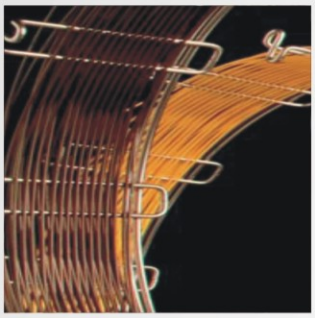
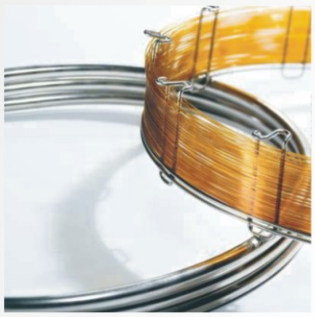
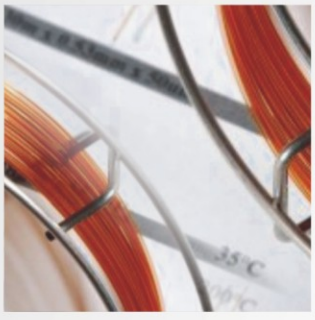




DIKMA®
A reliable partner for your lab

DikmaCap™ GC Columns



Dikma Technologies Inc.

www.dikmatech.com | www.dimaglass.com

DikmaCap™ GC Columns

About Dikma GC Products

Dikma Technologies Inc. is a leading developer and manufacturer of GC columns and accessories. Dikma GC products have gained their reputation from end users in the pharmaceutical/chemical/environmental/food fields, by offering columns of ultimate performance and maximum versatility to address challenges faced by and increasing needs of today's GC laboratories. DikmaCap™ (DM&PA) GC columns are the forefront of our unrivaled line of products.

DikmaCap™ GC Column Features

- The industry's tightest quality control specifications
- Better precision for better results and greater productivity
- Low bleed and high inertness for sensitivity and performance
- High efficiency, high throughput, and high resolution without the high costs
- Extensive GC column selection including variations in length, internal diameter, and film thickness
- Broad range of stationary phases, from low polarity to polar phase

DikmaCap™ GC Column Series:

DM	DM-1&DM-1MS; DM-5&DM-5MS; DM-35&DM-35MS; DM-17&DM-17MS; DM-1701; DM-624; DM-WAX; DM-FFAP
PA	PA-1; PA-5; PA-35; PA-17; PA-1701; PA-WAX; PA-FFAP

DikmaCap™ offers DM and PA two series GC columns with length from 15m to 60m, internal diameter from 0.25mm to 0.53mm, film thickness from 0.10μm to 7.00μm. For more information, please contact us.

For ordering information, please visit our website at www.dikmatech.com or refer to our current catalog.

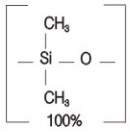
DIKMA®
A reliable partner for your lab

Dikma Techn

A Reliable Partner for Your Lab

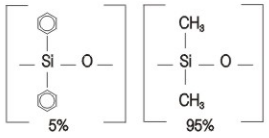
Structures, Polarities, Properties, and Applications for DikmaCap™ GC Columns

DM-1&DM-1MS / PA-1
100% Dimethyl polysiloxane



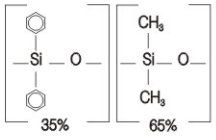
Polarity: Nonpolar
Application: Solvent, Natural gas, etc.

DM-5&DM-5MS / PA-5
5% Diphenyl 95% Dimethyl polysiloxane



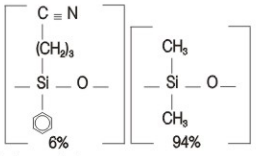
Polarity: Low polarity
Application: Aromatic hydrocarbons, Flavor

DM-35&DM-35MS / PA-35
35% Diphenyl 65% Dimethyl polysiloxane



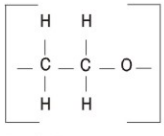
Polarity: Midpolarity
Application: Pesticides, PCBs, Herbicides

DM-624
6% Cyanopropylphenyl 94% Dimethyl polysiloxane



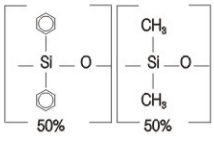
Polarity: Low polarity
Application: Residual solvents, Alcohols, Volatile organic compound

DM-WAX / PA-WAX
Polyethylene glycol



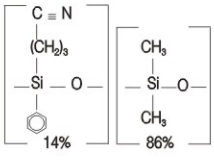
Polarity: Polar
Application: FAMEs, Flavor, Solvents, Aromatic hydrocarbons

