

Heliflex AT<sup>®</sup>+

&

EconoCap EC<sup>®</sup>+

GC Columns  
CATALOG

2021

艾驰明科技（江苏）有限公司  
（中国区总代理）

 Hming Technologies

## 毛细管柱手册

- Alltech® Heliflex®—高性能，最广泛的阶段选择
- Alltech® Econo-Cap™—性价比最高，最通用

Grace提供两种毛细管柱，以满足各种应用和预算；Alltech® Heliflex®和Alltech® Econo-Cap™。Heliflex®色谱柱是Grace高级系列，经过单独测试的毛细管色谱柱。Econo-Cap™色谱柱经过批量测试，可显著降低价格而不会降低质量。Heliflex®和Econo-Cap™系列均在相同条件下使用相同的高质量聚酰亚胺涂层熔融石英和固定相制造。此外，每个都安装在坚固的柱架上。

无论您选择哪种毛细管，每个由LUMI制造的毛细管柱都能保证色谱柱的性能。

### Heliflex AT®- Capillary Columns

#### 高性能单独测试色谱柱

- 可选择5'或7'英寸的柱架
- 最完整的固定相
- 可定做色谱柱可用于您的特定应用

Heliflex®毛细管色谱柱由高质量的聚酰亚胺涂层合成熔融石英制成。它们安装在坚固耐磨的柱架上。每个Heliflex®色谱柱都经过单独测试，以确保色谱柱性能，并附带测试色谱图，说明书，毛细管端盖和陶瓷色谱柱切割器。

注意：不包括柱螺母和密封垫圈。如果我们的标准产品中没有您需要的色谱柱，请根据您的具体要求订购定制的Heliflex®色谱柱。

### Econo-Cap EC®- Capillary Columns

- 毛细管柱的最佳性价比
- 批量测试以大幅降低价格
- 适用于激进的应用
- 适用于常用固定相

我们采用了我们最受欢迎的毛细管柱，并完善了制造程序，确保了可重复性。这使我们可以批量测试这些列而不是单独测试，同时仍然提供保证。批量测试显著降低了生产成本，而且没有牺牲质量。

每个Econo-Cap™毛细管色谱柱都附带批量测试结果的副本，说明手册和毛细管端盖。如果您对Econo-Cap™毛细管色谱柱的质量不满意，将免费更换。

注意：不包括柱螺母和密封垫圈。



Available Heliflex AT®- Phases	
Phase	Page
Heliflex AT®-1ms+	3
Heliflex AT®-1ht+	3
Heliflex AT®-1+	4
Heliflex AT®-5ms+	5
Heliflex AT®-5+	5
Heliflex AT®-20+	6
Heliflex AT®-50+	6
Heliflex AT®-1301+	6
Heliflex AT®-35+	7
Heliflex AT®-35ms+	7
Heliflex AT®-210+	8
Heliflex AT®-1701+	8
Heliflex AT®-WAX+	9
Heliflex AT®-WAXms+	9
Heliflex AT®-AquaWax+	10
Heliflex AT®-AquaWax DA+	10
Heliflex AT®-1000+	11
Heliflex AT®-502.2+	11
Heliflex AT®-624+	12
Heliflex AT®-225+	12
Heliflex AT®-SILAR-90+	13
Heliflex AT®-SILAR-100+	13
Heliflex AT®-3710+	14
Heliflex AT®-Petro+	14
Heliflex AT®-Sulfur+	14

In this catalog only the most common stationary phases and GC column types are reported. Contact us for other items and custom products.

Available Econo-Cap EC®- Phases	
Phase	Page
Econo-Cap EC®-1+	4
Econo-Cap EC®-5+	6
Econo-Cap EC®-WAX+	10
Econo-Cap EC®-1000+	11

#### 技术提示温度限制

我们的GC毛细管色谱柱具有额定温度。在某些情况下，我们列出了两个最高工作温度，较低的一个用于等温条件，而较高的一个用于程序升温。

Contact us for more info

## 气相色谱法

### 毛细管柱交叉参考

使用下表将制造商的固定相和USP方法名称交叉引用到Heliflex和Econo-Cap等效色谱柱。不同制造商的色谱柱之间可能会出现选择性的轻微变化。

### Standard Phase Cross Reference

Standard Phase Cross Reference			
Composition	Heliflex, Econo-Cap Brand	USP Designation	Similar Phases
100% Dimethylpolysiloxane	AT <sup>®</sup> -1ms+	G1, G2, G38	DB-1ms, HP-1ms, Rtx <sup>®</sup> -1ms, MEGA-1 MS, CP-Sil 5CB low-bleed/ms
100% Dimethylpolysiloxane	AT <sup>®</sup> -1ht+, AT <sup>®</sup> -1+ EC <sup>®</sup> -1+	G1, G2, G38	007-1, CP-Sil 5CB, DB-1, DB-1ht, HP-1, HP-101, MEGA-1, MEGA-1 HT OV <sup>™</sup> -1, RSL-150, RSL-160, Rtx <sup>®</sup> -1, SE-30 <sup>™</sup> , SPB <sup>™</sup> -1, SPB <sup>™</sup> -Sulfur, ULTRA-1, SP-2100, BP-1, DC-200, PE-1, ZB-1
5% Phenyl equivalent Polysilphenylene-Siloxane	AT <sup>®</sup> -5ms+		DB-5ms, Rtx <sup>®</sup> -5 Sil ms, BPX <sup>™</sup> -5, 007-5ms, MEGA-5 MS, MEGA-5 MS Xil, HP-5ms
5% Phenyl - 95% Methylpolysiloxane	AT <sup>®</sup> -5+ EC <sup>®</sup> -5+	G27, G36	007-2, CP-Sil 8CB, DB-5, DB-5.625, DB-5ht, HP-5, MEGA-5, HP-5ms, OV <sup>™</sup> -5, PTE-5, PTE-5QTM, PAS-5, RSL-200, Rtx <sup>®</sup> -5, Rtx <sup>®</sup> -5ms, SAC-5, SE <sup>™</sup> -54, SPB <sup>™</sup> -5, ULTRA-2, XTI-5, SE <sup>™</sup> -52, BP-5, PE-2, ZB-5
20% Phenyl - 80% Methylpolysiloxane	AT <sup>®</sup> -20+ EC <sup>®</sup> -20+	G28, G32	007-7, Rtx <sup>®</sup> -20, SPB <sup>™</sup> -20, VOCOL <sup>™</sup> , MEGA-20, PE-7
35 Phenyl - 65% Methylpolysiloxane	AT <sup>®</sup> -35ms+ AT <sup>®</sup> -35+	G42	DB-35ms, Rtx <sup>®</sup> -35, SPB <sup>™</sup> -35, SUP-HERB <sup>™</sup> , MDN-35, BPX <sup>™</sup> -35, MEGA-35, 007-11, DB-35, DB-35ms, HP-35, RSL-300, Rtx <sup>®</sup> -35, SPB <sup>™</sup> -35, SPB <sup>™</sup> -608, OV <sup>™</sup> -11, PE-35, SUP-HERB <sup>™</sup> , MEGA-35 MS
50 Phenyl - 50% Methylpolysiloxane	AT <sup>®</sup> -50+	G3	DB-17ms, H5-50+, Rtx <sup>®</sup> -50, SP-2250, SPB <sup>™</sup> -50, SPB <sup>™</sup> -17, BPX <sup>™</sup> -50, Rtx <sup>®</sup> -65TG, BPX <sup>™</sup> -50, CP-TAB-CB, MEGA-17, MEGA-17 MS, MEGA-17 HT 007-17, DB-17, DB-17ht, HP-17, HP-50+, Rtx <sup>®</sup> -50, SP-50, SP-2250, SPB <sup>™</sup> -50, CP-Sil 24CB, PE-17, ZB-50
6% Cyanopropylphenyl - 94% Methylpolysiloxane	AT <sup>®</sup> -624+ AT <sup>®</sup> -1301+	G43	007-1301, DB-624, DB-1301, HP-1301, HP-624, MEGA-624, MEGA-1301, Rtx <sup>®</sup> -1301, Rtx <sup>®</sup> -624, SPB <sup>™</sup> -1301, SPB <sup>™</sup> -624, 007-624, ZB-624
14% Cyanopropylphenyl - 86% Methylpolysiloxane	AT <sup>®</sup> -1701+		007-1701, CP-Sil 19CB, DB-1701, HP-1701, OV <sup>™</sup> -1701, MEGA-1701, PAS-1701, Rtx <sup>®</sup> -1701, SPB <sup>™</sup> -1701, BP-10, ZB-1701
Trifluoropropyl - Methylpolysiloxane	AT <sup>®</sup> -210+	G6	DB-210, RSL-400, Rtx <sup>®</sup> -200, OV <sup>™</sup> -202, OV <sup>™</sup> -210, OV <sup>™</sup> -215, MEGA-200, QF-1, SP-2401
50% Cyanopropylphenyl - 50% Methylpolysiloxane	AT <sup>®</sup> -225+	G7	007-225, CP-Sil 43CB, DB-225, HP-225, OV <sup>™</sup> -225, RSL-500, Rtx <sup>®</sup> -225, MEGA-225, BP-225, PE-225
Poly 90% biscyanopropyl - 10% Cyanopropylphenyl siloxane	AT <sup>®</sup> -SILAR-90+	G8	DB-23, CP-Sil 84, Rtx <sup>®</sup> -2330, SP-2330
Polybiscyanopropylsiloxane	AT <sup>®</sup> -SILAR-100+	G5	CP-Sil 88, Rtx <sup>®</sup> -2330, MEGA-10, SP-2340
Polyethyleneglycol	AT <sup>®</sup> -WAXms+ AT <sup>®</sup> -WAX+ AT <sup>®</sup> -AquaWax+ EC <sup>®</sup> -WAX+	G14, G15 G16, G20, G39	DB-WAX, Rtx <sup>®</sup> -WAX, Supelcowax <sup>™</sup> -10, MEGA-WAX, MEGA-WAX MS, MEGA-WAX Plus, 007-CW, Carbowax <sup>®</sup> 20M, CP-Wax 52CB, DB-WAXetr, DB-WAX, Rtx <sup>®</sup> -WAX, HP-20M, HP-Wax, Innowax <sup>™</sup> , Omegawax <sup>™</sup> , Stabilwax <sup>®</sup> , Supelcowax <sup>®</sup> -10, Superox <sup>®</sup> II, BP-20, ZB-WAX
Polyethyleneglycol Acid Modified	AT <sup>®</sup> -1000+ EC <sup>®</sup> -1000+ AT <sup>®</sup> -AquaWax DA+	G25, G35	007-FFAP, CP-Wax 58CB, DB <sup>™</sup> -FFAP, HP <sup>™</sup> -FFAP, Nukol <sup>™</sup> , MEGA-FFAP EXT MEGA-ACID (FFAP), OV <sup>™</sup> -351, SP-1000, Stabilwax <sup>®</sup> -DA, Superox <sup>®</sup> -FA, BP-21
Polyethyleneglycol Base Modified	AT <sup>®</sup> -CAM+		Stabilwax <sup>®</sup> -DB, CAM, Carbowax <sup>®</sup> Amine, MEGA-WAX BA, CP Wax 51
PONA Analysis	AT <sup>®</sup> -Petro+		007-1-100-0.5F, CP-Sil PONA CB, DB-Petro100, Petrocol <sup>™</sup> DH, PONA, MEGA-1 PONA, Tbx-1PONA, HP-PONA

