

# More Chemistries, More Choices For Solving Your Toughest Separation Challenges

The InfinityLab Poroshell 120 family has grown to include 3 particle sizes and 19 chemistries, so you can efficiently separate the widest variety of compounds.



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 m <sup>2</sup> /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 m <sup>2</sup> /g	L7	General purpose Lower retention of hydrophobic analytes vs. C18
SB-C18		1.9 μm, 2.7 μm, 4 μm	120 Å	90 °C	1.0–8.0	No	9%	130 m <sup>2</sup> /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 m <sup>2</sup> /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	2.0–11.0	Yes	Proprietary	95 m <sup>2</sup> /g	L1	High pH capable Robust performance and long lifetimes High pH capability designed for longest lifetime, especially under high pH conditions Similar selectivity compared to EC-C18
HPH-C8		2.7 μm, 4 μm	100 Å	60 °C	2.0–11.0	Yes	Proprietary	95 m <sup>2</sup> /g	L7	High pH capable Robust performance and long lifetimes Lower retention of hydrophobic analytes vs. C18
CS-C18		2.7 μm	100 Å	90 °C	1.0–11.0	Yes	Proprietary	95 m <sup>2</sup> /g	L1	Alternate selectivity Improved peak shape and sample capacity for basic compounds with low ionic strength mobile phases High pH capable
Bonus-RP		2.7 μm	120 Å	60 °C	2.0–8.0	Yes	9.5%	130 m <sup>2</sup> /g	L60	Alternate selectivity to C18 Unique selectivity due to a polar embedded group, stable in 100% aqueous
PFP		1.9 μm, 2.7 μm, 4 μm	120 Å	60 °C	2.0–8.0	Yes	5.1%	130 m <sup>2</sup> /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 m <sup>2</sup> /g	L11	Alternate selectivity with aromatic groups Highly nonpolar bonded phase takes advantage of pi-pi interactions
SB-Aq		1.9 μm, 2.7 μm, 4 μm	120 Å	80 °C	1.0–8.0	No	Proprietary	130 m <sup>2</sup> /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 m <sup>2</sup> /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		1.9 μm, 2.7 μm, 4 μm	100 Å	80 °C	2.0–12.0	No	Proprietary	95 m <sup>2</sup> /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	1.0–8.0	No	NA	130 m <sup>2</sup> /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 m <sup>2</sup> /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 m <sup>2</sup> /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 m <sup>2</sup> /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 m <sup>2</sup> /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 m <sup>2</sup> /g	NA	Chiral separations Primary amines Polar organic or normal phase modes

## Which particle is best for my method?

UHPLC		<b>1.9 μm: Highest UHPLC performance</b> – Maximum pressure: 1300 bar – Ideal for: Agilent 1290 Infinity II LC
HPLC or UHPLC		<b>2.7 μm: UHPLC performance at lower pressures</b> – Maximum pressure: 600 bar (unless otherwise noted) – Ideal for: Agilent 1260 Infinity II LC or Agilent 1260 Infinity II Prime LC
HPLC		<b>4 μm: Improved HPLC performance</b> – 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

## What if my methods were developed on fully porous columns?

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](http://www.agilent.com/chem/infinitylab)

For more information about InfinityLab Poroshell 120 Columns, go to [www.agilent.com/chem/poroshell-120](http://www.agilent.com/chem/poroshell-120)

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