

VertiBond™ 20

VertiBond™ 20 Capillary Columns

- 20% Phenyl, 80% Dimethylpolysiloxane
- Intermediate polar stationary phase
- High temperature range
- High efficiency, high inertness columns

VertiBond™ 20 contains 20% Phenyl, 80% Dimethyl polysiloxane stationary phases. This intermediate polarity phase offers unique polarity to give balance between low and mid polarity.

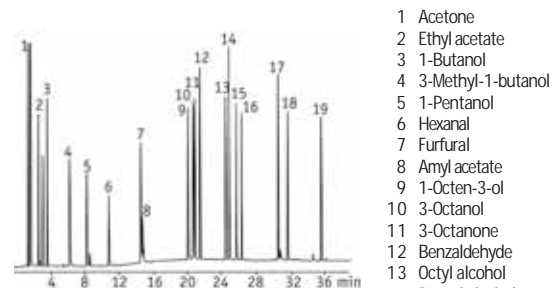


VertiBond™ 20 Capillary Columns					
Length (m)	I.D. (mm)	Film (µm)	Temp. Limits (°C)	Part No.	
15	0.25	0.10	300/320	0404-2001	
		0.25	300/320	0404-2051	
		0.50	290/310	0404-2091	
	0.32	0.10	1.00	280/300	0404-2111
			0.10	300/320	0404-3001
			0.25	300/320	0404-3051
		0.50	0.25	290/310	0404-3091
			1.00	280/300	0404-3111
			3.00	250/270	0404-3191
	0.53	0.10	0.10	260/280	0404-5001
			0.25	260/280	0404-5051
			0.50	260/280	0404-5091
1.00		1.00	260/280	0404-5111	
		1.20	260/280	0404-5121	
		1.50	250/270	0404-5151	
25	0.53	3.00	240/260	0404-5191	
		1.20	260/280	0404-5122	
30	0.25	0.10	300/320	0404-2003	
		0.25	300/320	0404-2053	
		0.50	290/310	0404-2093	
	0.32	0.10	1.00	280/300	0404-2113
			0.10	300/320	0404-3003
			0.25	300/320	0404-3053
		0.50	0.25	290/310	0404-3093
			1.00	280/300	0404-3113
			3.00	250/270	0404-3193
	0.53	0.10	0.10	260/280	0404-5003
			0.25	260/280	0404-5053
			0.50	260/280	0404-5093

VertiBond™ 20 Specifications	
Phase:	20% Phenyl, 80% Dimethylpolysiloxane
Polarity:	Intermediate Polar
USP Designation:	G28, G32
Ideal for:	Volatile Compounds and Solvents

VertiBond™ 20 equivalent phase	
Restek	Rtx-20
Supelco	SPB-20, VOCOL
Alltech	AT-20
Ohio Valley	OV-20

Mushroom Aroma (Synthetic)



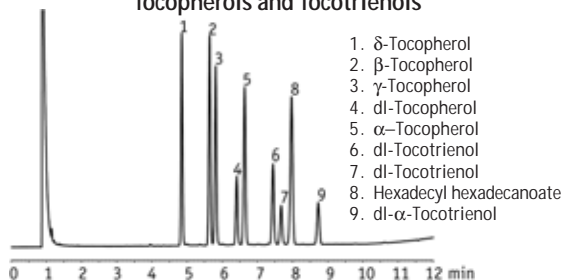
Column: VertiBond™ 20, 30m x 0.32mm, 1.0µm
 Part No.: 0404-3113
 Temp: 45 (hold 8 min) to 250°C at 4°C/min
 Injector: 1µL split injection at 260°C (split ratio: 100:1)
 Detector: FID
 Carrier Gas: Hydrogen 40cm/sec

- 1 Acetone
- 2 Ethyl acetate
- 3 1-Butanol
- 4 3-Methyl-1-butanol
- 5 1-Pentanol
- 6 Hexanal
- 7 Furfural
- 8 Amyl acetate
- 9 1-Octen-3-ol
- 10 3-Octanol
- 11 3-Octanone
- 12 Benzaldehyde
- 13 Octyl alcohol
- 14 Benzyl alcohol
- 15 Phenylacetaldehyde
- 16 Nonanal
- 17 α-Terpineol
- 18 2,4-Nonadienal
- 19 2,4-Decadienal

