

Packed Columns

Packed columns are traditional tools used for separation but are still prevailing in the industry. They are used in many gas chromatograph applications such as petroleum industries, food, chemicals, and others. GS-Tek offers packed columns in stainless steel tubing format, with complete well-known packing materials. GS-Tek also offers micropack columns for separation improvement and custom-made columns.

HELPFUL TIPS:

- Most packed columns are not preconditioned. End user should precondition column at manufacturers specified maximum temperature prior to use
- Packed columns historically have different coil and connection configurations from various Gas Chromatograph brand.
- Packed columns are not manufacture-tested. Batch variation may exist

To Order

Almost all packed columns are custom-made. A complete description of packed column configuration should be used to place an order.

Packed Column Configuration Description

Tubing material	Length, foot or meter	OD inch/mm	Packing material	Instrument configuration	Connection
Stainless steel	Customer Specified	1/16 inch	Solid support	General	Brass nut fitting (standard)
Glass	Customer Specified	1/8 inch	Coating liquid phase and loading amount (if any) Support Mesh	HP/Agilent	Weldment VCR
Custom-specified	Customer Specified	1/4 inch		Varian P-E P-E auto system Shimadzu	

For any other special custom-made configuration, please contact GS-Tek by email: info@gs-tek.com or phone: (302) 533-5646.

TIP:

- 1) Thoroughly condition packed columns prior to use
- 2) Specify the loading amount of stationary phase (w/w) when ordering.

Popular Packed Column Ordering Info

Stainless Steel (SS) Metal Packed Columns	
P/N	Description
9533-600	6' X 1/8" SS 10% Apiezon L Chrom W-HP 80/100
9533-602	6' X 1/8" SS 10% CWAX 400 Chrom W-HP 80/100
9533-604	6' X 1/8" SS 10% CWAX 1500 Chrom W-HP 80/100
9533-606	6' X 1/8" SS 10% CWAX 20M Chrom W-HP 80/100
9533-607	6' X 1/8" SS 10% CWAX 20M Chrom W-AW 80/100
9533-608	6' X 1/8" SS 10% CWAX 20M-TPA Chrom W-AW 80/100
9533-610	6' X 1/8" SS Chromosorb 101 80/100
9533-612	6' X 1/8" SS Chromosorb 102 80/100
9533-614	6' X 1/8" SS Chromosorb 103 80/100
9533-618	6' X 1/8" SS Chromosorb 105 80/100
9533-620	6' X 1/8" SS Chromosorb 106 80/100
9533-622	6' X 1/8" SS Chromosorb 107 80/100
9533-624	6' X 1/8" SS Chromosorb 108 80/100

Stainless Steel (SS) Metal Packed Columns

9533-626	6' X 1/8" SS 10% DEGS Chrom W-AW 80/100
9533-628	6' X 1/8" SS 15% DEGS Chrom W-AW 80/100
9533-630	6' X 1/8" SS 5% FFAP Chrom W-HP 80/100
9533-632	6' X 1/8" SS 5% FFAP Chrom W-AW 80/100
9533-634	6' X 1/8" SS 3% OV-1 Chrom W-HP 80/100
9533-636	6' X 1/8" SS 3% OV-1 Chrom W-HP 100/120
9533-638	6' X 1/8" SS 10% OV-1 Chrom W-HP 80/100
9533-640	6' X 1/8" SS 3% OV-17 Chrom W-HP 80/100
9533-642	6' X 1/8" SS 3% OV-17 Chrom W-HP 100/120
9533-646	6' X 1/8" SS 10% OV-17 Chrom W-HP 80/100
9533-648	6' X 1/8" SS 10% OV-17 Chrom W-HP 100/120
9533-650	6' X 1/8" SS 3% OV-101 Chrom W-HP 80/100
9533-652	6' X 1/8" SS 3% OV-101 Chrom W-HP 100/120
9533-654	6' X 1/8" SS 10% OV-101 Chrom W-HP 80/100
9533-656	6' X 1/8" SS 3% OV-210 Chrom W-HP 80/100
9533-658	6' X 1/8" SS 3% OV-225 Chrom W-HP 100/120
9533-659	6' X 1/8" SS 3% OV-225 Chrom W-HP 80/100
9533-660	6' X 1/8" SS 3% OV-275 Chrom W-AW 80/100
9533-661	6' X 1/8" SS 3% SE-30GC Chrom W-HP 80/100
9533-680	6' X 1/8" SS 1.5% OV-17 + 1.95% QF-1 Chrom W-HP 80/100
9533-682	6' X 1/8" SS 4% SE-30GC + 6% OV-210 Chrom W-HP 80/100
9533-684	6' X 1/8" SS 10% OV-225 Chrom W-HP 80/100
9533-686	6' X 1/8" SS 10% TCEP on Chromosorb PAW, 80/100