### Specialty Columns Cross Reference

Specialty Phases Cross Reference		
EPA Method 502.2	AT <sup>®</sup> -502.2+	007-624, 007-502, DB-502.2, DB-VRX, HP-624, HP-VOC, MST-502.2, MXT-624, MXT-Volatiles, OV <sup>™</sup> -624, Rtx <sup>®</sup> -502.2, Rtx <sup>®</sup> -624, Rtx <sup>™</sup> -Volatiles, VOCOL <sup>™</sup>
Sulfur Analysis	AT <sup>®</sup> -Sulfur+	SPB <sup>™</sup> -1 Sulfur

In this catalog only the most common stationary phases and GC column types are reported. Contact us for other items and custom products.

## Heliflex AT®-1ms+

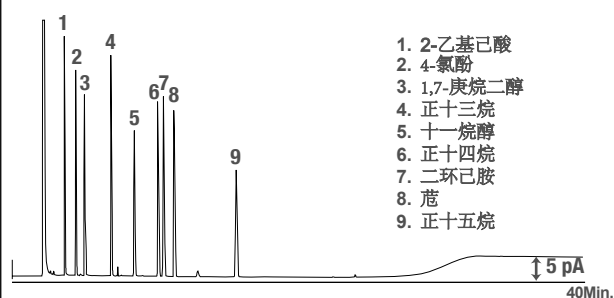
- 保证低流失特性
- 专为质谱分析而设计
- 高度惰性
- 类似于DB-1ms, HP-1ms, Rtx®-1ms, CP-Sil 5CB低流失/MS, MDN-1

Heliflex AT®-1ms+ 是一系列高性能低流失非极性色谱柱，专门设计用于质谱仪。它们是制药，环境，石化，食品和香料分析或任何需要100%二甲基聚硅氧烷型极性毛细管柱的GC/MS分析的理想选择。

### Heliflex AT®-1ms+ Specifications

<b>Phase:</b>	100% Dimethylpolysiloxane
<b>Polarity:</b>	Non-polar
<b>Max. Temp.:</b>	330/350°C*
<b>USP Designation:</b>	G1, G2, G38
<b>Ideal For:</b>	环境、多环芳烃、CLP杀虫剂、类固醇和药物的质量规范分析

### Low Bleed Profile



1. 2-乙基己酸
2. 4-氯酚
3. 1,7-庚烷二醇
4. 正十三烷
5. 十一烷醇
6. 正十四烷
7. 二环己胺
8. 萘
9. 正十五烷

**Column:** Heliflex AT®-1ms+, 30m x 0.25mm x 0.25µm  
Part No. **8635244** (Old Ref. 15897)

**Temp:** 135°C (20min hold) to 320°C (10min hold) at 20°C/min

**Carrier Gas:** Helium at 0.65mL/min (23.1cm/sec)

**Detector:** FID

### Heliflex AT®-1ms+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.-max.	Old Reference	Part No.
30m	0.25mm	0.10µm	-60-340/350°C	15884	<b>8635243</b>
	0.25mm	0.25µm	-60-330/350°C	15897	<b>8635244</b>
	0.32mm	0.25µm	-60-330/350°C	15938	<b>8635273</b>
60m	0.25mm	0.25µm	-60-330/350°C	15941	<b>8635354</b>
	0.32mm	0.25µm	-60-330/350°C	15944	<b>8635377</b>

## Heliflex AT®-1ht+

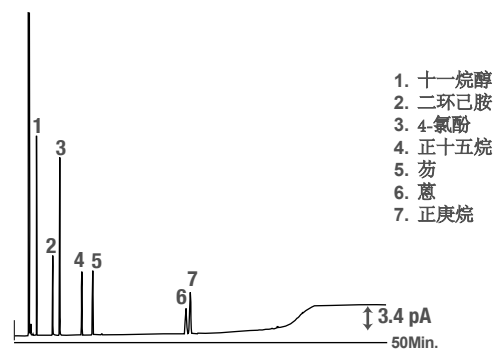
使用高温/低流失色谱柱缩短分析时间

- 更快的高沸点化合物分析
- 在较低浓度下更好地检测峰
- 在380°C下进行单独测试
- 类似于007-1, CP-Sil 5CB, DB-1, DB-1ht, HP-1, HP-101, OVTM-1, RSL-150, RSL-160, Rtx®-1, SE-30™, SPBTM-1, SPBTM-Sulfur, ULTRA-1, SP-2100, BP-1, DC-200, PE-1, ZB-1

### Heliflex AT®-1ht+ Specifications

<b>Phase:</b>	100% Dimethylpolysiloxane
<b>Polarity:</b>	Non-polar
<b>Max. Temp.:</b>	380/400°C*
<b>USP Designation:</b>	G1, G2, G38
<b>Ideal For:</b>	高沸点化合物蜡、原油和三甘醇

### Bleed Profile



1. 十一烷醇
2. 二环己胺
3. 4-氯酚
4. 正十五烷
5. 萘
6. 萘
7. 正庚烷

**Column:** Heliflex AT®-1ht+, 30m x 0.25mm x 0.10µm  
Part No. **8635245** (Old Ref. 16368)

**Column Temp:** 125°C (25min hold) to 380°C at 20°C/min

**Carrier Gas:** Helium at 26.3cm/sec

**Detector:** FID at 390°C

### Heliflex AT®-1ht+ GC Capillary Columns

Length	i.d.	Film	Temp. Limits* min.-max.	Old Reference	Part No.
15m	0.25mm	0.1µm	-60-400°C	16367	<b>8635143</b>
30m	0.25mm	0.1µm	-60-400°C	16368	<b>8635245</b>
60m	0.25mm	0.1µm	-60-400°C	16369	<b>8635355</b>

\*: Maximum Temperature range may change depending on stationary phase film thickness.  
In this catalog are reported only the most common GC columns dimensions and part numbers.  
Contact us for other items and custom products.

