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.05</b>	10m	0.10µm	280/300	<b>126-1713</b>
<b>0.10</b>	10m	0.10µm	280/300	<b>127-1712</b>
	10m	0.20µm	280/300	<b>127-1713</b>
	20m	0.10µm	280/300	<b>127-1722</b>
	20m	0.20µm	280/300	<b>127-1723</b>
<b>0.18</b>	10m	0.18µm	280/300	<b>121-1712</b>
	10m	0.30µm	280/300	<b>121-1713</b>
	20m	0.18µm	280/300	<b>121-1722</b>
	20m	0.30µm	280/300	<b>121-1723</b>



## DB-17 Continued

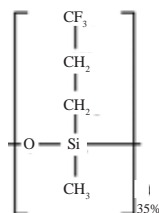
ID(mm)	Length	Film	Iso/Prog	Cat. No.	
<b>0.20</b>	25m	0.16µm	280/300	<b>128-1721</b>	
<b>0.25</b>	15m	0.15µm	280/300	<b>122-1711</b>	
	15m	0.25µm	280/300	<b>122-1712</b>	
	15m	0.50µm	280/300	<b>122-1713</b>	
	30m	0.15µm	280/300	<b>122-1731</b>	
	30m	0.25µm	280/300	<b>122-1732</b>	
	30m	0.50µm	280/300	<b>122-1733</b>	
	60m	0.25µm	280/300	<b>122-1762</b>	
	60m	0.50µm	280/300	<b>122-1763</b>	
	<b>0.32</b>	15m	0.15µm	280/300	<b>123-1711</b>
		15m	0.25µm	280/300	<b>123-1712</b>
15m		0.50µm	280/300	<b>123-1713</b>	
30m		0.15µm	280/300	<b>123-1731</b>	
30m		0.25µm	280/300	<b>123-1732</b>	
30m		0.50µm	280/300	<b>123-1733</b>	
60m		0.25µm	280/300	<b>123-1762</b>	
60m		0.50µm	280/300	<b>123-1763</b>	
<b>0.45</b>		15m	0.85µm	260/280	<b>124-1712*</b>
		30m	0.85µm	260/280	<b>124-1732*</b>
<b>0.53</b>	5m	2.00µm	260/280	<b>125-1704</b>	
	15m	0.10µm	260/280	<b>125-1719</b>	
	15m	0.25µm	260/280	<b>125-1711</b>	
	15m	0.50µm	280/300	<b>125-1717</b>	
	15m	1.00µm	260/280	<b>125-1712</b>	
	15m	1.50µm	260/280	<b>125-1713</b>	
	30m	0.25µm	260/280	<b>125-1731</b>	
	30m	0.50µm	260/280	<b>125-1737</b>	
	30m	1.00µm	260/280	<b>125-1732</b>	
	30m	1.50µm	260/280	<b>125-1733</b>	
	60m	1.00µm	260/280	<b>125-1762</b>	
	60m	1.50µm	260/280	<b>125-1763</b>	

\*No special ferrules required for High Speed Megabore 0.45mm I.D.

## DB-23

- (50%-Cyanopropyl)-methylpolysiloxane
- Separation of fatty acid methyl esters (FAMES) –  
For maximum resolution of FAMES, check out Agilent’s new HP-88 on page 4
- Excellent resolution for cis- and trans-isomers
- Close equivalent to USP Phase G5

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.18</b>	20m	0.20µm	250/260	<b>121-2323</b>
<b>0.25</b>	15m	0.25µm	250/260	<b>122-2312</b>
	30m	0.15µm	250/260	<b>122-2331</b>
	30m	0.25µm	250/260	<b>122-2332</b>
	60m	0.15µm	250/260	<b>122-2361</b>
	60m	0.25µm	250/260	<b>122-2362</b>
	<b>0.32</b>	15m	0.25µm	250/260
30m		0.15µm	250/260	<b>123-2331</b>
30m		0.25µm	250/260	<b>123-2332</b>
60m		0.15µm	250/260	<b>123-2361</b>
60m		0.25µm	250/260	<b>123-2362</b>
<b>0.53</b>		15m	0.50µm	230/240
	30m	0.50µm	230/240	<b>125-2332</b>

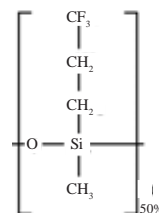
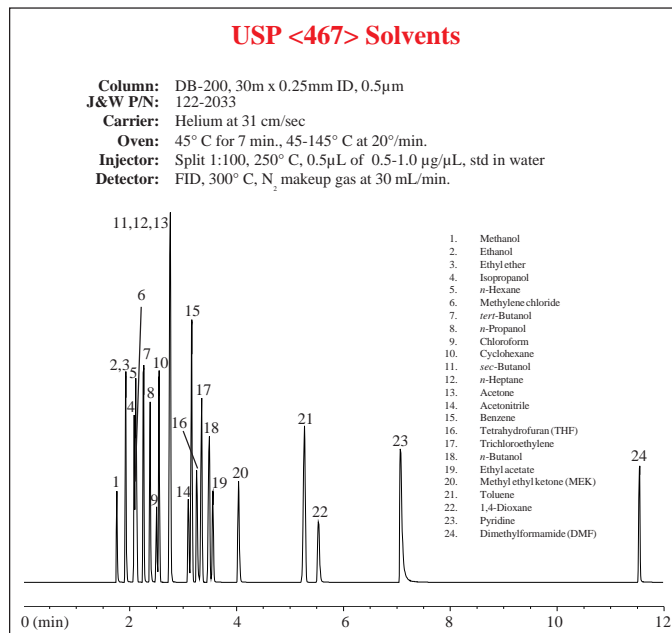


Structure of Trifluoropropylmethylpolysiloxane

## DB-200

- 35% (Trifluoropropyl)-methylpolysiloxane
- Midpolarity (more polar than DB-1701 or DB-17)
- Ideal for difficult to separate positional isomers
- Unique interactions with compounds containing nitro, halogen and carbonyl groups
- Low ECD bleed
- Close equivalent to USP Phase G6

