

Sterically Protected StableBond Bonded Phase

ZORBAX 80Å StableBond

- Longest column lifetime and best reproducibility for low pH separations – down to pH 1
- Patented stable column chemistry allows use at high temperature and low pH without degradation
- Six different bonded phases provide broad selectivity – SB-C18, SB-C8, SB-CN, SB-Phenyl, SB-C3, and SB-Aq
- High purity (Type B) silica for good peak shape

Agilent ZORBAX StableBond columns use patented, unique, nonfunctional silanes with bulky diisobutyl (SB-C18) or diisopropyl (SB-C8, SB-C3, SB-Phenyl, SB-CN, and SB-Aq) side chain groups that sterically protect the key siloxane bond to the silica surface from hydrolytic attack at low pH. StableBond packing materials are not endcapped in order to provide exceptional stability and to maximize lifetime and reproducibility under acidic mobile phase conditions. The high purity, low acidity silica provides excellent peak shape with acidic, basic and neutral compounds making StableBond columns an excellent choice for low pH method development. ZORBAX StableBond columns are compatible with all common mobile phases, including very high aqueous mobile phases.

Column Specifications

| Bonded Phase | Pore Size | Surface Area | Temp. Limits* | pH Range* | Endcapped | Carbon Load |
|------------------|-----------|-----------------------|---------------|-----------|-----------|-------------|
| ZORBAX SB-C18 | 80Å | 180 m ² /g | 90 °C | 0.8-8.0 | No | 10% |
| ZORBAX SB-C8 | 80Å | 180 m ² /g | 80 °C | 1.0-8.0 | No | 5.5% |
| ZORBAX SB-C3 | 80Å | 180 m ² /g | 80 °C | 1.0-8.0 | No | 4% |
| ZORBAX SB-Phenyl | 80Å | 180 m ² /g | 80 °C | 1.0-8.0 | No | 5.5% |
| ZORBAX SB-CN | 80Å | 180 m ² /g | 80 °C | 1.0-8.0 | No | 4% |
| ZORBAX SB-Aq | 80Å | 180 m ² /g | 80 °C | 1.0-8.0 | No | proprietary |

Specifications represent typical values only

*StableBond columns are designed for optimal use at low pH. At pH 6-8, highest column stability for all silica-based columns is obtained by operating at temperatures <40 °C and using lower buffer concentrations in the range of 0.01-0.02 M. At mid-range pH, Eclipse Plus, Eclipse XDB and Bonus-RP are recommended.

TIPS & TOOLS




ZORBAX StableBond SB-C18, SB-C8 and SB-Aq phases are also available on Poroshell 120.

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ZORBAX 80Å StableBond

| Hardware Description | Size (mm) | Particle Size (µm) | SB-C18 USP L1 | SB-C8 USP L7 | SB-CN USP L10 | SB-C3 USP L56 | SB-Phenyl USP L11 | SB-Aq |
|--|-----------|--------------------|---------------|--------------|---------------|---------------|-------------------|------------|
| Standard Columns (no special hardware required) | | | | | | | | |
| Semi-Preparative | 9.4 x 250 | 5 | 880975-202 | 880967-201 | 880975-205 | 880975-209 | 880975-212 | |
| Semi-Preparative | 9.4 x 150 | 5 | 883975-202 | | | | | |
| Semi-Preparative | 9.4 x 100 | 5 | 884975-202 | | | | | |
| Semi-Preparative | 9.4 x 50 | 5 | 846975-202 | | | | | |
| Analytical | 4.6 x 250 | 5 | 880975-902 | 880975-906 | 880975-905 | 880975-909 | 880975-912 | 880975-914 |
| Analytical | 4.6 x 150 | 5 | 883975-902 | 883975-906 | 883975-905 | 883975-909 | 883975-912 | 883975-914 |
| Analytical | 4.6 x 50 | 5 | 846975-902 | 846975-906 | | | | 846975-914 |
| Rapid Resolution | 4.6 x 250 | 3.5 | 884950-567 | | | | | |
| Rapid Resolution | 4.6 x 150 | 3.5 | 863953-902 | 863953-906 | 863953-905 | | 863953-912 | 863953-914 |
| Rapid Resolution | 4.6 x 100 | 3.5 | 861953-902 | 861953-906 | 861953-905 | | 861953-912 | 861953-914 |
| Rapid Resolution | 4.6 x 75 | 3.5 | 866953-902 | 866953-906 | 866953-905 | | 866953-912 | 866953-914 |
| Rapid Resolution | 4.6 x 50 | 3.5 | 835975-902 | 835975-906 | 835975-905 | | 835975-912 | 835975-914 |
| Rapid Resolution | 4.6 x 30 | 3.5 | 834975-902 | 834975-906 | | | | |
| Rapid Resolution | 4.6 x 20 | 3.5 | 832975-902 | 832975-906 | | | | |
| Rapid Resolution HT, 600 bar | 4.6 x 150 | 1.8 | 829975-902 | 829975-906 | 829975-905 | | 829975-912 | 829975-914 |
| Rapid Resolution HT, 600 bar | 4.6 x 100 | 1.8 | 828975-902 | 828975-906 | 828975-905 | | 828975-912 | 828975-914 |
| Rapid Resolution HT, 600 bar | 4.6 x 75 | 1.8 | | 830975-906 | | | | |
| Rapid Resolution HT, 600 bar | 4.6 x 50 | 1.8 | 827975-902 | 827975-906 | 827975-905 | | 827975-912 | 827975-914 |
| Rapid Resolution HT, 600 bar | 4.6 x 30 | 1.8 | 824975-902 | 824975-906 | 824975-905 | | 824975-912 | 824975-914 |
| Rapid Resolution HT, 600 bar | 4.6 x 20 | 1.8 | 826975-902 | 826975-906 | | | | |
|  UHPLC Guard, 600 bar, 3/pk | 4.6 x 5 | 1.8 | 820750-902 | 820750-904 | | | | |
| Solvent Saver | 3.0 x 250 | 5 | 880975-302 | 880975-306 | 880975-305 | 880975-309 | 880975-312 | 880975-314 |
| Solvent Saver | 3.0 x 150 | 5 | 883975-302 | 883975-306 | 883975-305 | 883975-309 | 883975-312 | 883975-314 |
| Solvent Saver Plus | 3.0 x 150 | 3.5 | 863954-302 | 863954-306 | 863954-305 | | 863954-312 | 863954-314 |
| Solvent Saver Plus | 3.0 x 100 | 3.5 | 861954-302 | 861954-306 | 861954-305 | 861954-309 | 861954-312 | 861954-314 |
| Solvent Saver Plus | 3.0 x 75 | 3.5 | 866953-302 | | | | | |

