

<b>Applications</b>	<b>HP Phases</b>	<b>Composition</b>	<b>Polarity</b>	<b>Temperature Range a, b, c (isothermal/programmed)</b>
Amines, hydrocarbons, pesticides, PCBs, phenols, sulfur compounds, flavors and fragrances, phenols	HP-1 OR DB-1 HP-1MS	100% dimethyl-polysiloxane	Nonpolar	a: -60 to 325/350 b: -60 to 300/320 c: -60 to 260/280
Alkaloids, drugs, FAMES, halcis/trans FAMESogenated compounds, semivolatiles, pesticides	HP-5 HP-5MS HP-5 trace analysis (TA)	5% diphenyl- and 95% dimethyl-polysiloxane	Nonpolar	a: -60 to 325/350 b: -60 to 300/320 c: -60 to 260/280
Aroclors, alcohols, pesticides, VOAs	HP-1301	6% cyanopropyl-phenyl methyl-polysiloxane	Mid-polar	a: -20 to 280/300 b: -20 to 260/280
Aroclors, amines, pesticides, pharmaceuticals	HP-35	35% diphenyl polysiloxane	Mid-polar	HP-35: a: 40 to 300/320 b: 40 to 280/300
	HP-35MS	35% diphenyl, 65% dimethyl arylene siloxane copolymer		HP-35MS: a: 40 to 340/360 b: 40 to 320/340
Pesticides, herbicides, TMS sugars, Aroclors	HP-1701	14% cyanopropyl-phenyl methyl-polysiloxane	Mid-polar	a: -20 to 280/300 b: -20 to 260/280
Drugs, glycols, pesticides, steroids	HP-50+ DB-17 DB-17MS	50% phenyl 50% methyl-polysiloxan	Mid-polar	a: 40 to 280/300 b: 40 to 260/280
FAMES, alditol acetates neutral sterols	DB-225	50% cyanopropyl-phenyl methyl-polysiloxane	Polar	a: 40 to 220/240 b: 40 to 200/220
Aldehydes, organochlorine or organophosphorous herbicides and pesticides	DB-210	50% Trifluoropropyl-50% dimethyl siloxane	Polar	a: 45 to 240/260 b: 45 to 220/240
Acids, alcohols, aldehydes, acrylates, ketones, nitriles	HP-FFAP DB-FFAP	Polyethylene glycol-TPA modified	Polar	a: 60 to 240/250 b: 60 to 230/240

<b>Applications</b>	<b>HP Phases</b>	<b>Composition</b>	<b>Polarity</b>	<b>Temperature Range a, b, c (isothermal/programmed)</b>
Alcohols, free acids, aromatics, essential oils	HP-INNO-Wax	Polyethylene glycol	Polar	a: 40 to 260/270 b: 40 to 230/250
Solvents, glycols, alcohols	DB-Wax	Polyethylene glycol	Polar	a: 20 to 250/260 b: 20 to 230/240
Amines, basic compounds	DB-CAM	Polyethylene glycol-base modified	Polar	a: 40 to 240/260 b: 40 to 220/240
cis/trans FAMES	DB-23 cis/trans FAME	Cyanopropyl methyl siloxane	Polar	a: 40 to 250/260 b: 40 to 230/240
C1-C6 hydrocarbons in natural gas, refinery gas, fuel gas, synthetic gas, dienes	HP-PLOT Al <sub>2</sub> O <sub>3</sub> "S" HP-PLOT Al <sub>2</sub> O <sub>3</sub> "M" HP-PLOT Al <sub>2</sub> O <sub>3</sub> "KCl" HP-PLOT MoleSieve HP-PLOT-Q	Aluminum oxide with differing deactivations	-	to 200
Permanent gas, noble gases	HP-PLOT MoleSieve	Molecular Sieve 5Å	-	to 350
All C1-C3 isomers, C4-C12, natural gas, refinery gas	HP-PLOT-Q	Styrene-divinylbenzene	-	a and b: to 270/290
<b>Speciality Phases</b>				
Purgeable organics	HP-VOC		Intermediate	-60 to 280
Purgeable organics	DB-624		Intermediate	-20 to 260/270
Chlorinated pesticides	HP-608		Intermediate	30 to 260/280
Pesticides, PCBs, herbicides 1701	DB-1701P		Intermediate	-20 to 260/280
Pesticides, PCBs, herbicides	HP-PAS 5		Intermediate	-60 to 325/350
Enantiomers	HP-Chiral -HP-Chiral - Beta-cyclodextrin		Intermediate	30 to 240/250
<b>Petroleum Analysis</b>				

<b>Applications</b>	<b>HP Phases</b>	<b>Composition</b>	<b>Polarity</b>	<b>Temperature Range a, b, c (isothermal/ programmed)</b>
MTBE, ASTM 5441	HP-1 OR DB-1	Polydimethylsiloxane	Nonpolar	-60 to 325/350
Ethanol, ASTM D5501	HP-1 OR DB-1	Polydimethylsiloxane	Nonpolar	-60 to 325/350
Aromatics, ASTM D5769	HP-1 OR DB-1	Polydimethylsiloxane	Nonpolar	-60 to 325/350
Oxygenates, ASTM 5599	HP-1 OR DB-1	Polydimethylsiloxane	Nonpolar	-60 to 325/350
Naphtha, ASTM D5134	HP-PONA		Nonpolar	-60 to 325
Styrene, ASTM D5135	HP-INNO-Wax	INNOphase bondable polyethylene glycol	Polar	40 to 260/270
p-Xylene, ASTM D3798	HP-INNO-Wax	INNOphase bondable polyethylene glycol	Polar	40 to 260/270
Ethylbenzene, ASTM D5060	HP-INNO-Wax	INNOphase bondable polyethylene glycol	Polar	40 to 260/270
Simulated Distillation, ASTM D3710, D2887, extended 2887	HP-1 OR DB-1	Polydimethylsiloxane	Nonpolar	-60 to 325/350
Classical (non-bonded) Phases				
Amino acid derivatives, essential oils	HP-101	Polydimethylsiloxane	Nonpolar	0 to 280
Drugs, glycols, pesticides, steroids	DB-17	(50%)-Phenyl and (50%)-methylsiloxane	Nonpolar	25 to 260/280
Alcohols, free acids, essential oils, ethers, glycols, solvents	HP-20M	Polyethylene glycol	Polar	60 to 220