ID(mm)	Length	Film	Iso/Prog	Cat. No.
0.18	20m	0.40µm	300/320	121-2023
0.25	15m	0.25µm	300/320	122-2012
	15m	0.50µm	300/320	122-2013
	30m	0.25µm	300/320	122-2032
	30m	0.50µm	300/320	122-2033
0.32	30m	0.25µm	300/320	123-2032
	30m	0.50µm	300/320	123-2033
0.53	15m	1.00µm	280/300	125-2012
	30m	0.50µm	280/300	125-2037
	30m	1.00µm	280/300	125-2032

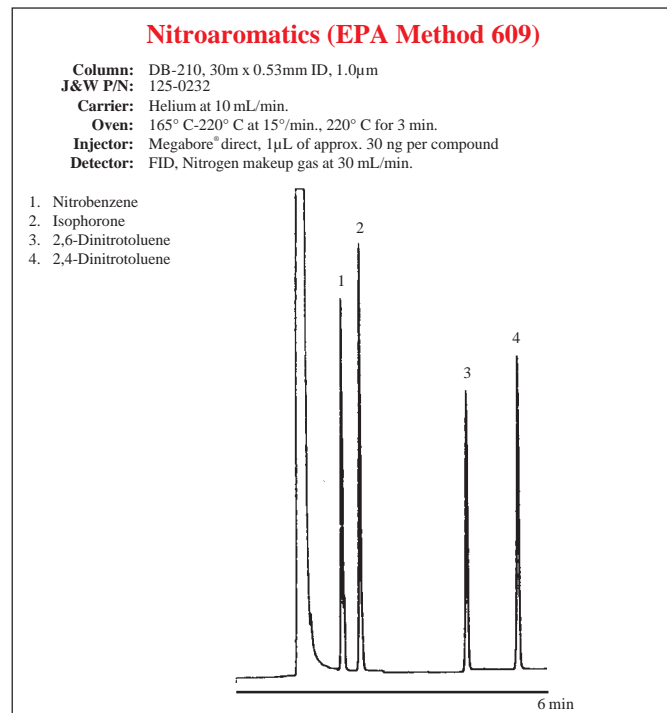


Structure of Trifluoropropylmethylpolysiloxane

## DB-210

- (50%-Trifluoropropyl)-methylpolysiloxane
- High polarity
- U.S. EPA Methods 8140 and 609
- Close equivalent to USP Phase G6

ID(mm)	Length	Film	Iso/Prog	Cat. No.
0.18	20m	0.30µm	240/260	121-0223
0.25	15m	0.25µm	240/260	122-0212
	30m	0.25µm	240/260	122-0232
	30m	0.50µm	240/260	122-0233
0.32	15m	0.25µm	240/260	123-0212
	15m	0.50µm	240/260	123-0213
	30m	0.15µm	240/260	123-0231
	30m	0.25µm	240/260	123-0232
	30m	0.50µm	240/260	123-0233
	30m	0.50µm	240/260	123-0233
0.53	15m	1.00µm	220/240	125-0212
	30m	1.00µm	220/240	125-0232



# J & W GC Capillary Columns

## DB-225

- (50%-Cyanopropylphenyl)-dimethylpolysiloxane
- Mid / high polarity
- Excellent for separations of cis- and trans-fatty acid methyl esters (FAMES)
- Close equivalent to USP Phase G7

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.10</b>	20m	0.10µm	220/240	<b>127-2222</b>
<b>0.18</b>	20m	0.20µm	220/240	<b>121-2223</b>
<b>0.25</b>	15m	0.25µm	220/240	<b>122-2212</b>
	30m	0.15µm	220/240	<b>122-2231</b>
	30m	0.25µm	220/240	<b>122-2232</b>
<b>0.32</b>	15m	0.25µm	220/240	<b>123-2212</b>
	30m	0.15µm	220/240	<b>123-2231</b>
	30m	0.25µm	220/240	<b>123-2232</b>
<b>0.53</b>	15m	1.00µm	200/220	<b>125-2212</b>
	30m	0.50µm	200/220	<b>125-2237</b>
	30m	1.00µm	200/220	<b>125-2232</b>



## DB-624

- Designed for the analysis of volatile priority pollutants
- No cryogenics needed for U.S. EPA 502.2
- Excellent for U.S. EPA Methods: 501.3, 502.2, 503.1, 524.2, 601, 8010, 8015, 8020, 8240, and 8260
- Equivalent to USP Phase G43

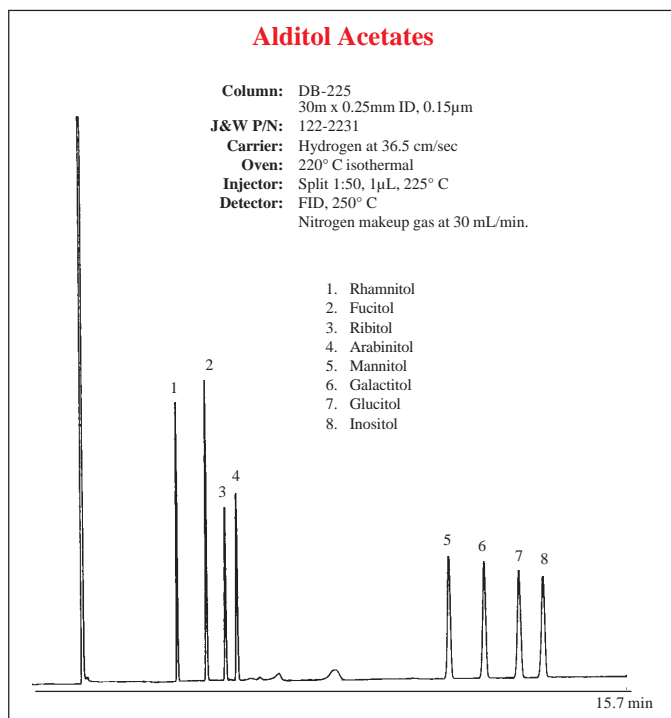
ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.18</b>	20m	1.00µm	-20 to 260	<b>121-1324</b>
<b>0.20</b>	25m	1.12µm	-20 to 260	<b>128-1324</b>
<b>0.25</b>	30m	1.40µm	-20 to 260	<b>122-1334</b>
	60m	1.40µm	-20 to 260	<b>122-1364</b>
<b>0.32</b>	30m	1.80µm	-20 to 260	<b>123-1334</b>
	60m	1.80µm	-20 to 260	<b>123-1364</b>
<b>0.45</b>	30m	2.55µm	-20 to 260	<b>124-1334*</b>
	75m	2.55µm	-20 to 260	<b>124-1374*</b>
<b>0.53</b>	30m	3.00µm	-20 to 260	<b>125-1334</b>
	60m	3.00µm	-20 to 260	<b>125-1364</b>
	75m	3.00µm	-20 to 260	<b>125-1374</b>