DM-17&DM-17MS / PA-17
50% Diphenyl 50% Dimethyl polysiloxane



Polarity: Midpolarity
Application: Triglycerides, Sterols, PAEs

DM-1701 / PA-1701
14% Cyanopropylphenyl 86% Dimethyl polysiloxane

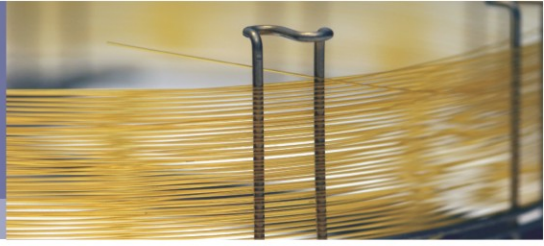


Polarity: Midpolarity
Application: Alcohols, Oxygenates, PCBs

DikmaCap™ GC Columns Cross Reference

DikmaCap™	Phase	Agilent	SGE	Restek	Supelco
DM-1 / PA-1	100% Dimethyl polysiloxane	HP-1, DB-1 CP Sil 5 CB	BP-1	Rtx-1, MXT-1	SPB-1, SP-2100
DM-1MS	100% Dimethyl polysiloxane	DB-1ms, SE-30 CP Sil 5 CB MS		Rtx-1 MS	SPB-1 Sulfur, SE-30
DM-5 / PA-5	5% Diphenyl 95% Dimethyl polysiloxane	HP-5, DB-5 CP Sil 8 CB	BP-5	Rtx-5, MXT-5	SPB-5, PTE-5, SE-54
DM-5MS	5% Diphenyl 95% Diphenyl polysilarylene	DB-5ms, DB-5ht, SE-54, CP Sil 8 CB MS		Rtx-5 MS	SAC-5, PTE-5, QTM
DM-35 / PA-35	35% Diphenyl 65% Dimethyl polysiloxane	HP-35, DB-35	BPX-35 BPX-608	Rtx-35, MXT-35	SPB-35, SPB-608
DM-35MS	35% Diphenyl 65% Dimethyl polysiloxane	DB-35MS VF-35MS	BP-35MS	Rxi-35Sil MS	–
DM-1701 / PA-1701	14% Cyanopropylphenyl 86% Dimethyl polysiloxane	HP-1701, PAS-1701 DB-1701, CP Sil 19 CB	BP-10	Rtx-1701, MXT-1701	SPB-1701
DM-17 & DM-17MS PA-17	50% Diphenyl 50% Dimethyl polysiloxane	HP-17, HP-50, CP Sil 24 CB DB-17, DB-17ht, DB-608	–	Rtx-50	SP-2250, SPB-50
DM-Wax / PA-Wax	Polyethylene glycol (PEG)	HP-INNOWax, DB-WAXetr CP Wax 52 CB	BP-20	Stabilwax, MXT-Wax	SUPELCOWAX-10
DM-FFAP / PA-FFAP	PEG for acidic compounds	HP-FFAP, DB-FFAP, CP Wax 58 CB	BP-21	Stabilwax-DA	Nukol, SP-1000
DM-624	6% Cyanopropylphenyl 94% Dimethyl polysiloxane	HP-1301, HP-624, DB-1301 DB-624, CP Select 624 CB	BP-624	Rtx-1301 Rtx-624	SPB-1301

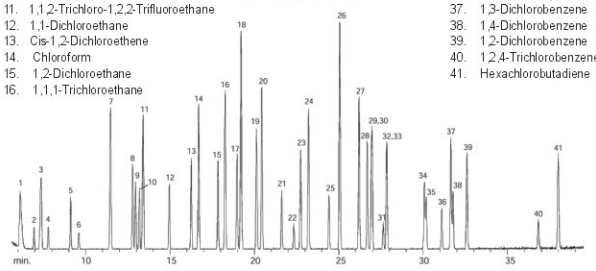
ologies Inc.