Custom Capillary Coiling Available  
 Custom Capillary Column Dimensions Available  
 Custom Capillary Column with Integral Guard Available  
 FAST-GC narrow-bore Column Dimensions Available

Contact us for more info

## Heliflex AT<sup>®</sup>-1+

优秀的通用色谱柱

类似于DB-1, Rtx-1, SPB<sup>™</sup>-1, SPB<sup>™</sup>-Sulfur, SP-2100, HP-1, HP-101, ULTRA-1, BP-1, CP-Sil 5CB, 007-1, OV-1, SE<sup>™</sup>-30, DC-200, RSL-150, RSL-160, PE-1, ZB-1

Heliflex AT <sup>®</sup> -1+ Specifications	
Phase:	100% 聚甲基硅氧烷
Polarity:	非极性色谱柱
USP Designation:	G1, G2, G38
Ideal For:	通用毛细管柱

### Heliflex AT<sup>®</sup>-1+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.	
10m	0.25mm	0.20µm	-60–330/350°C	932510	<b>8635081</b>	
	0.32mm	0.10µm	-60–330/350°C	16868	<b>8635090</b>	
	0.32mm	0.25µm	-60–330/350°C	13755	<b>8635089</b>	
	0.32mm	0.30µm	-60–330/350°C	933210	<b>8635091</b>	
	0.53mm	0.25µm	-60–330/350°C	16840	<b>8635106</b>	
	0.53mm	1.20µm	-60–320/330°C	935110	<b>8635105</b>	
	0.53mm	2.65µm	-60–300°C	16849	<b>8635104</b>	
	0.53mm	5.00µm	-60–300°C	16842	<b>8635103</b>	
	15m	0.25mm	0.10µm	-60–330/350°C	13649	<b>8635121</b>
		0.25mm	0.25µm	-60–330/350°C	13753	<b>8635123</b>
0.25mm		1.00µm	-60–320/330°C	13653	<b>8635122</b>	
0.32mm		0.10µm	-60–330/350°C	13673	<b>8635147</b>	
0.32mm		0.25µm	-60–330/350°C	13757	<b>8635150</b>	
0.32mm		1.00µm	-60–320/330°C	13698	<b>8635148</b>	
0.32mm		5.00µm	-60–300°C	16836	<b>8635151</b>	
0.53mm		0.15µm	-60–330/350°C	13945	<b>8635187</b>	
0.53mm		1.20µm	-60–320/330°C	935115	<b>8635188</b>	
0.53mm		1.50µm	-60–320/330°C	13905	<b>8635181</b>	
0.53mm		3.00µm	-60–300°C	13893	<b>8635184</b>	
0.53mm		5.00µm	-60–300°C	16851	<b>8635183</b>	
25m		0.25mm	0.20µm	-60–330/350°C	932525	<b>5123485</b>
		0.32mm	0.30µm	-60–330/350°C	933225	<b>8635901</b>
30m	0.25mm	0.10µm	-60–330/350°C	13663	<b>8635233</b>	
	0.25mm	0.25µm	-60–330/350°C	13638	<b>8635235</b>	
	0.25mm	1.00µm	-60–320/330°C	13639	<b>8635236</b>	
	0.32mm	0.25µm	-60–330/350°C	13640	<b>8635254</b>	
	0.32mm	0.30µm	-60–330/350°C	933230	<b>8635257</b>	
	0.32mm	1.00µm	-60–320/330°C	13641	<b>8635255</b>	
	0.32mm	3.00µm	-60–300°C	13702	<b>8635256</b>	
	0.32mm	5.00µm	-60–300°C	16838	<b>8635253</b>	
	0.53mm	0.50µm	-60–330/350°C	14038	<b>8635302</b>	
	0.53mm	1.00µm	-60–320/330°C	13515	<b>8635304</b>	
	0.53mm	1.20µm	-60–320/330°C	935130	<b>8635307</b>	
	0.53mm	1.50µm	-60–320/330°C	13908	<b>8635305</b>	
	30m	0.53mm	2.65µm	-60–300°C	16876	<b>8635303</b>
		0.53mm	3.00µm	-60–300°C	13897	<b>8635301</b>
		0.53mm	5.00µm	-60–300°C	16843	<b>8635306</b>
	50m	0.25mm	0.20µm	-60–330/350°C	932550	<b>8635322</b>
60m	0.25mm	0.25µm	-60–330/350°C	13666	<b>8635334</b>	
	0.25mm	1.00µm	-60–320/330°C	13667	<b>8635336</b>	
	0.32mm	0.10µm	-60–330/350°C	13700	<b>8635363</b>	
	0.32mm	1.00µm	-60–320/330°C	13669	<b>8635362</b>	
	0.32mm	3.00µm	-60–300°C	13703	<b>8635364</b>	
	0.32mm	5.00µm	-60–300°C	13704	<b>8635365</b>	
	0.53mm	3.00µm	-60–300°C	13902	<b>8635390</b>	
	0.53mm	5.00µm	-60–300°C	13810	<b>8635392</b>	
	100m	0.25mm	0.25µm	-60–330/350°C	13972	<b>8635902</b>

## Econo-Cap EC<sup>®</sup>-1+

• 批量测试可大幅降低价格

### Econo-Cap EC<sup>®</sup>-1+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	-60–330/350°C	19652	<b>8635041</b>
	0.32mm	0.25µm	-60–330/350°C	19651	<b>8635047</b>
	0.32mm	1.00µm	-60–320/330°C	19660	<b>8635048</b>
	0.53mm	1.20µm	-60–320/330°C	19656	<b>8635057</b>

best value

### Econo-Cap EC<sup>®</sup>-1+ Capillary Columns, Six Pack

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	-60–330/350°C	196526	<b>5122228</b>
30m	0.32mm	0.25µm	-60–330/350°C	196516	<b>8635903</b>
30m	0.53mm	1.20µm	-60–320/330°C	196566	<b>8635904</b>

\*: Maximum Temperature range may change depending on stationary phase film thickness.  
In this catalog are reported only the most common GC columns dimensions and part numbers.  
Contact us for other items and custom products.

## Contact us for more info

Custom Capillary Coiling **Available**  
 Custom Capillary Column Dimensions **Available**  
 Custom Capillary Column with Integral Guard **Available**  
 FAST-GC narrow-bore Column Dimensions **Available**

## Heliflex AT<sup>®</sup>-5ms+

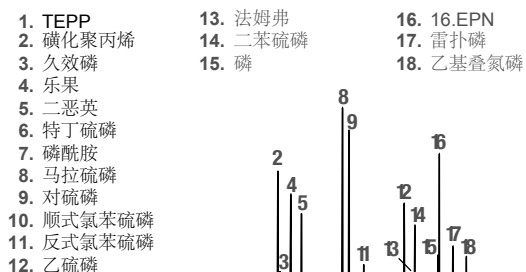
- 与DB-5ms类似, Rtx<sup>®</sup>-5 Sil ms, HP-5TA, BPX<sup>™</sup>-5, 007-5ms

AT<sup>™</sup> -5ms 毛细管非常适用于环境, 制药和石化分析, 或任何需要5%苯基型极性毛细管柱的GC/MS 分析。

### Heliflex AT<sup>®</sup>-5ms+ Specifications

Phase:	5% 苯基聚甲基硅氧烷
Polarity:	弱极性
USP Designation:	G27, G36
Ideal For:	弱极性通用色谱柱

### Organophosphorus Pesticides



**Column:** Heliflex AT<sup>®</sup>-5ms+, 30m x 0.25mm x 0.25µm  
Part No. **8635225** (Old Ref. 15807)  
**Temp:** 120°C (3min hold) to 285°C at 5°C/min (4min hold)  
**Carrier Gas:** Helium, 26cm/sec  
**Detector:** MSD