\*No special ferrules required for High Speed Megabore 0.45mm I.D.

## DB-1301

- (6%-Cyanopropyl-phenyl)-methylpolysiloxane
- Equivalent to USP Phase G43

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.18</b>	10m	0.40µm	280/300	<b>121-1313</b>
<b>0.25</b>	15m	0.25µm	280/300	<b>122-1312</b>
	15m	1.00µm	280/300	<b>122-1313</b>
	30m	0.25µm	280/300	<b>122-1332</b>
	30m	0.50µm	280/300	<b>122-1336</b>
	30m	1.00µm	280/300	<b>122-1333</b>
	60m	0.25µm	280/300	<b>122-1362</b>
	60m	1.00µm	280/300	<b>122-1363</b>
<b>0.32</b>	15m	0.25µm	280/300	<b>123-1312</b>
	15m	1.00µm	280/300	<b>123-1313</b>
	30m	0.25µm	280/300	<b>123-1332</b>
	30m	1.00µm	280/300	<b>123-1333</b>
	60m	0.25µm	280/300	<b>123-1362</b>
	60m	1.00µm	280/300	<b>123-1363</b>
<b>0.53</b>	15m	1.00µm	260/280	<b>125-1312</b>
	30m	1.00µm	260/280	<b>125-1332</b>
	30m	1.50µm	260/280	<b>125-1333</b>



## DB-225ms

- Equiv. to (50%-Cyanopropylphenyl)-methylpolysiloxane
- Mid / high polarity
- Excellent for separations of cis- and trans-fatty acid methyl esters (FAMES)
- Close equivalent to USP Phase G7

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.25</b>	15m	0.25µm	240	<b>122-2912</b>
	30m	0.25µm	240	<b>122-2932</b>
	60m	0.25µm	240	<b>122-2962</b>
<b>0.32</b>	30m	0.25µm	240	<b>123-2932</b>

## DB-1701

- (14%-Cyanopropyl-phenyl) methylpolysiloxane

ID(mm)	Length	Film	Iso/Prog	Cat. No.	
<b>0.10</b>	20m	0.10µm	280/300	<b>127-0722</b>	
	20m	0.40µm	280/300	<b>127-0723</b>	
<b>0.18</b>	10m	0.40µm	280/300	<b>121-0713</b>	
	20m	0.40µm	280/300	<b>121-0723</b>	
<b>0.20</b>	25m	0.20µm	280/300	<b>128-0722</b>	
	<b>0.25</b>	15m	0.15µm	280/300	<b>122-0711</b>
<b>0.25</b>	15m	0.25µm	280/300	<b>122-0712</b>	
	15m	1.00µm	280/300	<b>122-0713</b>	
	30m	0.15µm	280/300	<b>122-0731</b>	
	30m	0.25µm	280/300	<b>122-0732</b>	
	30m	1.00µm	280/300	<b>122-0733</b>	
	60m	0.15µm	280/300	<b>122-0761</b>	
	60m	0.25µm	280/300	<b>122-0762</b>	
	60m	0.50µm	280/300	<b>122-0766</b>	
	60m	1.00µm	280/300	<b>122-0763</b>	
	<b>0.32</b>	15m	0.15µm	280/300	<b>123-0711</b>
		15m	0.25µm	280/300	<b>123-0712</b>
		15m	1.00µm	280/300	<b>123-0713</b>
		30m	0.10µm	280/300	<b>123-0739</b>
		30m	0.15µm	280/300	<b>123-0731</b>
		30m	0.25µm	280/300	<b>123-0732</b>
		30m	1.00µm	280/300	<b>123-0733</b>
50m		1.00µm	280/300	<b>123-0753</b>	
60m		0.15µm	280/300	<b>123-0761</b>	
60m		0.25µm	280/300	<b>123-0762</b>	
<b>0.45</b>	60m	1.00µm	280/300	<b>123-0763</b>	
	<b>0.45</b>	30m	0.42µm	260/280	<b>124-0737*</b>
<b>0.53</b>	30m	0.85µm	260/280	<b>124-0732*</b>	
	15m	0.50µm	260/280	<b>125-0717</b>	
<b>0.53</b>	15m	1.00µm	260/280	<b>125-0712</b>	
	30m	0.10µm	260/280	<b>125-0739</b>	
	30m	0.25µm	260/280	<b>125-0731</b>	
	30m	0.50µm	260/280	<b>125-0737</b>	
	30m	1.00µm	260/280	<b>125-0732</b>	
	60m	1.50µm	260/280	<b>125-0763</b>	

\*No special ferrules required for High Speed Megabore 0.45mm I.D.