Molecular Sieves

P/N	Description
9533-690	6' X 1/8" SS Molesieve, 5A 80/100
9533-691	3' X 1/8" SS Molesieve, 5A 80/100
9533-692	12' X 1/8" SS Molesieve, 5A 80/100
9533-696	6' X 1/8" SS Molesieve, 13X 80/100
9533-697	3' X 1/8" SS Molesieve, 13X 80/100
9533-698	12' X 1/8" SS Molesieve, 13X 80/100

Polymer Base

P/N	Description
9533-662	6' X 1/8" SS Porapak Q 80/100
9533-664	6' X 1/8" SS Porapak P 80/100
9533-666	6' X 1/8" SS Porapak R 80/100
9533-668	6' X 1/8" SS Porapak S 80/100
9533-670	6' X 1/8" SS Porapak T 80/100
9533-672	6' X 1/8" SS Porapak T 100/120
9533-674	6' X 1/8" SS Porapak N 80/100
9533-676	6' X 1/8" SS Porapak QS 80/100
9533-678	6' X 1/8" SS Porapak PS 80/100

TIP: Check the condition of liners, ferrules and septa on a regular basis to ensure optimum performance.

Packing Media

Solid Supports

Name	Description	Applications
Chromosorb PAW	C22 Firebrick acid washed mesh 80/100	Hydrocarbons
Chromosorb PAW DMCS	C22 Firebrick acid washed, treated with dimethyl-dichlorosilane mesh 80/100	Hydrocarbons/oxygenates
Chromosorb WAW	Diatomite support, acid washed, mesh 80/100	Oxygenates
Chromosorb WHP	Diatomite support, acid washed, silanized mesh 80/100	Steroids, bile acids, alkaloids, drugs

Stationary Phases

Name	Description	Temperature Limit, (°C)
Squalane	Squalane	20/100
OV-1, SE-30	100% methyl silicone gum	50/300
OV-5, SE- 52/54	5% phenyl 95% methyl silicone gum	50/300
UCW-982	100% methyl silicone gum, 1% vinyl	0/300
OV-101, SP-2100, DC-200	100% methyl silicone fluid	0/250
Dexsil 300, PS-300	Carbonate methyl silicone	50/450
OV-17, SP2250	50% methyl 50% phenyl silicone	0/375
OV-25	25% methyl 75% phenyl silicone	0/350
OV-210, SP2401	50% trifluoropropyl 50% methyl silicone	0/250
OV-225, XE-60	25% cyanopropyl silicone	0/265
Carbowax 20M	Polyethylene glycol	60/225
Carbowax 20M, TPA	Polyethylene glycol, acid modified	60/250
OV-351, SP-1000, FFAP-2	carbowax, acid modified	50/250
DEGS	diethylene glycol succinate	40/200
EGS	ethylene glycol succinate	20/200
Silar 10C, SP2340	100% cyanopropyl silicone	0/250
TCEP	1,2,3-tris(2-cyanoethoxy)propane	0/125

Solid Adsorbents

Inorganic

Name	Description	Temperature Limit, (°C)
Molecular Sieve 5A	60/80, 80/100	350
Molecular Sieve 13X	60/80, 80/100	350
Tenax	35/60, 60/80, 80/100	350
Activated Charcoal	40/60	350
Activated Alumina	40/60, 80/100, 100/120	250
Silica Gel	40/60, 80/100, 100/120	200

Porous Polymers

Chromosorb™ "Century Series"

Name	Description	Temperature Limit, (°C)
Chromosorb 101	60/80, 80/100, 100/120	275
Chromosorb 102	60/80, 80/100, 100/120	250
Chromosorb 103	60/80, 80/100, 100/120	275
Chromosorb 105	60/80, 80/100, 100/120	250
Chromosorb 106	60/80, 80/100, 100/120	225
Chromosorb 107	60/80, 80/100, 100/120	225
Chromosorb 108	60/80, 80/100, 100/120	225
Porapak®		
Porapak-N	80/100	190
Porapak-P	80/100	250
Porapak-Q	80/100	250