### Heliflex AT<sup>®</sup>-5ms+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.-max.	Old Reference	Part No.
15m	0.25mm	0.25µm	-60-330/350°C	15801	<b>8635142</b>
30m	0.25mm	0.10µm	-60-330/350°C	15806	<b>8635224</b>
	0.25mm	0.25µm	-60-330/350°C	15807	<b>8635225</b>
	0.25mm	0.50µm	-60-330/350°C	15808	<b>8635226</b>
	0.25mm	1.00µm	-60-320/330°C	15809	<b>8635227</b>
	0.32mm	0.25µm	-60-330/350°C	15894	<b>8635270</b>
60m	0.32mm	1.00µm	-60-320/330°C	15895	<b>8635271</b>
	0.25mm	0.10µm	-60-330/350°C	15879	<b>8635351</b>
	0.25mm	0.25µm	-60-330/350°C	15891	<b>8635353</b>
	0.25mm	1.00µm	-60-320/330°C	15892	<b>8635352</b>
	0.32mm	0.25µm	-60-330/350°C	15896	<b>8635379</b>

\*: Maximum Temperature range may change depending on stationary phase film thickness.  
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## Heliflex AT<sup>®</sup>-5+

- 优秀的通用色谱柱
- 类似 DB-5, Rtx<sup>®</sup>-5, SPB<sup>™</sup>-5, HP-5, ULTRA-2, B P-5, CP-Sil 8CB, 007-2, OV<sup>™</sup>-5, SE<sup>™</sup>-52, SE<sup>™</sup>-54, RS L-200, ZB-5

### Heliflex AT<sup>®</sup>-5+ Specifications

Phase:	5% 苯基-95% 甲基聚硅氧烷
Polarity:	弱极性
Max. Temp.:	330/350°C *
USP Designation:	G27, G36
Ideal For:	通用色谱柱

### Heliflex AT<sup>®</sup>-5+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.-max.	Old Reference	Part No.
10m	0.53mm	2.65µm	-60-300°C	16853	<b>8635102</b>
	0.25mm	0.25µm	-60-330/350°C	13758	<b>8635127</b>
15m	0.25mm	1.00µm	-60-320/330°C	13706	<b>8635126</b>
	0.32mm	0.25µm	-60-330/350°C	13887	<b>8635157</b>
	0.32mm	1.00µm	-60-320/330°C	13710	<b>8635156</b>
	0.53mm	1.20µm	-60-320/330°C	955115	<b>8635203</b>
	0.53mm	1.50µm	-60-320/330°C	13906	<b>8635201</b>
25m	0.25mm	0.20µm	-60-330/350°C	952525	<b>5123553</b>
30m	0.25mm	0.10µm	-60-330/350°C	13707	<b>8635221</b>
	0.25mm	0.25µm	-60-330/350°C	13656	<b>8635222</b>
	0.25mm	0.50µm	-60-330/350°C	13309	<b>8635220</b>
	0.25mm	1.00µm	-60-320/330°C	13657	<b>8635223</b>
	0.32mm	0.25µm	-60-330/350°C	13658	<b>8635260</b>
	0.32mm	1.00µm	-60-320/330°C	13659	<b>8635261</b>
	0.53mm	0.50µm	-60-330/350°C	14045	<b>8635311</b>
	0.53mm	1.00µm	-60-320/330°C	13798	<b>8635309</b>
	0.53mm	1.20µm	-60-320/330°C	955130	<b>8635314</b>
	0.53mm	1.50µm	-60-320/330°C	13909	<b>8635310</b>
	0.53mm	2.65µm	-60-300°C	16857	<b>8635312</b>
	0.53mm	5.00µm	-60-300°C	16859	<b>8635313</b>
	60m	0.25mm	0.25µm	-60-330/350°C	13676
0.32mm		0.25µm	-60-330/350°C	13678	<b>8635369</b>
0.32mm		1.00µm	-60-320/330°C	13679	<b>8635366</b>
0.53mm		1.00µm	-60-320/330°C	14076	<b>8635397</b>
0.53mm		1.20µm	-60-320/330°C	13820	<b>8635396</b>
100m	0.53mm	5.00µm	-60-300°C	13829	<b>8635394</b>
	0.32mm	0.25µm	-60-330/350°C	14011	<b>8635905</b>

Contact us  
for more info

Custom Capillary Coiling Available  
Custom Capillary Column Dimensions Available  
Custom Capillary Column with Integral Guard Available  
FAST-GC narrow-bore Column Dimensions Available

## Econo-Cap EC<sup>®</sup>-5+

- 批量测试可大幅降低价格

### Econo-Cap EC<sup>®</sup>-5+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.53mm	1.20µm	-60–320/330°C	19645	<b>8635034</b>
30m	0.25mm	0.25µm	-60–330/350°C	19647	<b>8635042</b>
	0.32mm	0.25µm	-60–330/350°C	19646	<b>8635050</b>
	0.53mm	1.00µm	-60–320/330°C	19671	<b>8635058</b>
	0.53mm	1.20µm	-60–320/330°C	19657	<b>8635059</b>



### Econo-Cap EC<sup>®</sup>-5+ Capillary Columns, Six Pack

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	-60–330/350°C	196476	<b>5122223</b>
	0.32mm	0.25µm	-60–330/350°C	196466	<b>5122221</b>
	0.53mm	1.20µm	-60–320/330°C	196576	<b>5122237</b>

## Heliflex AT<sup>®</sup>-50+

- 通用色谱柱
- 类似  
DB-17, DB-17ht, Rtx<sup>®</sup>-50, BPXTM-50, SPB-50, SP-2250, HP-50+, HP-17,007-17, OV<sup>™</sup>-17, CP-Sil 24CB, PE-17, ZB-50

### Heliflex AT<sup>®</sup>-50+ Specifications

<b>Phase:</b>	50%苯基-50%甲基聚硅氧烷
<b>Polarity:</b>	中等极性
<b>USP Code:</b>	G3
<b>Ideal For:</b>	杀虫剂、除草剂、邻苯二甲酸酯类、游离酚类和基本药物

### Heliflex AT<sup>®</sup>-50+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.25mm	0.25µm	40–320/340°C	13837	<b>8635137</b>
	0.53mm	1.00µm	40–280/300°C	13876	<b>8635196</b>
30m	0.25mm	0.25µm	40–320/340°C	13839	<b>8635241</b>
	0.32mm	0.25µm	40–320/340°C	13858	<b>8635280</b>
	0.53mm	0.50µm	40–300/320°C	13991	<b>8635316</b>
	0.53mm	1.00µm	40–280/300°C	13878	<b>8635315</b>

## Heliflex AT<sup>®</sup>-20+

- 非极性和非极性之间的独特极性
- 类似007-7, Rtx<sup>®</sup>-20, SPBTM-20, VOCOLTM, PE-7

### Heliflex AT<sup>®</sup>-20+ Specifications

<b>Phase:</b>	20%苯基-80%甲基聚硅氧烷
<b>Polarity:</b>	中等极性
<b>USP Designation:</b>	G28, G32
<b>Ideal For:</b>	挥发性化合物和溶剂

### Heliflex AT<sup>®</sup>-20+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.25mm	0.25µm	-20–320/340°C	13838	<b>8635138</b>
30m	0.25mm	0.25µm	-20–320/340°C	13857	<b>8635242</b>
	0.53mm	1.00µm	-20–300/320°C	13882	<b>8635299</b>
	0.53mm	1.20µm	-20–300/320°C	13932	<b>8635300</b>

## Heliflex AT<sup>®</sup>-1301+

- 独特的极性使其成为你理想选择
- 类似BP624, DB-1301, Rtx<sup>®</sup>-1301, Rtx<sup>®</sup>-624, HP-1301, HP-624, DB-624, 007-624, 007-1301, SPB<sup>™</sup>-1301, SPB<sup>™</sup>-624, ZB-624

### Heliflex<sup>®</sup> AT<sup>™</sup>-1301 Specifications

<b>Phase:</b>	6%氰基丙基-84%甲基聚硅氧烷
<b>Polarity:</b>	中等极性
<b>USP Code:</b>	G43
<b>Ideal For:</b>	挥发性有机物、药物和EPA方法612

### Heliflex AT<sup>®</sup>-1301+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.53mm	1.00µm	-20–240/260°C	13970	<b>M8635565</b>
	0.53mm	3.00µm	-20–240/260°C	15562	<b>M8635544</b>

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Custom Capillary Coiling **Available**  
 Custom Capillary Column Dimensions **Available**  
 Custom Capillary Column with Integral Guard **Available**  
 FAST-GC narrow-bore Column Dimensions **Available**