## DB-WAX

- Polyethylene glycol (PEG)
- Close equivalent to USP Phase G16
- High polarity
- 20° C lower temperature limit

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.05</b>	10m	0.05µm	250/260	<b>126-7012</b>
	10m	0.10µm	250/260	<b>126-7013</b>
<b>0.10</b>	10m	0.10µm	250/260	<b>127-7012</b>
	10m	0.20µm	250/260	<b>127-7013</b>
	20m	0.10µm	250/260	<b>127-7022</b>
	20m	0.20µm	250/260	<b>127-7023</b>
<b>0.18</b>	10m	0.18µm	250/260	<b>121-7012</b>
	10m	0.30µm	250/260	<b>121-7013</b>
	20m	0.18µm	250/260	<b>121-7022</b>
	20m	0.30µm	250/260	<b>121-7023</b>
	40m	0.30µm	250/260	<b>121-7043</b>

## DB-WAX Continued

ID(mm)	Length	Film	Iso/Prog	Cat. No.	
<b>0.20</b>	25m	0.20µm	250/260	<b>128-7022</b>	
	25m	0.20µm	250/260	<b>128-7032</b>	
	50m	0.20µm	250/260	<b>128-7052</b>	
	50m	0.40µm	240/250	<b>128-7053</b>	
	60m	0.20µm	250/260	<b>128-7062</b>	
<b>0.25</b>	15m	0.15µm	250/260	<b>122-7011</b>	
	15m	0.25µm	250/260	<b>122-7012</b>	
	15m	0.50µm	240/250	<b>122-7013</b>	
	30m	0.15µm	250/260	<b>122-7031</b>	
	30m	0.25µm	250/260	<b>122-7032</b>	
	30m	0.50µm	240/250	<b>122-7033</b>	
	60m	0.15µm	250/260	<b>122-7061</b>	
	60m	0.25µm	250/260	<b>122-7062</b>	
	60m	0.50µm	240/250	<b>122-7063</b>	
	<b>0.32</b>	15m	0.15µm	250/260	<b>123-7011</b>
15m		0.25µm	250/260	<b>123-7012</b>	
15m		0.50µm	240/250	<b>123-7013</b>	
30m		0.15µm	250/260	<b>123-7031</b>	
30m		0.25µm	250/260	<b>123-7032</b>	
30m		0.50µm	240/250	<b>123-7033</b>	
60m		0.25µm	250/260	<b>123-7062</b>	
60m		0.50µm	240/250	<b>123-7063</b>	
<b>0.45</b>		15m	0.85µm	230/240	<b>124-7012*</b>
		30m	0.85µm	230/240	<b>124-7032*</b>
	<b>0.53</b>	15m	0.50µm	230/240	<b>125-7017</b>
		15m	1.00µm	230/240	<b>125-7012</b>
30m		0.25µm	230/240	<b>125-7031</b>	
30m		0.50µm	230/240	<b>125-7037</b>	
<b>0.53</b>	30m	1.00µm	230/240	<b>125-7032</b>	
	60m	1.00µm	230/240	<b>125-7062</b>	

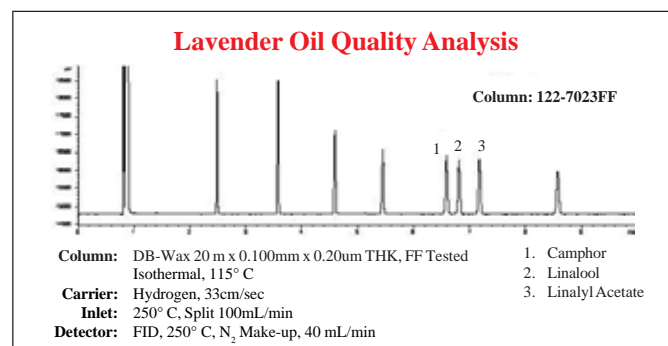
\*No special ferrules required for High Speed Megabore 0.45mm I.D.

## DB-WAX-FF

- New! Columns are specially tested to separate 3 key fragrance components

This column-to-column reproducibility of the DB-WAX-FF brings high speed analysis of flavor/fragrance components on a polar column from the realm of the theoretically possible and makes it practical. While the DB-WAX-FF can be used for analysis suitable for microbore wax columns, it is designed and manufactured specifically for fragrance/flavors analysis. This column was originated from the Lavender oil quality analysis requirements.

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.10</b>	20m	0.20µm	250/260	<b>127-7023FF</b>



# J & W GC Capillary Columns

## DB-WAXetr

- Polyethylene glycol (PEG)
- **E**xtended **T**emperature **R**ange
- Close equivalent to USP Phase G16

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.20</b>	25m	0.40µm	250/260	<b>128-7323</b>
<b>0.25</b>	15m	0.25µm	260/280	<b>122-7312</b>
	15m	0.50µm	250/260	<b>122-7313</b>
	30m	0.25µm	260/280	<b>122-7332</b>
	30m	0.50µm	250/260	<b>122-7333</b>
	60m	0.25µm	260/280	<b>122-7362</b>
	60m	0.50µm	250/260	<b>122-7363</b>
<b>0.32</b>	15m	0.25µm	260/280	<b>123-7312</b>
	15m	0.50µm	250/260	<b>123-7313</b>
	15m	1.00µm	250/260	<b>123-7314</b>
	30m	0.25µm	260/280	<b>123-7332</b>
	30m	0.50µm	250/260	<b>123-7333</b>
	30m	1.00µm	250/260	<b>123-7334</b>
	50m	1.00µm	250/260	<b>123-7354</b>
	60m	0.25µm	260/280	<b>123-7362</b>
	60m	0.50µm	250/260	<b>123-7363</b>
	60m	1.00µm	250/260	<b>123-7364</b>
<b>0.53</b>	15m	1.00µm	240/260	<b>125-7312</b>
	15m	2.00µm	230/250	<b>125-7314</b>
	30m	1.00µm	240/260	<b>125-7332</b>
	30m	1.50µm	230/240	<b>125-7333</b>
	30m	2.00µm	230/250	<b>125-7334</b>
	60m	1.00µm	240/260	<b>125-7362</b>
	60m	1.50µm	230/250	<b>125-7363</b>



