A proven and reliable portfolio of totally porous HPLC columns

The Agilent ZORBAX family offers all advantages of totally porous particle columns such as increased retention, loadability and resistance to sample solvents. Easily scale your methods all the way from UHPLC to preparative LC.





Agilent ZORBAX	Chemistry	Particle Sizes	Pore Size (Å)	Temperature Limit	pH Range	Endcapped	Carbon Load (%)	Surface Area	USP Designation	Benefits and Applications
Eclipse Plus C18	CH ₃ -0—Si CH ₃	1.8, 3.5, 5	95	60 °C	2-9	Double	9	160 m²/g	L1	General purpose Starting Point for LC method development
Eclipse Plus C8	CH ₃ -0-Si -CH ₃	1.8, 3.5, 5	95	60 °C	2-9	Double	7	160 m²/g	L7	General purpose Lower retention of hydrophobic analytes vs. C18
Eclipse Plus Phenyl-Hexyl	CH ₃ CH ₃	1.8, 3.5, 5	95	60 °C	2-8	Double	9	160 m²/g	L11	Alternative selectivity for aromatic compounds Enhanced pi-pi interactions when using methanol
Eclipse Plus PAH	Polymeric C18	1.8, 3.5, 5	95	60 °C	2-9	Double	14	160 m²/g	L1	Application-specific Designed for the separation of PAHs in LC
Eclipse XDB C18	CH ₃ -0-Si -CH ₃	1.8, 3.5, 5	80	60 °C	2-9	Double	10	180 m²/g	L1	General purpose, higher carbon load Higher hydrophobicity with alternative selectivity for lipophilic analytes
Eclipse XDB C8	CH₃ -0—Si	1.8 (RRHT) 3.5, 5, 7	80	60 °C	2-9	Double	7.6	180 m²/g	L7	General purpose, higher carbon load Higher hydrophobicity with alternative selectivity for lipophilic analytes but reduced retention vs. XDB-C18
Eclipse XDB Phenyl	CH ₃ -0-Si -CH ₃	3.5, 5	80	60 °C	2-9	Double	7.2	180 m²/g	L11	Alternative selectivity for aromatic compounds Enhanced pi-pi interactions when using methanol
Eclipse XDB CN	CH_3 -0 $-Si$ $-CH_2$ $-CN$ CH_3	3.5, 5	80	60 °C	2-9	Double	4.2	180 m²/g	L10	Polar analytes in RP, low bleed Excellent peak shape of polar and mid-polar compounds
StableBond C18	R ₁ =C18	1.8, 3.5, 5, 7	80	90 °C	0.8-8	No	10	180 m²/g	L1	Low pH and high temperature Excellent stability and peak shape at highly acidic conditions
StableBond C8	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1.8, 3.5, 5, 7	80	80 °C	1-8	No	5.5	180 m²/g	L7	Low pH and high temperature Lower retention of hydrophobic analytes vs. C18
StableBond C3	$-0H$ $R_1=C3$ -0 Si R_1	1.8, 3.5, 5	80	80 °C	1-8	No	4	180 m²/g	L56	Low pH and high temperature Reduced retention of hydrophobic analytes
StableBond Aq	Proprietary	1.8, 3.5, 5, 7	80	80 °C	1-8	No	Proprietary	180 m²/g	L96	Polar analytes in RP Excellent peak shape and retention of polar compounds using reversed-phase LC, stable at 100% aqueous mobile phases
StableBond Phenyl	-0 — Si — R ₁ R ₁ =Phenylethyl	1.8, 3.5, 5, 7	80	80 °C	1-8	No	5.5	180 m²/g	L11	Alternative selectivity for aromatic compounds Enhanced pi-pi interactions when using methanol
StableBond CN	$R_1=(CH_2)_n$ -CN	1.8, 3.5, 5, 7	80	80 °C	1-8	No	4	180 m²/g	L10	Polar molecules at low pH or high temperature, low bleed Excellent peak shape of polar and mid-polar compounds
Extend C18	C18	1.8, 3.5, 5, 7	80	60 °C	2-11.5	Double	4	180 m²/g	L1	High pH applications Robust performance and long lifetimes under high pH
Bonus-RP	R (CH ₂) _n —Polar group	1.8, 3.5, 5, 7	80	60 °C	2-9	Triple	9.5	180 m²/g	L60	Alternative Selectivity to C18 Improved peak shape for basic compounds, stable in 100% aqueous conditions
HILIC Plus		1.8, 3.5	95	Only mobile phase limits apply	1-8	No	0	180 m²/g	L3	Polar analytes in HILIC mode Excellent retention of polar compounds by HILIC
Rx C18	CH ₃ -0-Si -CH ₃	3.5, 5, 7	80	60 °C	2-8	No	12	180 m²/g	L1	General purpose High carbon load for increased retention
Rx C8	CH ₃ -0—Si -CH ₃	3.5, 5	80	80 °C	1-8	No	5.5	180 m²/g	L7	General purpose
Rx Sil		1.8 (RRHT) 5, 7	80	Only mobile phase limits apply	0.8-8	No	0	180 m²/g	L3	Polar compounds in HILIC, NPLC and SFC mode Good starting point for method development

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Which particle is best for my method?

The state of the	1.8 µm ZORBAX RRHD: highest UHPLC performance Maximum pressure: 1200 bar Ideal for: 1290 Infinity II LC or 1260 Infinity II Prime LC
Thy8.1 Hbrc	1.8 ZORBAX RRHT: ultra-fast chromatography at up to 600 bar Maximum pressure: 600 bar Ideal for: 1260 Infinity II LC
	3.5 µm ZORBAX RR: Higher resolution of HPLC methods Maximum Pressure: 400 bar Update of traditional methods on general HPLC instruments
HPLC	5 μm ZORBAX: Proven and reliable for HPLC methods Maximum Pressure: 400 bar Used for traditional methods on general HPLC instruments and in preparative LC
1 bar = 14.5 PSI	

What column ID and length should I choose?

Format	Comment					
Column ID	4.6 mm for legacy methods3.0 mm for lower solvent use than 4.6 mm2.1 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					

Interested in modernizing your LC methods?

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

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



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