Contact us for more info

## Heliflex AT<sup>®</sup>-35ms+

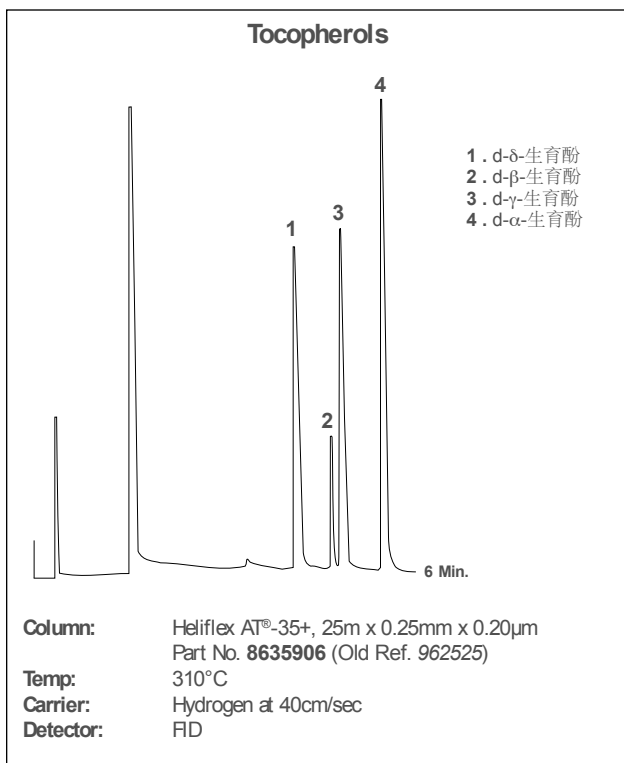
- 保证低流失
- 专为质谱分析而设计
- 类似于DB-35ms, Rtx<sup>®</sup>-35, SPBTM-35, SUP-HERBTM, MDN-35, BPX<sup>™</sup>-35

### Heliflex AT<sup>®</sup>-35ms+ Specifications

<b>Phase:</b>	35%苯基-65%甲基聚硅氧烷
<b>Polarity:</b>	中等极性
<b>USP Designation:</b>	G42
<b>Ideal For:</b>	杀虫剂、除草剂、药物、芳香剂

### Heliflex AT<sup>®</sup>-35ms+ Capillary Column

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	-40–320/340°C	12589	<b>8635213</b>
60m	0.25mm	0.25µm	-40–320/340°C	12590	<b>8635332</b>



## Heliflex AT<sup>®</sup>-35+

- 农药分析的理想色谱柱
- 类DB-35, DB-35ms, Rtx<sup>®</sup>-35, BPX<sup>™</sup>-35, SPB<sup>™</sup>-35, SPB<sup>™</sup>-608, HP-35,007-11, OV<sup>™</sup>-11, RSL-300, PE-35, SUP-HERBTM, ZB-35

### Heliflex AT<sup>®</sup>-35+ Specifications

<b>Phase:</b>	35%苯基-65%甲基聚硅氧烷
<b>Polarity:</b>	中等极性
<b>USP Designation:</b>	G42
<b>Ideal For:</b>	杀虫剂、除草剂、药物、芳香剂

### Heliflex AT<sup>®</sup>-35+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
10m	0.53mm	1.20µm	-40–300°C	965110	<b>8635108</b>
	0.53mm	2.65µm	-40–280/300°C	16877	<b>8635109</b>
15m	0.53mm	1.20µm	-40–300°C	965115	<b>8635193</b>
25m	0.53mm	1.20µm	-40–300°C	965125	<b>8635212</b>
	0.25mm	0.25µm	-40–320/340°C	13642	<b>8635216</b>
30m	0.25mm	1.00µm	-40–300/320°C	13796	<b>8635218</b>
	0.32mm	0.25µm	-40–320/340°C	13644	<b>8635249</b>
	0.32mm	0.50µm	-40–320/330°C	13645	<b>8635250</b>
	0.53mm	1.00µm	-40–300°C	14001	<b>8635296</b>
	0.53mm	1.20µm	-40–300°C	965130	<b>8635297</b>
60m	0.53mm	2.65µm	-40–280/300°C	16878	<b>8635298</b>
	0.25mm	0.25µm	-40–320/340°C	13682	<b>8635341</b>
	0.53mm	1.00µm	-40–320/340°C	14070	<b>8635399</b>

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## Contact us for more info

Custom Capillary Coiling **Available**  
 Custom Capillary Column Dimensions **Available**  
 Custom Capillary Column with Integral Guard **Available**  
 FAST-GC narrow-bore Column Dimensions **Available**

## Heliflex AT<sup>®</sup>-210+

- 类似 DB-210, Rtx<sup>®</sup>-200, OV<sup>™</sup>-202, OV<sup>™</sup>-210, OV<sup>™</sup>-215, QF-1, SP-2401, RSL-400

### Heliflex AT<sup>®</sup>-210+ Specifications

<b>Phase:</b>	三氟丙基甲基聚硅氧烷
<b>Polarity:</b>	极性
<b>USP Code:</b>	G6
<b>Ideal For:</b>	酮、醛、硅烷、二醇、硝基芳烃、除草剂和ESP8140和609

### Heliflex AT<sup>®</sup>-210+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.-max.	Old Reference	Part No.
15m	0.53mm	1.00µm	40–240°C	13127	<b>8635189</b>
	0.53mm	1.20µm	40–240°C	985115	<b>8635190</b>
30m	0.53mm	1.00µm	40–240°C	13136	<b>8635293</b>
	0.53mm	1.20µm	40–240°C	985130	<b>8635294</b>

## Heliflex AT<sup>®</sup>-1701+

- 类似DB-1701, OV<sup>™</sup>-1701, SPB<sup>™</sup>-1701, Rtx<sup>®</sup>-1701, 007-1701, PAS-1701, CP-Sil 19CB, HP-1701, BP-10, ZB-1701

### Heliflex AT<sup>®</sup>-1701+ Specifications

<b>Phase:</b>	14%氨基丙基苯基-86%甲基聚硅氧烷
<b>Polarity:</b>	中等极性
<b>USP Code:</b>	n/a
<b>Ideal For:</b>	杀虫剂、多氯联苯、药物、除草剂和TMS糖

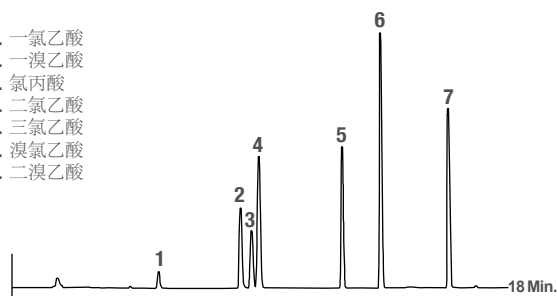
### Heliflex AT<sup>®</sup>-1701+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.-max.	Old Reference	Part No.
15m	0.25mm	0.25µm	-20–280°C	13881	<b>M8635566</b>
	0.32mm	0.25µm	-20–280°C	13762	<b>M8635567</b>
30m	0.25mm	0.25µm	-20–280°C	13686	<b>M8635558</b>
	0.25mm	1.00µm	-20–260/280°C	13687	<b>M8635568</b>
	0.32mm	0.25µm	-20–280°C	13690	<b>5121863</b>
	0.32mm	1.00µm	-20–260/280°C	13691	<b>M8635517</b>
60m	0.53mm	1.00µm	-20–260/280°C	13795	<b>M8635569</b>
	0.53mm	1.20µm	-20–260/280°C	13830	<b>8635M405</b>
	0.25mm	0.25µm	-20–280°C	13688	<b>M8635570</b>
	0.25mm	1.00µm	-20–260/280°C	13689	<b>M8635571</b>
	0.32mm	0.25µm	-20–280°C	13692	<b>M8635572</b>
	0.32mm	1.00µm	-20–260/280°C	13693	<b>M8635573</b>
	0.53mm	1.00µm	-20–260/280°C	14131	<b>M8635574</b>

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### EPA Method 552.1: Haloacetic Acids