DikmaCap™ GC Columns Applications

US EPA TO-14 Compounds on DM-1

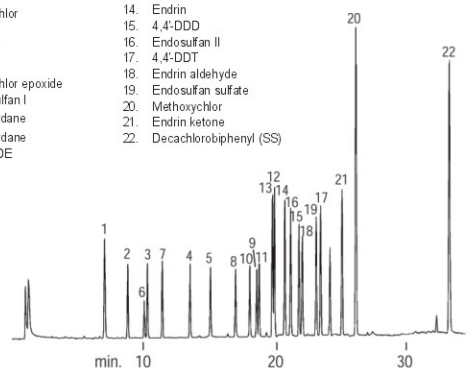
1. Dichlorodifluoromethane
2. Chloromethane
3. 1,2- Dichlorotetrafluoroethane
4. Vinyl chloride
5. Bromomethane
6. Chloroethane
7. Trichlorofluoromethane
8. 1,1-Dichloroethene
9. Methylene chloride
10. 3-Chloropropene
11. 1,1,2-Trichloro-1,2,2-Trifluoroethane
12. 1,1-Dichloroethane
13. Cis-1,2-Dichloroethene
14. Chloroform
15. 1,2-Dichloroethane
16. 1,1,1-Trichloroethane
17. Benzene
18. Carbon tetrachloride
19. 1,2-Dichloropropane
20. Trichloroethene
21. cis-1,3-Dichloropropene
22. Trans-1,3-Dichloropropene
23. 1,1,2-Trichloroethane
24. Toluene
25. 1,2-Dibromoethane
26. Tetrachloroethene
27. Chlorobenzene
28. Ethylbenzene
29. M-Xylene
30. p-Xylene
31. Styrene
32. o-Xylene
33. 1,1,2,2-Tetrachloroethane
34. 4-Methyltoluene
35. 1,3,5-Trimethylbenzene
36. 1,2,4-Trimethylbenzene
37. 1,3-Dichlorobenzene
38. 1,4-Dichlorobenzene
39. 1,2-Dichlorobenzene
40. 1,2,4-Trichlorobenzene
41. Hexachlorobutadiene



Column: DM-1, 60m×0.32mm×3.0μm (Cat# 7142). **Oven Temp:** 30℃ (hold 4min.) to 250℃ at 7℃/min (hold 15min.). **Carrier Gas:** He, 21cm/sec, 30℃. **Detector:** MS Scan. **Source.Temp.:** 250℃. **Ionization Mode:** EI. **Scan Range:** 34-280amu.

Organochlorine Pesticides by US EPA Method 8081 on DM-5

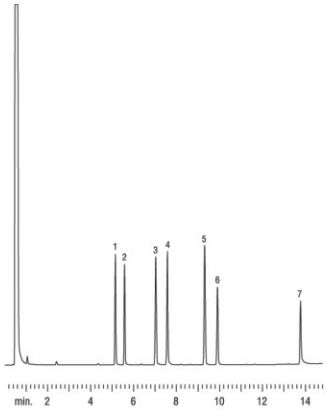
1. 2,4,5,6-Tetrachloro-m-xylene (SS)
2. α-BHC
3. γ-BHC
4. Heptachlor
5. Aldrin
6. β-BHC
7. δ-BHC
8. Heptachlor epoxide
9. Endosulfan I
10. γ-Chlordane
11. α-Chlordane
12. 4,4'-DDE
13. Dieldrin
14. Endrin
15. 4,4'-DDD
16. Endosulfan II
17. 4,4'-DDT
18. Endrin aldehyde
19. Endosulfan sulfate
20. Methoxychlor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



Column: DM-5, 30m×0.53mm×0.5μm (Cat# 7247). **Oven Temp:** 150℃ (hold 5min.) to 275℃ at 4℃/min (hold 5min.). **Carrier Gas:** He, 40cm/sec, 150℃. **Injection:** 1.0μL, direct@200℃. **Detector:** ECD@275℃.

Glycols on DM-Wax

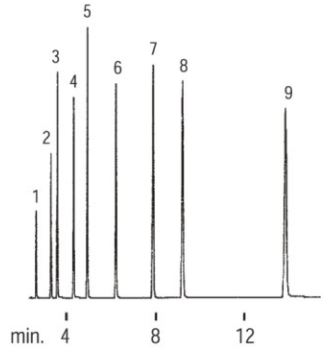
1. 1,2-Propylene glycol
2. Ethylene glycol
3. 1,3-Butylene glycol
4. 1,3-Propylene glycol
5. 1,4-Butylene glycol
6. Diethylene glycol
7. Glycerol



Column: DM-Wax, 30m×0.53mm×1.0μm (Cat# 7551). **Oven Temp:** 80℃ to 200℃ at 8℃/min (hold 10min.). **Carrier Gas:** He, constant flow. **Injection:** 1.0μL direct. **Detector:** FID@270℃.