## DB-FFAP

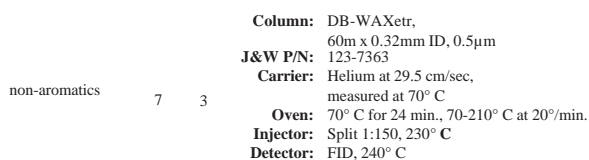
- Nitroterephthalic acid modified polyethylene glycol
- Designed for the analysis of volatile fatty acids and phenols
- Close equivalent to USP Phase G35

*It is not recommended to use water or methanol to rinse this column.*

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.20</b>	25m	0.30µm	40 to 250	<b>128-3222</b>
<b>0.25</b>	15m	0.25µm	40 to 250	<b>122-3212</b>
	30m	0.25µm	40 to 250	<b>122-3232</b>
	30m	0.50µm	40 to 250	<b>122-3233</b>
	60m	0.25µm	40 to 250	<b>122-3262</b>
	60m	0.25µm	40 to 250	<b>122-3263</b>
	<b>0.32</b>	15m	0.25µm	40 to 250
15m		1.00µm	40 to 250	<b>123-3214</b>
25m		0.50µm	40 to 250	<b>123-3223</b>
30m		0.25µm	40 to 250	<b>123-3232</b>
30m		0.50µm	40 to 250	<b>123-3233</b>
30m		1.00µm	40 to 250	<b>123-3234</b>
50m		0.50µm	40 to 250	<b>123-3253</b>
60m		0.25µm	40 to 250	<b>123-3262</b>
60m		0.50µm	40 to 250	<b>123-3263</b>
60m		1.00µm	40 to 250	<b>123-3264</b>
<b>0.45</b>	30m	0.85µm	40 to 250	<b>124-3232*</b>
<b>0.53</b>	10m	1.00µm	40 to 250	<b>125-32H2</b>
	15m	0.50µm	40 to 250	<b>125-3217</b>
	15m	1.00µm	40 to 250	<b>125-3212</b>
	30m	0.25µm	40 to 250	<b>125-3231</b>
	30m	0.50µm	40 to 250	<b>125-3237</b>
	30m	1.00µm	40 to 250	<b>125-3232</b>
	30m	1.50µm	40 to 250	<b>125-3233</b>
	60m	1.00µm	40 to 250	<b>125-3262</b>

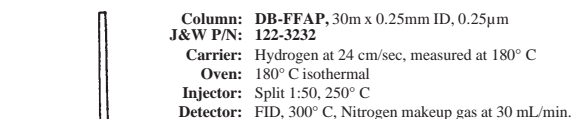
\*No special ferrules required for High Speed Megabore 0.45mm I.D.

### Impurities in Ethylbenzene – ASTM D5060

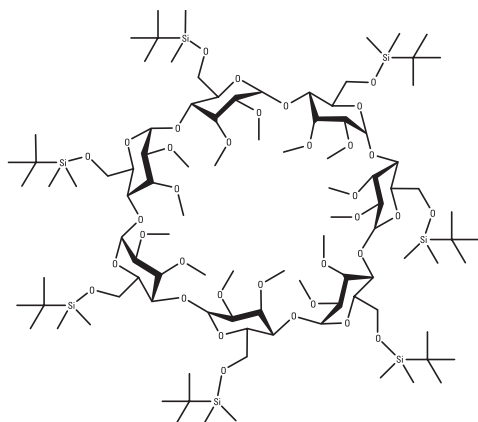


1. Benzene
2. Toluene
3. Ethylbenzene
4. *p*-Xylene
5. *m*-Xylene
6. *o*-Xylene
7. Undecane (IS)

### Aspirin and Ibuprofen in Methanol



1. Aspirin
2. Ibuprofen



30% Heptakis (2,3-di-O-methyl-6-O-t-butyl-dimethylsilyl)-b-cyclodextrin

## CycloSil-B

- Chiral separations without chiral specific derivatization
- 30% heptakis (2, 3-di-O-methyl-6-O-t-butyl dimethylsilyl)-b-cyclodextrin in DB-1701
- Ideal for many chiral  $\gamma$ -lactones and terpenes
- Not bonded or crosslinked
- Solvent rinsing is NOT recommended

ID(mm)	Length	Film	Iso/Prog	Cat. No.
0.25	30m	0.25 $\mu$ m	260/280	112-6632
0.32	30m	0.25 $\mu$ m	260/280	113-6632

## Cyclodex-B

- Chiral separations without chiral specific derivatization
- 10.5% Beta-Cyclodextrin in DB-1701
- Not bonded or crosslinked
- Solvent rinsing is NOT recommended

ID(mm)	Length	Film	Iso/Prog	Cat. No.
0.25	30m	0.25 $\mu$ m	230/250	112-2532
	60m	0.25 $\mu$ m	230/250	112-2562
0.32	30m	0.25 $\mu$ m	230/250	113-2532

## DB-1ht

- 100% Dimethylpolysiloxane
- Processed for extended temperature limit of 400° C
- High temperature, polyimide-coated, fused silica tubing

ID(mm)	Length	Film	Iso/Prog	Cat. No.
0.25	15m	0.10 $\mu$ m	-60 to 400	122-1111
	30m	0.10 $\mu$ m	-60 to 400	122-1131
0.32	15m	0.10 $\mu$ m	-60 to 400	123-1111
	30m	0.10 $\mu$ m	-60 to 400	123-1131

## DB-5ht

- (5%-Phenyl)-methylpolysiloxane
- Processed for extended temp. limit of 400° C
- High temperature, polyimide-coated, fused silica tubing

ID(mm)	Length	Film	Iso/Prog	Cat. No.
0.25	15m	0.10 $\mu$ m	-60 to 400	122-5711
	30m	0.10 $\mu$ m	-60 to 400	122-5731
0.32	15m	0.10 $\mu$ m	-60 to 400	123-5711
	30m	0.10 $\mu$ m	-60 to 400	123-5731

## DB-17ht

- (50%-Phenyl)-methylpolysiloxane
- Extended upper temperature limit of 365° C
- High temperature, polyimide-coated, fused silica tubing
- Improved resolution for triglycerides
- Ideal for confirmational analyses