1. 一氯乙酸
2. 一溴乙酸
3. 氯丙酸
4. 二氯乙酸
5. 三氯乙酸
6. 溴氯乙酸
7. 二溴乙酸



**Column:** Heliflex AT<sup>®</sup>-1701+, 30m x 0.32mm x 0.25µm  
Part No. **5121863** (Old. Ref. 13690)  
**Temp:** 50°C (10min hold) to 120°C at 10°C/min  
**Carrier Gas:** Helium at 35cm/sec  
**Detector:** ECD

## Contact us for more info

Custom Capillary Coiling **Available**  
Custom Capillary Column Dimensions **Available**  
Custom Capillary Column with Integral Guard **Available**  
FAST-GC narrow-bore Column Dimensions **Available**

## Heliflex AT®-WAX+

- 类似 DB-WAX, DB-WAXetr, Rtx®-WAX, Stabilwax®, Carbowax® 20M, Supelcowax™-10, Innowax™, HP-20M, HP-Wax, BP-20, CP-Wax 52-CB, 7-CW, Superox® II, OmegaWAX™, ZB-WAX

Heliflex AT®-WAX+ Specifications	
Phase:	100% 聚乙二醇
Polarity:	极性
USP Code:	G14, G15, G16, G39
Ideal For:	FAMES, 极性溶剂, BTEX, 香料和香料, 二醇, 醇类和芳香族化合物

### Heliflex AT®-WAX+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
10m	0.53mm	1.20µm	40–250/260°C	9951102	8635111
15m	0.25mm	0.50µm	40–250/260°C	137302	8635116
	0.32mm	0.50µm	40–250/260°C	137352	8635162
	0.32mm	1.00µm	40–250/260°C	137362	8635163
15m	0.53mm	0.50µm	40–250/260°C	14109	8635174
	0.53mm	1.00µm	40–250/260°C	13904	8635177
	0.53mm	1.20µm	40–250/260°C	9951152	8635179
25m	0.25mm	0.20µm	40–250/270°C	9925252	M8635502
	0.32mm	0.30µm	40–250/270°C	9932252	M8635545
	0.53mm	1.20µm	40–250/260°C	9951252	8635211
30m	0.25mm	0.20µm	40–250/270°C	9925302	8635229
	0.25mm	0.25µm	40–250/270°C	136462	8635230
	0.25mm	0.50µm	40–250/260°C	136472	8635231
	0.32mm	0.25µm	40–250/270°C	136482	8635275
	0.32mm	0.30µm	40–250/270°C	9932302	8635274
	0.32mm	0.50µm	40–250/260°C	136522	8635276
	0.32mm	1.00µm	40–250/260°C	137382	8635277
	0.53mm	0.50µm	40–250/260°C	14111	8635291
	0.53mm	1.00µm	40–250/260°C	13907	8625290
	0.53mm	1.20µm	40–250/260°C	9951302	8635292
50m	0.32mm	0.30µm	40–250/270°C	9932502	8635324
	0.53mm	1.20µm	40–250/260°C	13946	8635329
60m	0.25mm	0.20µm	40–250/270°C	9925602	8635349
	0.25mm	0.25µm	40–250/270°C	136942	8635350
	0.32mm	0.25µm	40–250/270°C	136962	8635372
	0.32mm	0.30µm	40–250/270°C	9932602	8635373
	0.32mm	0.50µm	40–250/260°C	136972	8635374
	0.53mm	1.00µm	40–250/260°C	13929	8635383
	0.53mm	1.20µm	40–250/260°C	13850	8635381

## Heliflex AT®-WAXms+

- 适用于低流失质谱
- 类似 DB-WAX, Rtx®-WAX, Supelcowax™-10

Heliflex AT®-WAXms+ Specifications	
Phase:	100% 聚乙二醇
Polarity:	极性
USP Code:	G14, G15, G16, G39
Ideal For:	常规分析

### Heliflex AT®-WAXms+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	40–250/270°C	12604	8635232
	0.32mm	0.25µm	40–250/270°C	12607	8635248
60m	0.25mm	0.25µm	40–250/270°C	12605	8635356

\*: Maximum Temperature range may change depending on stationary phase film thickness.  
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## Contact us for more info

Custom Capillary Coiling Available  
 Custom Capillary Column Dimensions Available  
 Custom Capillary Column with Integral Guard Available  
 FAST-GC narrow-bore Column Dimensions Available

## Econo-Cap EC<sup>®</sup>-WAX+

- 批量测试以大幅降低价格
- 有关相位规格, 请参阅
- Heliflex<sup>®</sup> AT<sup>™</sup> 版本

### Econo-Cap EC<sup>®</sup>-WAX+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.53mm	1.20µm	40–250/260°C	19653	<b>8635038</b>
30m	0.25mm	0.25µm	40–250/270°C	19655	<b>8635044</b>
	0.32mm	0.25µm	40–250/270°C	19654	<b>8635053</b>
	0.53mm	1.20µm	40–250/260°C	19659	<b>8635064</b>

### Econo-Cap EC<sup>®</sup>-WAX+ Six-Pack Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	40–250/270°C	196556	<b>5122233</b>
	0.32mm	0.25µm	40–250/270°C	196546	<b>5122231</b>
	0.53mm	1.20µm	40–250/260°C	196596	<b>5122240</b>

best value

## Heliflex AT<sup>®</sup>-AquaWax+

- Designed and tested for aqueous injections
- Similar to DB-Wax, DB-Waxer, Rtx<sup>®</sup>-WAX, Stabilwax<sup>®</sup>, HP-Wax, HP-20M, HP-Innowax, MEGA-WAX Plus, ZB-Wax, and Supelcowax<sup>™</sup>-10

### Heliflex AT<sup>®</sup>-AquaWax+ Specifications

<b>Phase:</b>	100% Polyethyleneglycol
<b>Polarity:</b>	Polar
<b>USP Code:</b>	N/A
<b>Ideal For:</b>	Food and Beverage Analysis

### Heliflex AT<sup>®</sup>-AquaWax+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	40–250/260°C	12437	<b>5121748</b>
	0.32mm	0.25µm	40–250/260°C	12439	<b>5121750</b>
60m	0.25mm	0.25µm	40–250/260°C	12447	<b>5121751</b>
	0.32mm	0.25µm	40–250/260°C	12449	<b>5121752</b>

## Heliflex AT<sup>®</sup>-AquaWax DA+

- 针对水性注射进行设计和测试
- 无需衍生化酸性有机化合物
- 类似 DB-FFAP, Stabilwax<sup>®</sup>, HP-FFAP-DA, ZB-FFAP, SPB<sup>™</sup>-1000, and Nukol<sup>™</sup>

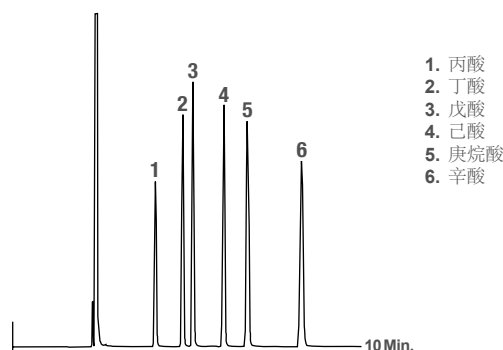
### Heliflex AT<sup>®</sup>-AquaWax DA+ Specifications

<b>Phase:</b>	100% 酸改性聚乙二醇
<b>Polarity:</b>	极性
<b>USP Code:</b>	N/A
<b>Ideal For:</b>	酸性有机物和游离脂肪酸的分析

### Heliflex AT<sup>®</sup>-AquaWax DA+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	40–250/260°C	14537	<b>5122065</b>
	0.32mm	0.25µm	40–250/260°C	14539	<b>5122066</b>
	0.53mm	1.00µm	40–250/260°C	14543	<b>5122067</b>
60m	0.25mm	0.25µm	40–250/260°C	14547	<b>5122068</b>

### Free Fatty Acids



**Column:** Heliflex AT<sup>®</sup>-AquaWax DA+, 30m x 0.25mm x 0.25µm  
Part No. **5122065** (Old Ref. 14537)

**Temp:** 180°C

**Carrier Gas:** Helium at 22cm/sec

**Detector:** FID

\*: Maximum Temperature range may change depending on stationary phase film thickness.  
In this catalog are reported only the most common GC columns dimensions and part numbers.  
Contact us for other items and custom products.