VertiBond™ 20 Capillary Columns

Length (m)	I.D. (mm)	Film (µm)	Temp. Limits (°C)	Part No.
30	0.53	1.00	260/280	0404-5113
		1.20	260/280	0404-5123
		1.50	250/270	0404-5153
		3.00	240/260	0404-5193
		60	0.25	0.10
0.25	300/320	0404-2055		
0.50	290/310	0404-2095		
1.00	280/300	0404-2115		
0.32	0.10	300/320		0404-3005
0.25	300/320	0404-3055		
0.50	290/310	0404-3095		
1.00	280/300	0404-3115		
3.00	250/270	0404-3195		
0.53	0.10	260/280		0404-5005
	0.25	260/280	0404-5055	
	0.50	260/280	0404-5095	
	1.00	260/280	0404-5115	
	1.50	250/270	0404-5155	
	3.00	240/260	0404-5195	
105	0.25	0.25	300/320	0404-2057

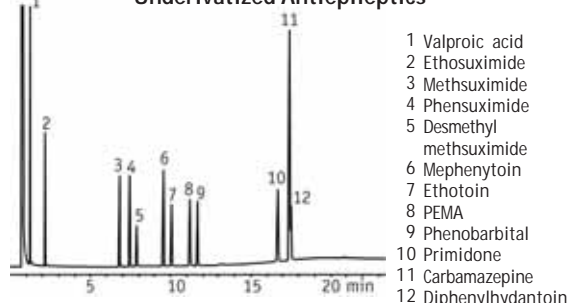
Tocopherols and Tocotrienols



1. δ-Tocopherol
2. β-Tocopherol
3. γ-Tocopherol
4. dl-Tocopherol
5. α-Tocopherol
6. dl-Tocotrienol
7. dl-Tocotrienol
8. Hexadecyl hexadecanoate
9. dl-α-Tocotrienol

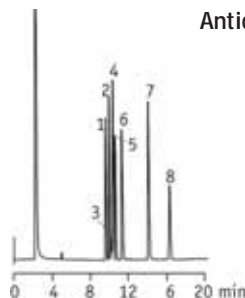
Column: VertiBond™ 20, 30m x 0.53mm, 0.5µm
 Part No.: 0404-5093
 Temp: 270°C to 290°C at 2°C/min
 290°C to 320°C at 10°C/min (1 min hold)
 Injection: 1.0µL split (split ratio 20:1)
 4mm inlet liner at 320°C
 Detector: FID at 320°C
 Carrier Gas: Hydrogen constant flow (5.2mL/min)

Underivatized Antiepileptics



Column: VertiBond™ 20, 15m x 0.32mm, 0.50µm
 Part No.: 0404-3091
 Temp: 150 to 280°C at 7°C/min (hold 5 min)
 Injector: 1µL split injection of antiepileptic drugs at 250°C/270°C (split ratio: 30:1)
 Detector: FID
 Carrier Gas: Helium 30cm/sec set at 150°C

Antidepressants



1. Amitriptyline
2. Trimipramine
3. oxepin (*cis*-Doxepin)
4. Imipramine
5. oxepin (*trans*-Doxepin)
6. Desipramine
7. Maprotyline
8. Clomipramine

Column: VertiBond™ 20, 30m x 0.32mm, 0.25µm
 Part No.: 0404-3053
 Temp: 235°C
 Detector: FID
 Carrier Gas: Helium at 22cm/sec

Benzodiazepines



Column: VertiBond™ 20, 30m x 0.32mm, 0.25µm
 Part No.: 0404-3053
 Temp: 260°C to 300°C at 3°C/min
 Detector: FID
 Carrier Gas: Helium at 35cm/sec

1. Medazepam
2. Lorazepam
3. diazepam
4. Temazepam
5. Flunitzepam
6. Bromazepam
7. Flurazepam
8. Clonazepam
9. Alprazolam
10. Triazolam