ID(mm)	Length	Film	Iso/Prog	Cat. No.
0.25	15m	0.15 $\mu$ m	340/365	122-1811
	30m	0.15 $\mu$ m	340/365	122-1831
0.32	15m	0.15 $\mu$ m	340/365	123-1811
	30m	0.15 $\mu$ m	340/365	123-1831
	60m	0.15 $\mu$ m	340/365	123-1861

## DB-ALC1 and DB-ALC2

- Reliable blood alcohol analysis
- Optimized primary and confirmation pair for U.S. blood alcohol analysis

### DB-ALC1

ID(mm)	Length	Film	Iso/Prog	Cat. No.
0.32	30m	1.80 $\mu$ m	260/280	123-9134
0.53	30m	3.00 $\mu$ m	260/280	125-9134

### DB-ALC2

ID(mm)	Length	Film	Iso/Prog	Cat. No.
0.32	30m	1.20 $\mu$ m	260/280	123-9234
0.53	30m	2.00 $\mu$ m	260/280	125-9234

## DB-EVDX

- Specifically configured and tested for drugs of abuse confirmation
- DB-1 EVDX: 100% Dimethylpolysiloxane
- DB-5ms EVDX: (5%-Phenyl)-methylpolysiloxane
- DB-17 EVDX: (50%-Phenyl)-methylpolysiloxane

### DB-1-EVDX

ID(mm)	Length	Film	Iso/Prog	Cat. No.
0.20	25m	0.33 $\mu$ m	325/350	128-8122

### DB-5ms-EVDX

ID(mm)	Length	Film	Iso/Prog	Cat. No.
0.20	25m	0.33 $\mu$ m	325/350	128-8522

### DB-17-EVDX

ID(mm)	Length	Film	Iso/Prog	Cat. No.
0.20	25m	0.33 $\mu$ m	325/350	128-8722

# J & W GC Capillary Columns

## DB-608

- Specifically designed for the analysis of chlorinated pesticides and PCBs
- U.S. EPA Methods: 608, 508, 8080
- Excellent inertness and recoveries without pesticide breakdown

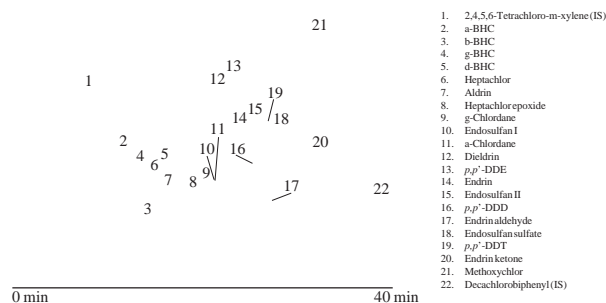
ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.25</b>	30m	0.25µm	280/300	<b>122-6832</b>
<b>0.32</b>	30m	0.50µm	280/300	<b>123-1730</b>
<b>0.45</b>	30m	0.42µm	260/280	<b>124-6837*</b>
	30m	0.70µm	260/280	<b>124-1730*</b>
<b>0.53</b>	15m	0.83µm	260/280	<b>125-1710</b>
	30m	0.50µm	260/280	<b>125-6837</b>
	30m	0.83µm	260/280	<b>125-1730</b>

\*No special ferrules required for High Speed Megabore 0.45mm I.D.



### Alditol Acetates

**Column:** DB-608, 30m x 0.53mm ID, 0.5µm  
**J&W P/N:** 125-6837  
**Carrier:** Helium at 30 cm/sec  
**Oven:** 150-275° C at 4°/min, 275° C for 30 min  
**Injector:** Megabore Direct, 250° C, 0.7µL of 100 pg/µL standard in isoctane  
**Detector:** ECD, 300° C, Nitrogen makeup gas at 30 mL/min.



## DB-HT Sim Dis

- 100% Dimethylpolysiloxane
- “Boiling Point” phase for high temperature simulated distillation
- Durable Stainless Steel tubing
- 430° C upper temperature limit
- Distillation range of C<sub>6</sub> to C<sub>110+</sub>
- Low bleed – even at 430° C!

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.53</b>	5m	0.15µm	400/430	<b>145-1001</b>

## DB-1701P

- (14%-Cyanopropylphenyl)-methylpolysiloxane
- Low / midpolarity
- Designed for the analysis of organochlorine pesticides
- ECD tested to assure minimal pesticide breakdown and low ECD bleed

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.25</b>	30m	0.25µm	280/300	<b>122-7732</b>
<b>0.32</b>	30m	0.25µm	280/300	<b>123-7732</b>
<b>0.53</b>	30m	1.00µm	260/280	<b>125-7732</b>

## DB-2887

- 100% Dimethylpolysiloxane
- Designed for simulated distillation ASTM Method D2887

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.53</b>	10m	3.00µm	-60 to 350	<b>125-2814</b>

## DB-Petro

- 100% Dimethylpolysiloxane
- Configured for the analysis of petroleum process products
- PONA, PIANO

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.20</b>	50m	0.50µm	325/350	<b>128-1056</b>
<b>0.25</b>	100m	0.50µm	325/350	<b>122-10A6</b>

## DB-Dioxin

- Engineered for the analysis of Polychlorinated Dibenzodioxins (PCDDs) and Dibenzofurans (PCDF)
- Resolves 2, 3, 7, 8-TCDD and 2, 3, 7, 8-TCDF from all other isomers in one run

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.25</b>	60m	0.15µm	250/270	<b>122-2461</b>
	60m	0.25µm	250/270	<b>122-2462</b>
<b>0.32</b>	60m	0.19µm	250/270	<b>123-2461</b>
	60m	0.32µm	250/270	<b>123-2462</b>