Custom Capillary Coiling **Available**  
 Custom Capillary Column Dimensions **Available**  
 Custom Capillary Column with Integral Guard **Available**  
 FAST-GC narrow-bore Column Dimensions **Available**

Contact us for more info

## Heliflex AT<sup>®</sup>-1000+

- 类似DB<sup>™</sup>-FFAP, Stabilwax<sup>®</sup>-DA, SPB<sup>™</sup>-1000, Nukol<sup>™</sup>, HP-FFAP, BP-21, CP-Wax-58-CB, 007-FFAP, OV<sup>™</sup>-351, FFAP, Superox<sup>®</sup>-FA, ZB-FFAP

Heliflex AT <sup>®</sup> -1000+ Specifications	
Phase:	100% 酸改性聚乙二醇
Polarity:	极性
USP Code:	G25, G35
Ideal For:	游离脂肪酸

### Heliflex AT<sup>®</sup>-1000+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
10m	0.53mm	1.20µm	40–250°C	975110	8635112
15m	0.53mm	1.00µm	40–250°C	13873	8635191
	0.53mm	1.20µm	40–250°C	975115	8635192
25m	0.25mm	0.20µm	40–250/260°C	972525	5123576
	0.32mm	0.30µm	40–250/260°C	973225	M8635575
30m	0.25mm	0.25µm	40–250/260°C	13783	8635247
	0.32mm	0.25µm	40–250/260°C	13785	8635266
	0.32mm	0.30µm	40–250/260°C	973230	8635267
	0.53mm	1.00µm	40–250°C	13877	8635284
50m	0.53mm	1.20µm	40–250°C	975130	8635285
	0.53mm	2.00µm	40–250°C	13017	8635283
	0.25mm	0.20µm	40–250/260°C	972550	8635319
60m	0.32mm	0.30µm	40–250/260°C	973250	8635327
	0.25mm	0.25µm	40–250/260°C	13784	8635345
	0.32mm	0.25µm	40–250/260°C	13786	8635359
	0.32mm	0.30µm	40–250/260°C	973260	8635360
	0.32mm	1.00µm	40–250°C	13276	8635358
	0.53mm	1.00µm	40–250°C	13879	8635402

## Econo-Cap EC<sup>®</sup>-1000+

- 批量测试以大幅降低价格
- 有关相位规格, 请参阅Heliflex<sup>®</sup>AT<sup>™</sup>版本

### Econo-Cap EC<sup>®</sup>-1000+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.53mm	1.20µm	40–250°C	19684	8635040
30m	0.25mm	0.25µm	40–250/260°C	19686	8635045
	0.32mm	0.25µm	40–250/260°C	19685	8635054
	0.53mm	1.20µm	40–250°C	19688	8635066

### Econo-Cap EC<sup>®</sup>-1000+ Six-Pack Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.32mm	0.25µm	40–250/260°C	196856	5122259
	0.53mm	1.20µm	40–250°C	196886	M8635576

\*: Maximum Temperature range may change depending on stationary phase film thickness.  
In this catalog are reported only the most common GC columns dimensions and part numbers.  
Contact us for other items and custom products.

best value

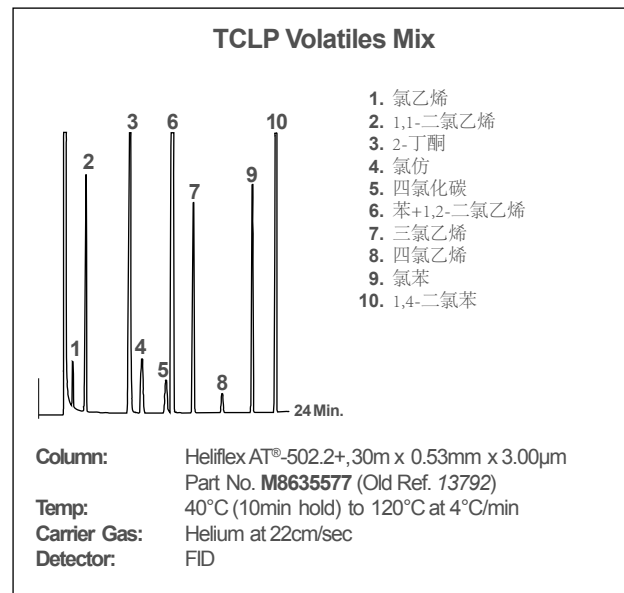
## Heliflex AT<sup>®</sup>-502.2+

- 在分离早期洗脱气体环境温度
- 适用于挥发性有机物分析, 包括EPA方法 502.2, 524.2, 8260

Heliflex AT <sup>®</sup> -502.2+ Specifications	
Phase:	专利
Polarity:	中等极性
USP Code:	n/a
Ideal For:	挥发性有机物和EPA方法502.2、524.2和8260

### Heliflex AT<sup>®</sup>-502.2+ Capillary Columns

Length	i.d.	Film	Temp. Limit* max.	Old Reference	Part No.
60m	0.25mm	1.40µm	280/300°C	13788	M86355022
	0.32mm	1.80µm	280/300°C	13790	5121932
	0.53mm	3.00µm	280/300°C	13793	5121935
105m	0.32mm	1.80µm	280/300°C	13791	M8635533



Contact us  
for more info

Custom Capillary Coiling Available  
Custom Capillary Column Dimensions Available  
Custom Capillary Column with Integral Guard Available  
FAST-GC narrow-bore Column Dimensions Available

## Heliflex AT<sup>®</sup>-624+

- 针对EPA方法624进行了特殊测试
- 类似 DB<sup>™</sup>-1301, Rtx<sup>®</sup>-1301, Rtx<sup>®</sup>-624, HP-1301, HP-624, DB<sup>™</sup>-624, 007<sup>™</sup>-624, 007<sup>™</sup>-1301, SPB<sup>™</sup>-1301, SPB<sup>™</sup>-624, ZB-624

### Heliflex AT<sup>®</sup>-624+ Specifications

<b>Phase:</b>	6%氰基丙基苯基-94%甲基聚硅氧烷
<b>Polarity:</b>	中等极性
<b>USP Code:</b>	G43
<b>Ideal For:</b>	EPA方法524、601、602、624、8240和8260, 以及溶剂分析

### Heliflex AT<sup>®</sup>-624+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.-max.	Old Reference	Part No.
30m	0.25mm	1.40µm	-20-240/260°C	13754	<b>8635239</b>
	0.32mm	1.80µm	-20-240/260°C	13756	<b>8635278</b>
	0.32mm	3.00µm	-20-240/260°C	13780	<b>8635279</b>
	0.53mm	3.00µm	-20-240/260°C	16889	<b>8635317</b>
60m	0.25mm	1.40µm	-20-240/260°C	13503	<b>8635333</b>
	0.32mm	1.80µm	-20-240/260°C	13799	<b>8635375</b>
	0.53mm	3.00µm	-20-240/260°C	13800	<b>8635400</b>
75m	0.53mm	3.00µm	-20-240/260°C	13937	<b>8635403</b>

## Heliflex AT<sup>®</sup>-225+

- 类似 DB<sup>™</sup>-225, HP-225, Rtx<sup>®</sup>-225, OV<sup>™</sup>-225, RSL-500, 007-225, CP-Sil 43CB, BP-225, PE-225

### Heliflex AT<sup>®</sup>-225+ Specifications

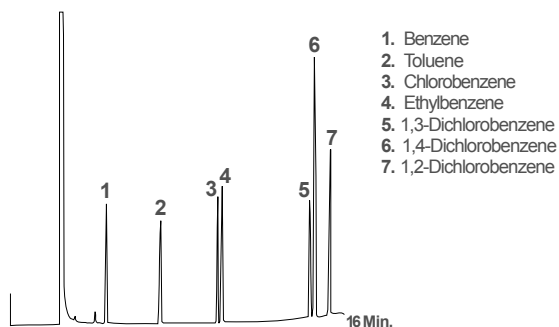
<b>Phase:</b>	50%氰基丙基苯基-50%甲基聚硅氧烷
<b>Polarity:</b>	中高极性
<b>USP Code:</b>	G19
<b>Ideal For:</b>	碳水化合物和溶剂

### Heliflex AT<sup>®</sup>-225+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.-max.	Old Reference	Part No.
15m	0.25mm	0.25µm	40-240°C	13883	<b>8635139</b>
25m	0.25mm	0.20µm	40-240°C	912525	<b>M8635537</b>
30m	0.25mm	0.25µm	40-240°C	13773	<b>8635240</b>
	0.32mm	0.25µm	40-240°C	13775	<b>8635264</b>
	0.32mm	0.30µm	40-240°C	913230	<b>8635265</b>
	0.53mm	1.20µm	40-220°C	915130	<b>8635308</b>

\*: Maximum Temperature range may change depending on stationary phase film thickness.  
In this catalog are reported only the most common GC columns dimensions and part numbers.  
Contact us for other items and custom products.

