More Chemistries, More Choices For Solving Your Toughest Separation Challenges

The InfinityLab Poroshell 120 family has grown to include 3 particle sizes and 18 chemistries—including new phases for chiral and HILIC separations. So, you can efficiently separate the widest variety of compounds.

Agilent
Trusted Answers

InfinityLab Poroshell 120	Chemistry	Particle Sizes	Pore Size	Temperature Limit	pH Range	Endcapped	Carbon Load	Surface Area	USP Designation	Benefits and Applications
EC-C18		1.9 µm, 2.7 µm, 4 µm	120 Å	60 °C	2.0–8.0	Yes	10%	130 m2/g	L1	General purpose Excellent peak shape and efficiency for acids, bases, and neutrals
EC-C8		1.9 µm, 2.7 µm, 4 µm	120 Å	60 °C	2.0–8.0	Yes	5%	130 m2/g	L7	General purpose Lower retention of hydrophobic analytes vs. C18
SB-C18		2.7 µm	120 Å	90 °C	1.0–8.0	No	9%	130 m2/g	L1	Low pH Excellent stability and peak shape in highly acidic conditions
SB-C8		2.7 µm	120 Å	80 °C	1.0–8.0	No	5.5%	130 m2/g	L7	Low pH Excellent stability at low pH Lower retention of hydrophobic analytes vs. C18
HPH-C18		1.9 µm, 2.7 µm, 4 µm	100 Å	60 °C	3.0–11.0	Yes	Proprietary	95 m2/g	L1	High pH capable Robust performance and long lifetimes Improved retention, resolution, and peak shape of basic compounds
HPH-C8		2.7 µm, 4 µm	100 Å	60 °C	3.0–11.0	Yes	Proprietary	95 m2/g	L7	High pH capable Robust performance and long lifetimes Lower retention of hydrophobic analytes vs. C18
Bonus-RP		2.7 µm	120 Å	60 °C	2.0–8.0	Yes	9.5%	130 m2/g	L60	Alternate selectivity to C18 Improved peak shape for basic compounds, stable in 100% aqueous conditions
PFP		1.9 µm, 2.7 µm, 4 µm	120 Å	60 °C	2.0–8.0	Yes	5.1%	130 m2/g	L43	Alternate selectivity Excellent peak shape for polar and nonpolar analytes Unique selectivity for aromatic and halogenated compounds
Phenyl-Hexyl		1.9 µm, 2.7 µm, 4 µm	120 Å	60 °C	2.0–8.0	Yes	9%	130 m2/g	L11	Alternate selectivity with aromatic groups Highly nonpolar bonded phase takes advantage of pi-pi interactions
SB-Aq		2.7 µm	120 Å	80 °C	1.0–8.0	No	Proprietary	130 m2/g	L96	Alternate selectivity Excellent peak shape and retention of polar compounds using reversed-phase LC Exceptional stability under high-aqueous conditions, including 100% water
EC-CN		2.7 µm	120 Å	60 °C	2.0–8.0	Yes	3.5%	130 m2/g	L10	Alternate selectivity Use in reversed-phase for alternate selectivity of polar and mid-polar compounds Use in normal phase for excellent peak shape and retention of nonpolar analytes
HILIC-Z		2.7 µm	100 Å	80 °C	3.0–11.0	No	Proprietary	95 m2/g	L114	Polar analytes Excellent retention of highly polar or charged compounds by HILIC Rugged performance at high pH or high temperature
HILIC		1.9 µm, 2.7 µm, 4 µm	120 Å	60 °C	0.0–8.0	No	NA	130 m2/g	L3	Polar analytes Excellent retention of polar compounds by HILIC
HILIC-OH5		2.7 µm	120 Å	45 °C	1.0–7.0	Proprietary	Proprietary	130 m2/g	L86	Polar analytes Fructan bonded phase offers alternate selectivity to other HILIC phases
Chiral-V		2.7 µm	120 Å	45 °C	2.5–7.0	Proprietary	Proprietary	130 m2/g	L88	Chiral separations Amines, profens, and complex basic and neutral compounds Reversed-phase, polar ionic normal phase, or polar organic modes
Chiral-T		2.7 µm	120 Å	45 °C	2.5–7.0	Proprietary	Proprietary	130 m2/g	L63	Chiral separations Beta blockers, hydroxyl acids, amino acids, profens, benzodiazepines, and hydantoins Reversed-phase, polar ionic normal phase, or polar organic modes
Chiral-CD		2.7 µm	120 Å	45 °C	3.0–7.0	Proprietary	Proprietary	130 m2/g	L45	Chiral separations Stimulants, fungicides, and protected amino acids Reversed phase or polar organic modes
Chiral-CF		2.7 µm	120 Å	45 °C	3.0–7.0	Proprietary	Proprietary	130 m2/g	NA	Chiral separations Primary amines Polar organic or normal phase modes

Note: HILIC-OH5, and all four Chiral phases have a pressure limit of 400 bar.

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Which particle is best for my method?

UHPLC

1.9 µm: Highest UHPLC performance
- Maximum pressure: 1300 bar
- Ideal for: Agilent 1290 Infinity II LC

HPLC or UHPLC

2.7 µm: UHPLC performance at lower pressures
- Maximum pressure: 600 bar (unless otherwise noted)
- Ideal for: Agilent 1260 Infinity II LC or Agilent 1260 Infinity II Prime LC

HPLC

4 µm: Improved HPLC performance
- Maximum pressure: 600 bar
- Ideal for: Agilent 1220 Infinity II LC

1 bar = 14.5 PSI

psi	1450	2900	4350	5800	7250	8700	10,150	11,600	13,050	14,500	15,950	17,400	18,850	20,300
bar	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400

What column ID and length should I choose?

Format	Comment
Column ID	4.6 mm for legacy methods 3.0 mm for lower solvent use than 4.6 mm 2.1 mm for lowest solvent use and MS applications
Column length	Shorter 30 to 100 mm for fastest separations Longer 150 to 250 mm for increased resolution

Still using a legacy method?

InfinityLab Poroshell chemistries are aligned with traditional ZORBAX chemistries—making it easy to transfer your methods from fully porous to superficially porous particle columns.

InfinityLab Poroshell Chemistry	Aligned Chemistry
InfinityLab Poroshell 120 EC-C18	ZORBAX Eclipse Plus C18
InfinityLab Poroshell 120 EC-C8	ZORBAX Eclipse Plus EC-C8
InfinityLab Poroshell 120 Phenyl-Hexyl	ZORBAX Eclipse Plus Phenyl-Hexyl
InfinityLab Poroshell 120 SB-C18	ZORBAX StableBond SB-C18
InfinityLab Poroshell 120 SB-C8	ZORBAX StableBond SB-C8
InfinityLab Poroshell 120 Bonus-RP	ZORBAX Bonus-RP
InfinityLab Poroshell 120 SB-Aq	ZORBAX StableBond SB-Aq
InfinityLab Poroshell 120 EC-CN	ZORBAX Eclipse XDB-CN
InfinityLab Poroshell 120 HILIC	ZORBAX HILIC Plus

Agilent InfinityLab is an optimized portfolio of LC instruments, columns, and supplies that work together seamlessly for maximum efficiency and performance—regardless of application area. More information at:

www.agilent.com/chem/infinitylab

For more information about InfinityLab Poroshell 120 Columns, go to **www.agilent.com/chem/poroshell-120**