Fatty Acids (Free) on DM-FFAP

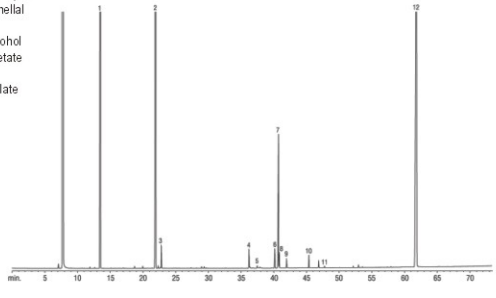
1. Acetic acid
2. Propionic acid
3. Isobutyric acid
4. n-Butyric acid
5. Isovaleric acid
6. n-Valeric acid
7. Isocaproic acid
8. Caproic acid
9. Heptanoic acid



Column: DM-FFAP, 30m×0.25mm×0.25μm (Cat# 7621). **Oven Temp:** 145℃. **Carrier Gas:** H_2, 40cm/sec. **Injection:** 1.0μL split (50:1), 250℃. **Detector:** FID@250℃.

Fragrance Materials Mix on DM-1701

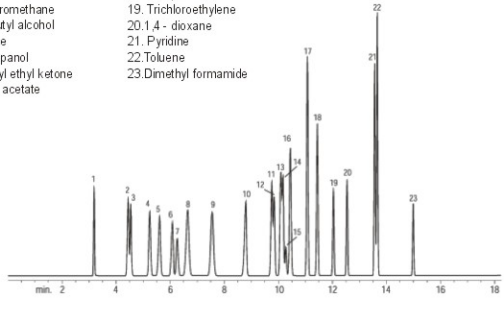
1. Ethyl butyrate
2. Limonene
3. Eucalyptol
4. Geraniol
5. Benzoic acid
6. Cinnamic aldehyde
7. Hydroxycitronellal
8. Thymol
9. Cinnamyl alcohol
10. Cinnamyl acetate
11. Vanillin
12. Benzyl salicylate



Column: DM-1701, 60m×0.25mm×0.25μm (Cat# 7322). **Oven Temp:** 50℃ to 270℃ at 3℃/min. **Carrier Gas:** He, 0.6mL/min. **Injection:** 1μL, split (40:1), 285℃. **Detector:** FID@300℃.

Residual Solvents on DM-624

1. Methanol
2. Ethanol
3. Ether
4. Acetone
5. Isopropanol
6. Acetonitrile
7. Dichloromethane
8. Tert-butyl alcohol
9. Hexane
10. n-propanol
11. Methyl ethyl ketone
12. Ethyl acetate
13. Tetrahydrofuran
14. Butanol
15. Chloroform
16. Cyclohexane
17. Benzene
18. n-heptane
19. Trichloroethylene
20. 1,4 - dioxane
21. Pyridine
22. Toluene
23. Dimethyl formamide



Column: DM-624, 30m×0.53mm×3.0μm (Cat# 7751). **Oven Temp:** 35℃ (hold 8min.) to 240℃ at 20℃/min. **Carrier Gas:** He, 25cm/sec, 35℃. **Injection:** split (30:1), 180℃. **Detector:** FID@260℃.

DikmaCap™ GC Column Application Selection Guide

DikmaCap™	Phase	Application
DM–1 & DM–1MS PA–1	100% dimethyl polysiloxane low polarity phase	Solvent impurities, PCBs, simulated distillation, drugs of abuse, gases, natural gas odorants, sulfur compounds, essential oils, hydrocarbons, semivolatiles, pesticides, oxygenates, free fatty acids.
DM–5 & DM–5MS PA–5	5% diphenyl 95% dimethyl polysiloxane low polarity phase	Drugs, solvent impurities, hydrocarbons, PCBs, essential oils, semivolatiles, alkaloids, phenols, FAMEs, halogenated compounds, pesticides, herbicides, residual solvents.
DM–35 & DM–35MS PA–35	35% diphenyl 65% dimethyl polysiloxane midpolarity phase	Aromatic compounds, organochlorine pesticides, PCBs, herbicides, sterols, pharmaceuticals, rosin acids, phthalate esters.
DM–17 & DM–17MS PA–17	50% diphenyl 50% dimethyl polysiloxane midpolarity phase	Herbicides, pesticides, rosin acids, phthalate esters, triglycerides, sterols, antidepressants.
DM–1701 / PA–1701	14% cyanopropylphenyl 86% dimethyl polysiloxane midpolarity phase	Alcohols, oxygenates, PCBs, organochlorine pesticides, organophosphorus pesticides, herbicides, base/neutrals and acids.
DM–624	6% cyanopropylphenyl 94% dimethyl polysiloxane low to midpolarity phase	Residual solvents, alcohols, oxygenates, volatile organic compounds, volatile organic pollutants.
DM–WAX / PA–WAX	polyethylene glycol (PEG) polar phase	Free organic acids, solvents, essential oils, alcohols, aldehydes, aromatic hydrocarbons, esters, FAMEs, flavor compounds, halogenated components, ketones, nitro compounds, PAHs, phenols, sulfur compounds.
DM–FFAP / PA–FFAP	PEG for acidic compounds polar phase	Organic acids, solvents, alcohols, aldehydes, ketones, acrylates, some inorganic acids, esters, acidic compounds, fatty acids, flavor compounds.