### EPA Method 602 - Purgeable Aromatics



1. Benzene
2. Toluene
3. Chlorobenzene
4. Ethylbenzene
5. 1,3-Dichlorobenzene
6. 1,4-Dichlorobenzene
7. 1,2-Dichlorobenzene

**Column:** Heliflex AT<sup>®</sup>-624+, 30m x 0.32mm x 1.80µm  
Part No. **8635278** (Old Ref. 13756)

**Temp:** 90°C (7min hold) to 180°C at 10°C/min

**Carrier Gas:** Helium at 1.1mL/min

**Detector:** FID

Custom Capillary Coiling **Available**  
 Custom Capillary Column Dimensions **Available**  
 Custom Capillary Column with Integral Guard **Available**  
 FAST-GC narrow-bore Column Dimensions **Available**

Contact us for more info

## Heliflex AT<sup>®</sup>-SILAR-90+

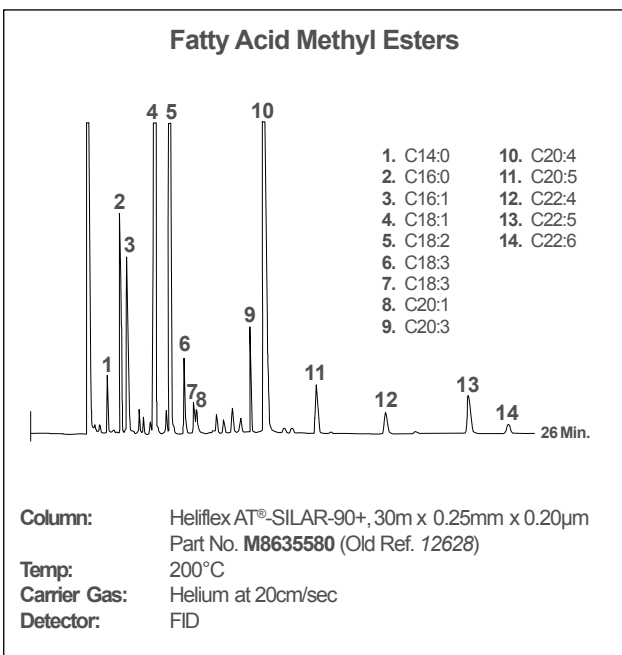
- 为FAME设计和测试
- 类似 DB<sup>™</sup>-23, CP-Sil 84, Rtx<sup>®</sup>-2330, SP-2330

Heliflex AT <sup>®</sup> -SILAR-90+ Specifications	
<b>Phase:</b>	聚90%双氧基丙基-10%氧基丙基硅氧烷
<b>Polarity:</b>	高极性
<b>USP Code:</b>	G8
<b>Ideal For:</b>	FAMES

### Heliflex AT<sup>®</sup>-SILAR-90+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.25mm	0.20µm	60–250°C	12627	<b>M8635579</b>
30m	0.25mm	0.20µm	60–250°C	12628	<b>M8635580</b>
	0.32mm	0.20µm	60–250°C	12630	<b>M8635581</b>

Available also in 60m, 100m and 105m Lengths



### tech tip

**Tips for Heliflex AT<sup>®</sup>-SILAR-90+ and AT<sup>®</sup>-SILAR-100+;**  
SILAR-90+ and SILAR-100+ are more susceptible to damage by oxygen, moisture, and HCl than other silicone phases. Avoid solvents such as water and methanol when using on-column injection techniques. Columns should not be rinsed.

## Heliflex AT<sup>®</sup>-SILAR-100+

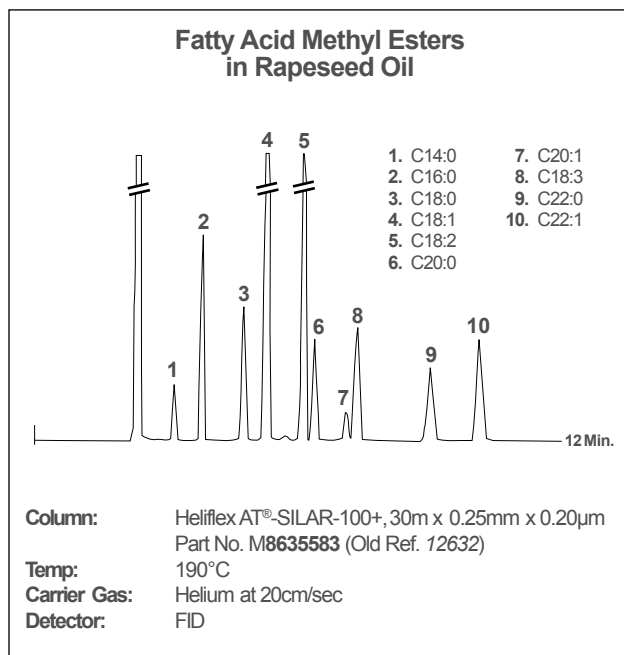
- 适用于含有FAME几何异构体的样品的高温 and 低温分离
- 类似 CO-Sil 88, Rtx<sup>®</sup>-2330, SP-2340

Heliflex AT <sup>®</sup> -SILAR-100+ Specifications	
<b>Phase:</b>	聚双氧基丙基硅氧烷
<b>Polarity:</b>	高极性
<b>USP Code:</b>	G8
<b>Ideal For:</b>	顺反式FAME、二恶英和呋喃

### Heliflex AT<sup>®</sup>-SILAR-100+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.25mm	0.20µm	60–250°C	12631	<b>M8635582</b>
30m	0.25mm	0.20µm	60–250°C	12632	<b>M8635583</b>
	0.32mm	0.20µm	60–250°C	12634	<b>M8635584</b>

Available also in 60m, 100m and 105m Lengths



\*: Maximum Temperature range may change depending on stationary phase film thickness.  
In this catalog are reported only the most common GC columns dimensions and part numbers.  
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Custom Capillary Coiling **Available**  
Custom Capillary Column Dimensions **Available**  
Custom Capillary Column with Integral Guard **Available**  
FAST-GC narrow-bore Column Dimensions **Available**

Contact us for more info

## Heliflex AT<sup>®</sup>-3710+

- 适用于高沸点的汽油样品

Heliflex AT <sup>®</sup> -3710+ Specifications	
Phase:	100% 聚甲基硅氧烷
Polarity:	非极性
USP Code:	n/a
Ideal For:	汽油

### Heliflex AT<sup>®</sup>-3710+ Capillary Column

Length	i.d.	Film	Temp. Limit* max.	Old Reference	Part No.
15m	0.53mm	5.00µm	300°C	13949	<b>M8635585</b>

## Heliflex AT<sup>®</sup>-Sulfur+

- 设计用于分析石油馏分中的挥发性含硫化合物

Heliflex AT <sup>®</sup> -Sulfur+ Specifications	
Phase:	100% 甲基聚硅氧烷
Polarity:	非极性
USP Code:	n/a
Ideal For:	挥发性硫化物

### Heliflex AT<sup>®</sup>-Sulfur+ Capillary Columns

Length	i.d.	Film	Temp. Limit* min.–max.	Old Reference	Part No.
30m	0.32mm	4.00µm	-20–320°C	14029	<b>M8635551</b>

## Heliflex AT<sup>®</sup>-Petro+

- 用于复杂烃类混合物

Heliflex AT <sup>®</sup> -Petro+ Specifications	
Phase:	100% 甲基聚硅氧烷
Polarity:	非极性
USP Code:	n/a
Ideal For:	碳氢化合物混合物

### Heliflex AT<sup>®</sup>-Petro+ Capillary Column

Length	i.d.	Film	Temp. Limit* max.	Old Reference	Part No.
100m	0.25mm	0.50µm	330/340°C	13948	<b>M8635586</b>

\*: Maximum Temperature range may change depending on stationary phase film thickness.  
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## Contact us for more info

Custom Capillary Coiling **Available**  
 Custom Capillary Column Dimensions **Available**  
 Custom Capillary Column with Integral Guard **Available**  
 FAST-GC narrow-bore Column Dimensions **Available**

Contact us:

Hmingtech@aliyun.com



中国区总代理:艾驰明科技(江苏)有限公司

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Econo-Cap  
&  
Heliflex GC COLUMN