## DB-5.625

- Equiv. to a (5%-Phenyl)-methylpolysiloxane
- Nonpolar
- Specially processed to exhibit excellent inertness for EPA Semivolatiles Methods 625, 1625, 8270 and CLP protocols\*  
\*Pentachlorophenol, 2,4-Dinitrophenol, Carbazole, and N-Nitrosodiphenylamine used to test response factors.
- Surpasses EPA performance criteria for semivolatiles
- Inert for base, neutral and acidic compounds

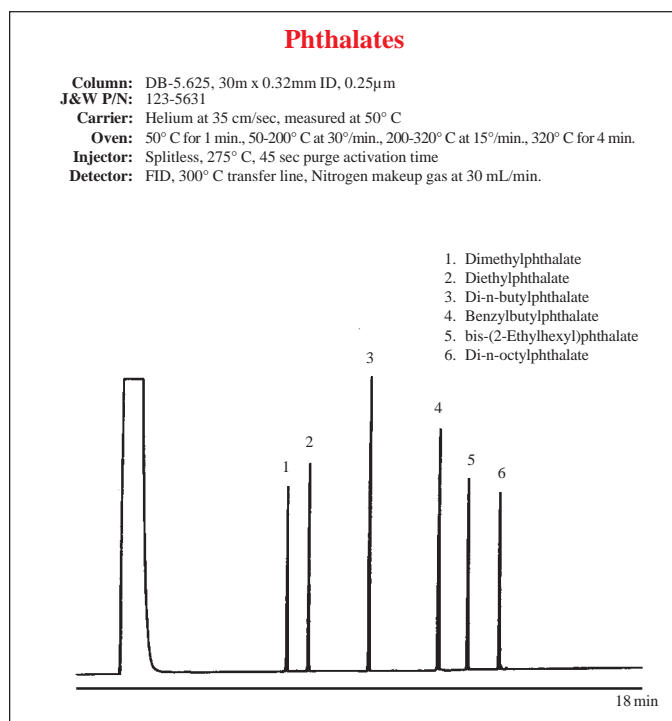
ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.25</b>	30m	0.25µm	325/350	<b>122-5631</b>
	30m	0.50µm	325/350	<b>122-5632</b>
	30m	1.00µm	325/350	<b>122-5633</b>
	60m	0.25µm	325/350	<b>122-5661</b>
<b>0.32</b>	30m	0.25µm	325/350	<b>123-5631</b>
	30m	0.50µm	325/350	<b>123-5632</b>
	30m	1.00µm	325/350	<b>123-5633</b>
<b>0.53</b>	30m	1.00µm	300/320	<b>125-5632</b>

## DB-VRX

- Low polarity
- Engineered for optimum resolution of volatiles analysis: U.S. EPA Methods 502.2 and 524.2
- No subambient cooling required to resolve the six "Gases"
- Fast run time:  
< 30 minutes for optimum sample throughput  
< 8 minutes with 0.18mm ID

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.18</b>	20m	1.00µm	-10 to 260	<b>121-1524</b>
	40m	1.00µm	-10 to 260	<b>121-1544</b>
<b>0.25</b>	30m	1.40µm	-10 to 260	<b>122-1534</b>
	60m	1.40µm	-10 to 260	<b>122-1564</b>
<b>0.32</b>	30m	1.80µm	-10 to 260	<b>123-1534</b>
	60m	1.80µm	-10 to 260	<b>123-1564</b>
<b>0.45</b>	30m	2.55µm	-10 to 260	<b>124-1534*</b>
	75m	2.55µm	-10 to 260	<b>124-1574*</b>

\*No special ferrules required for High Speed Megabore 0.45mm I.D.



## DB-MTBE

- Low polarity stationary phase
- Resolves MTBE from 2-methylpentane and 3-methylpentane
- Engineered for purge and trap injection without the need for cryofocusing

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.45</b>	30m	2.55µm	10 to 250	<b>124-0034*</b>
<b>0.53</b>	30m	3.00µm	10 to 250	<b>125-0034</b>

\*No special ferrules required for High Speed Megabore 0.45mm I.D.

## DB-502.2

- Available in 105 meter for volatiles analysis

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.25</b>	60m	1.40µm	260/280	<b>122-1464</b>
<b>0.32</b>	60m	1.80µm	260/280	<b>123-1464</b>
<b>0.45</b>	75m	2.55µm	260/280	<b>124-1474*</b>
	105m	2.55µm	260/280	<b>124-14A4*</b>
<b>0.53</b>	105m	3.00µm	260/280	<b>125-14A4</b>

\*No special ferrules required for High Speed Megabore 0.45mm I.D.

## DB-TPH

- Specifically designed for the analysis of total petroleum hydrocarbons (TPH)
- Three analyses in one injection: gas range organics, diesel range organics and motor oil

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.32</b>	30m	0.25µm	-10 to 320	<b>123-1632</b>
<b>0.45</b>	30m	1.00µm	-10 to 290	<b>124-1632*</b>

\*No special ferrules required for High Speed Megabore 0.45mm I.D.

# J & W GC Capillary Columns



## GS-Alumina®

- PLOT column for the analysis of light hydrocarbons
- Separates C1-C4 saturated and unsaturated hydrocarbons
- Best for resolving cyclopropane from propylene
- Preferred substitution for sodium sulfate deactivated Alumina because of its regenerative nature

**Note:** Alumina columns have a tendency to adsorb water and CO<sub>2</sub> which, over time, results in changes in retention time. We use an advanced, proprietary deactivation process which allows for rapid regeneration. Fully water saturated GS-Alumina columns regenerate in 7 hours or less at 200°C.