Name	Description	Temperature Limit, (°C)
Porapak-QS	80/100	250
Porapak-R	80/100	250
Porapak-S	80/100	250
Porapak-T	80/100	190
HayeSep®		
HayeSep A	80/100	165
HayeSep B	80/100	195
HayeSep C	80/100	250
HayeSep D	80/100	290
HayeSep N	80/100	165
HayeSep P	80/100	250
HayeSep Q	80/100	275
HayeSep R	80/100	250
HayeSep S	80/100	250
HayeSep T	80/100	165
Ohio Valley Specialty Chemical Porasil™		
equivalent to durapak, poracil		
Carbowax 400/Porous-Sil C	80/100	200
N-Octane / Porous-Sil C	80/100	175
OPN/Porous-Sil C	80/100	150
C-18/Porous-Sil C	80/100	200
Phenyl Isocyanate / Porous-Sil C	80/100	60
Porous-Sil B 80/100	80/100	400
Porous-Sil C	80/100	400
Tenax	35/60, 60/80,80/100	350

Stationary Phase Cross-References

GS-Tek	Phase Composition	Restek	Agilent	Supelco
GsBP-1 GsBP-1MS	100% dimethyl polysiloxane	Rxi-1ms, Rtx-1, Rtx-1MS	HP-1, HP-101, HP-1MS, Ultra-1, DB-1, DB-1MS, DB-1ht, SE-30	Equity-1, SPB-1, SP-2100, SPB-1 Sulfur, SE-30, MDN-1
GsBP-5 GsBP-5MS	95% dimethyl/ 5% diphenyl polysiloxane	Rxi-5ms, Rtx-5, Rtx-5MS	HP-5, HP-5MS, PAS-5, DB-5, DB-5.625, DB-5ht, SE-54	Equity-5, SPB-5, PTE-5, SE-54, SAC-5, PTE-5 QTM, MDN-5
GsBP-XLB	Proprietary phase	Rtx-XLB	DB-XLB	MDN-12
GsBP-35MS	65% dimethyl/ 35% diphenyl polysiloxane	Rtx-35, Rtx-35MS	HP-35, HP-35MS, DB-35	SPB-35, SPB-608, MDN-35
GsBP-50+MS	100% methyl phenyl polysiloxane	Rxi-50	HP-17, HP-50+	SPB-17
GsBP-1301	8% cyanopropylphenol/ 92% dimethyl polysiloxane	Rtx-1301	DB-1301	SPB-1301
GsBP-1701	14% cyanopropylphenol/ 86% dimethyl polysiloxane	Rtx-1701	HP-1701, PAS-1701, DB-1701	SPB-1701
GsBP-624, GsBP-VMS	Proprietary phase	Rtx-VRX Rtx-624, Rtx-VMS	HP-624, HP-VOC, DB-624, DB-502.2, DB-VRX	SPB-VOCCOL, SPB-624
GsBP-Inowax	Polyethylene glycol (PEG)	Stabilwax, Rtx-WAX	HP-20M, Inno Wax, DB-Wax, Carbowax 20M, HP Wax, DB-Waxetr	Supelcowax-10, Carbowax PEG 20M
GsBP-FFAP	Acid modified PEG	Stabilwax-DA	HP-FFAP, DB-FFAP, OV-351	Nukol, SP-1000
GsBP-PLOT Al2O3/ "KCl", "S", "M"	Aluminum oxide, modified with KCL, Na2SO4 or Na2MoO4	Rtx-Alumina	HP-PLOT Al2O3 "KCl", "S", "M"	Alumina Sulfate PLOT, Alumina Chloride PLOT
GsBP-PLOT MoleSieves 5A	Molecular Sieve zeolite, 5A	Rt-Msieve 5A	GS-Molesieve, HP-PLOT/Molesieve	Molesieve 5A
GsBP-PLOT Q	Crosslinked divinylbenzene polymer	Rt-QPLOT Rt-QSPLOT	HP-PLOT Q, GS-Q	Supel-Q PLOT
GsBP-PLOT U	Crosslinked divinylbenzene ethylene glycol dimethacrylate copolymer	Rt-UPLLOT	HP-PLOT U	
GsBP-PLOT GasPro	Modified porous silica layer		GS-GasPro	
GsBP- PLOT Carbon	Activated Carbon		GS-Carbon PLOT	Carboxen-1006 PLOT