

Agilent HPLC Columns – Zorbax Eclipse XDB

- Long column life at mid pH with **extra dense bonding (XDB)** and double endcapping
- Complementary selectivity to StableBond, Bonus-RP or Extend columns
- Uses Zorbax Rx-SIL silica with uniform wall thickness for better column life at higher pH
- pH range: recommended 3 to 8, maximum 2 to 9

Zorbax Eclipse XDB Column Specifications

Bonded Phase	Pore Size	Surface Area	Temp Limits	pH Range	Carbon Endcapped	Carbon Load
XDB-C18	80Å	180m ² /g	60° C	2.0 - 9.0	Double	10%
XDB-C8	80Å	180m ² /g	60° C	2.0 - 9.0	Double	7.6%
XDB-Phenyl	80Å	180m ² /g	60° C	2.0 - 9.0	Double	7.2%

Zorbax Eclipse XDB Columns

Dimensions (mm)	Particle Size (µm)	(USP L1) XDB-C18	(USP L7) XDB-C8	(USP L11) XDB-Phenyl
4.6 x 250	5	990967-902	990967-906	990967-912
4.6 x 150	5	993967-902	993967-906	993967-912
4.6 x 50	5	946975-902	946975-906	
4.6 x 150	3.5	963967-902	963967-906	963967-912
4.6 x 100	3.5	961967-902	961967-906	
4.6 x 75	3.5	966967-902	966967-906	966967-912
4.6 x 50	3.5	935967-902	935967-906	935967-912
3.0 x 250	5	990967-302	990967-306	990967-312
3.0 x 150	5	993967-302	993967-306	993967-312
3.0 x 150	3.5	963954-302	963954-306	963954-312
3.0 x 75	3.5	966954-302		
2.1 x 150	5	993700-902	993700-906	993700-912
2.1 x 50	5	960967-902	960967-906	960967-912
2.1 x 150	3.5	930990-902	930990-906	
2.1 x 100	3.5	961753-902	961753-906	
2.1 x 75	3.5	966735-902		
2.1 x 50	3.5	971700-902	971700-906	
1.0 x 150	3.5	963600-902	963600-902	
1.0 x 50	3.5	965600-902	965600-906	
1.0 x 17, 3/pk	5	5185-5921	5185-5921	

Guard Cartridges (requires hardware kit)

4.6 x 12.5, 4/pk	5	820950-925	820950-926	820950-927
2.1 x 12.5, 4/pk	5	821125-926	821125-926	821125-926

Guard Hardware Kit (fits both 4.6 x 12.5 and 2.1 x 12.5 cartridges)

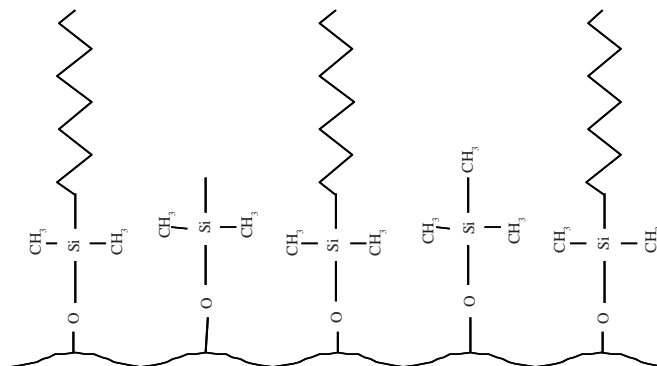
Hardware kit	-	820888-901	820888-901	820888-901
--------------	---	------------	------------	------------

Zorbax Eclipse XDB Cartridge Columns

Dimensions (mm)	Particle Size (µm)	(USP L1) XDB-C18	(USP L7) XDB-C8
4.6 x 250	5	7995118-585 ¹	7995108-585 ¹
4.6 x 150	5	7995118-595 ¹	7995108-595 ¹
4.6 x 75	3.5	7995118-344 ¹	7995108-344 ¹
4.6 x 30	3.5	933975-902 ²	933975-906 ²
4.6 x 15	3.5	931975-902 ²	931975-906 ²
4.0 x 4.0, 10/pk	5	7995118-504 ¹	7995118-504 ¹
3.0 x 75	3.5	7995230-344 ¹	
2.1 x 30	3.5	973700-902 ²	973700-906 ²
2.1 x 15	3.5	975700-902 ²	975700-906 ²
Cartridge holder	-	5021-1845	5021-1845
Hardware kit	-	820555-901	820555-901

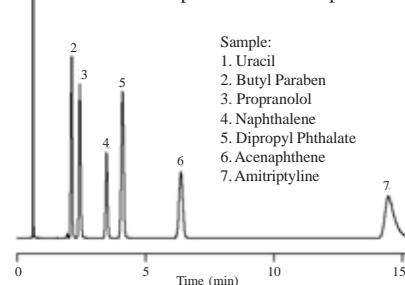
¹requires cartridge holder 5021-1845

²requires hardware kit 820222-901



Good Peak Shape

for Acids, Bases, and Neutrals on Zorbax Eclipse XDB at Mid-pH

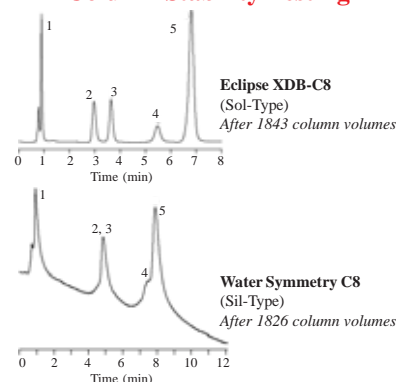


In the mid-pH region, residual silanols can interact more strongly with analytes, resulting in asymmetric peaks. The Eclipse XDB column provides good peak shape in this difficult pH range.

Column Conditions Zorbax Eclipse XDB-C8

Mobile phase: 35% 20mM NaH₂PO₄, pH 7.0, 65% MeOH
Flow rate: 1.0mL/min
Temperature: 35° C
Detection: UV 254 nm

Column Stability Testing



Column: 4.6 x 150mm, 5µm
Mobile Phase: 60% ACN, 40% 250mM phosphate buffer, pH 7.0
Flow rate: 1.5mL/min
Temperature: 60° C

Sample:
1. Uracil
2. Nortriptyline
3. Doxepin
4. Amitriptyline
5. Trimipramine

Double endcapping, dense bonding, and the durable Rx-SIL particles (sol-type) combine to provide long lifetime at pH 7.0 when compared to single endcapped sil-gel columns, such as the Waters Symmetry C8 column used here. The conditions used for this test – high temperature (60° C) and high salt concentration (250mM), accelerate the dissolution of silica, causing premature failure of the sil-gel type column.