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.53</b>	30m	30.00µm	-60 to 200	<b>115-3532</b>
	50m	50.00µm	-60 to 200	<b>115-3552</b>

## GS-Alumina/KCl

- Least “polar” Alumina phase
- Column choice for light hydrocarbon analysis
- Good resolution of propadiene and butadiene from ethylene and propylene streams

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.53</b>	30m	N/A	-60 to 200	<b>115-3332</b>
	50m	N/A	-60 to 200	<b>115-3352</b>

## GS-CarbonPLOT

- High stability, carbon layer stationary phase
- Unique selectivity for inorganic and organic gases
- Extended temperature limit of 360° C

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.32</b>	15m	1.50µm	350/360	<b>113-3112</b>
	30m	1.50µm	350/360	<b>113-3132</b>
	30m	3.00µm	350/360	<b>113-3133</b>
	60m	1.50µm	350/360	<b>113-3162</b>
<b>0.53</b>	15m	3.00µm	350/360	<b>115-3113</b>
	30m	3.00µm	350/360	<b>115-3133</b>

## GS-GasPro

- Unique bonded PLOT column technology
- Suitable for light hydrocarbons and sulfur gases
- Retention stability not affected by water
- Separates CO and CO<sub>2</sub> on a single column
- Ideal PLOT column for GC/MS – no particles

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.32</b>	5m	N/A	260/300	<b>113-4302</b>
	15m	N/A	260/300	<b>113-4312</b>
	30m	N/A	260/300	<b>113-4332</b>
	60m	N/A	260/300	<b>113-4362</b>

## GS-Q®

- Porous divinylbenzene homopolymer
- A PLOT column with polarity between Porapak-Q and Porapak-N
- Separates ethane, ethylene and ethyne (acetylene)
- Minimal conditioning time required – 1 hour

**Note:** GS-Q has been proven useful for separations of various gases including freons and sulfides (except for SO<sub>2</sub>). Although GS-Q is not suitable for quantitating water or alcohols, aqueous injections will not harm the column.

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.32</b>	25m	N/A	-60 to 250	<b>113-3422</b>
	30m	N/A	-60 to 250	<b>113-3432</b>
<b>0.53</b>	15m	N/A	-60 to 250	<b>115-3412</b>
	25m	N/A	-60 to 250	<b>115-3422</b>
	30m	N/A	-60 to 250	<b>115-3432</b>

## DB-ProSteel™ Stainless Steel GC Columns

- Excellent inertness
- Virtually unbreakable

Our easy to handle DB-ProSteel metal columns are deactivated with a new formula (this is not glass lined steel) to provide inertness which truly rivals fused silica. DB-ProSteel metal columns can be custom wound upon request for small GC ovens. Several of our most popular bonded phases are available in metal.

DB-ProSteel GC columns have the same outer diameter as standard Megabore (0.53mm ID), so no special ferrules are required.

### DB-PS1

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.53</b>	15m	0.15µm	340/360	<b>145-1011</b>
	15m	0.50µm	300/320	<b>145-1017</b>
	15m	1.50µm	300/320	<b>145-1012</b>
	30m	0.15µm	300/320	<b>145-1031</b>
	30m	0.50µm	300/320	<b>145-1037</b>
	30m	1.50µm	300/320	<b>145-1032</b>
	30m	3.00µm	260/280	<b>145-1034</b>
	30m	5.00µm	260/280	<b>145-1035</b>

### DB-PS624

<b>0.53</b>	30m	3.00µm	-20 to 260	<b>145-1334</b>
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### DB-PS2887

<b>0.53</b>	10m	3.00µm	-60 to 350	<b>145-2814</b>
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### DB-PSWAX

<b>0.53</b>	30m	1.00µm	230/240	<b>145-7032</b>
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## OV-351

- Nitroterephthalic acid modified polyethylene glycol
- Equivalent to USP Phase G35
- Not Bonded or Crosslinked
- Solvent Rinsing is NOT recommended

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.32</b>	30m	0.25µm	220/240	<b>113-5132</b>

## Carbowax 20M

- Polyethylene glycol, MW 20,000
- Equivalent to USP Phase G16
- Not bonded or crosslinked
- Solvent rinsing is NOT recommended

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.25</b>	30m	0.25µm	220/240	<b>112-2032</b>
	60m	0.25µm	220/240	<b>112-2062</b>
<b>0.32</b>	30m	0.25µm	220/240	<b>113-2032</b>
	60m	0.25µm	220/240	<b>113-2062</b>

## CAM

- Base deactivated polyethylene glycol
- Specifically designed for amines analysis
- Excellent peak shape for primary amines

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.25</b>	15m	0.25µm	220/240	<b>112-2112</b>
	30m	0.25µm	220/240	<b>112-2132</b>
	30m	0.50µm	220/240	<b>112-2133</b>
	60m	0.25µm	220/240	<b>112-2162</b>
<b>0.32</b>	30m	0.25µm	220/240	<b>113-2132</b>
	30m	0.50µm	220/240	<b>113-2133</b>
<b>0.53</b>	30m	1.00µm	200/220	<b>115-2132</b>
	60m	1.00µm	200/220	<b>115-2162</b>

## DX-1, DX-3 and DX-4

- Non-Bonded Phases
- DX-1: (90% Dimethylpolysiloxane) (10% Polyethylene Glycol)
- DX-3: (50% Dimethylpolysiloxane) (50% Polyethylene Glycol)
- DX-4: (15% Dimethylpolysiloxane) (85% Polyethylene Glycol)

### DX-1

ID(mm)	Length	Film	Iso/Prog	Cat. No.
<b>0.25</b>	15m	0.25µm	250/270	<b>122-6112</b>
	30m	1.00µm	250/270	<b>122-6133</b>
<b>0.32</b>	30m	1.00µm	250/270	<b>123-6133</b>

### DX-3

<b>0.25</b>	15m	0.25µm	250/270	<b>122-6312</b>
	30m	0.25µm	250/270	<b>122-6332</b>
<b>0.32</b>	30m	0.25µm	250/270	<b>123-6332</b>

### DX-4

<b>0.25</b>	15m	0.25µm	250/270	<b>122-6412</b>
	30m	0.25µm	250/270	<b>122-6432</b>
	60m	0.25µm	250/270	<b>122-6462</b>
<b>0.32</b>	15m	0.25µm	250/270	<b>123-6412</b>
	30m	0.25µm	250/270	<b>123-6432</b>
	60m	0.25µm	250/270	<b>123-6462</b>