DikmaCap™ GC Column Method Selection Guide

DikmaCap™	USP Methods	EPA Methods	ASTM Methods
DM–1 & DM–1MS PA–1	G1,G2,G9,G38	504.1, 505, 8141A	D 1946, D 2268, D 2426, D 2887, D 2998, D 2999, D 3054, D 3168, D 3328, D 3432, D 3447, D 3452, D 3465, D 3524, D 3606, D 3710, D 3876, D 4275, D 4367, D 4420, D 5134, D 5580
DM–5 & DM–5MS PA–5	G27,G36,G41	513, 515.2, 525, 552.2, 604, 606, 607, 609, 610, 611, 612, 613, 615, 619, 622, 625, 1625, 1653, 8015B, 8041, 8061A, 8082, 8091, 8100, 8121, 8141A, 8151A, 8270C, 8280A	D 2580, D 3086, D 3304, D 3534, D 4059
DM–35 & DM–35MS PA–35	G32,G42	551.1, 552.2, 607, 615, 622, 8082, 8141A,	
DM–17 & DM–17MS PA–17	G3,G17	619	
DM–1701 / PA–1701	G46	515.2, 552.2, 607, 619, 622, 8091, 8121, 8151A	
DM–624	G43	501.3, 502.2, 503.1, 504.1, 524.2 601, 602, 603, 624, 1624, 8010B, 8015B, 8021B, 8030A, 8260B	D 2908
DM–WAX / PA–WAX	G14,G15,G16,G20,G39	8121	D 2306, D 2600, D 2804, D 2908, D 3009, D 3271, D 3329, D 3687, D 3760, D 3797, D 3798, D 5060, D 5135–95, E 0202, E1100
DM–FFAP / PA–FFAP	G25,G35		D 3725, D 3962, D 4735, D 4768, D 5060

DiKMA®
A reliable partner for your lab

About Dikma

Dikma Technologies Inc., established in 1993, is a global technology leader committed to developing novel separation and purification solutions for life sciences and related industries. Our core technology portfolio includes products for liquid chromatography, gas chromatography, sample preparation, and bulk purification chromatographic media. We also provide related chromatography accessories.

Quality

Dikma Technologies Inc. is an ISO 9001:2000 Standard Quality Assessed Company to ensure the quality and reliability of our products and services. We are dedicated to the highest standards of production, quality assurance and quality control.

Value

Dikma Technologies Inc. is committed to bringing maximum value to its customers.

DiKMA®
A reliable partner for your lab

MZ ANALYSENTECHNIK
AUTHORIZED DISTRIBUTOR

MZ-Analysentechnik GmbH
Barcelona-Allee 17 • D-55129 Mainz
Tel +49 6131 880 96-0
Fax +49 6131 880 96-20
e-mail: info@mz-at.de
www.mz-at.de

USA
11 Orchard Road, Suite 106
Lake Forest, CA 92630, USA
Tel: 949-716-5810
Fax: 949-716-5811
Toll-Free: 1-877-328-8348
Email: sale@dikmatech.com

Canada
40 Vogell Road, Unit 57
Richmond Hill, ON L4B 3N6, Canada
Tel: 905-737-8066
Fax: 905-770-0181
Toll-Free: 1-866-889-9072
Email: sales@dimaglass.com

EWC ANAB ACCREDITED ISO9001 020102

www.dikmatech.com | www.dimaglass.com

Literature No. 3021