Unless indicated, column pressure limit is 400 bar.

(Continued)

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| Hardware | Description | Size (mm) | Particle Size (µm) | SB-C18 USP L1 | SB-C8 USP L7 | SB-CN USP L10 | SB-C3 USP L56 | SB-Phenyl USP L11 | SB-Aq |
|---|------------------------------|------------|--------------------|---------------|--------------|---------------|---------------|-------------------|------------|
| Standard Columns (no special hardware required) | | | | | | | | | |
| | Narrow Bore RRHT, 600 bar | 2.1 x 150 | 1.8 | 820700-902 | 820700-906 | 820700-905 | | 820700-912 | |
| | Narrow Bore RRHT, 600 bar | 2.1 x 100 | 1.8 | 828700-902 | 828700-906 | 828700-905 | | 828700-912 | 828700-914 |
| | Narrow Bore RRHT, 600 bar | 2.1 x 50 | 1.8 | 827700-902 | 827700-906 | 827700-905 | | 827700-912 | 827700-914 |
| | Narrow Bore RRHT, 600 bar | 2.1 x 30 | 1.8 | 824700-902 | 824700-906 | 824700-905 | | 824700-912 | 824700-914 |
| | Narrow Bore RRHT, 600 bar | 2.1 x 20 | 1.8 | 826700-902 | 826700-906 | | | | |
|  | UHPLC Guard, 1200 bar, 3/pk | 2.1 x 5 | 1.8 | 821725-902 | 821725-904 | | | | |
| | MicroBore RR | 1.0 x 150 | 3.5 | 863600-902 | 863600-906 | 863600-905 | | | |
| | MicroBore RR | 1.0 x 50 | 3.5 | 865600-902 | 865600-906 | | | | |
| | MicroBore RR | 1.0 x 30 | 3.5 | 861600-902 | 861600-906 | | | | |
| | MicroBore Guard, 3/pk | 1.0 x 17 | 5 | 5185-5920 | 5185-5920 | | | | |
|  | Guard Cartridge, 2/pk | 9.4 x 15 | 7 | 820675-115 | 820675-115 | 820675-124 | 820675-124 | 820675-115 | |
|  | Guard Cartridge, 4/pk | 4.6 x 12.5 | 5 | 820950-920 | 820950-915 | 820950-916 | 820950-922 | 820950-917 | 820950-933 |
|  | Guard Cartridge, 4/pk | 2.1 x 12.5 | 5 | 821125-915 | 821125-915 | 821125-924 | 821125-924 | 821125-915 | 821125-933 |
|  | Guard Hardware Kit | 9.4 x 15 | 0 | 840140-901 | 840140-901 | 840140-901 | 840140-901 | 840140-901 | |
|  | Guard Hardware Kit | | | 820999-901 | 820999-901 | 820999-901 | 820999-901 | 820999-901 | 820999-901 |
| PrepHT Cartridge Columns (require endfittings kit 820400-901) | | | | | | | | | |
|  | PrepHT Cartridge | 21.2 x 250 | 7 | 877250-102 | 877250-106 | 877250-105 | | 877250-112 | 877250-114 |
|  | PrepHT Cartridge | 21.2 x 150 | 7 | 877150-102 | 877150-106 | | | | 877150-114 |
|  | PrepHT Cartridge | 21.2 x 150 | 5 | 870150-902 | 870150-906 | | | | 870150-914 |
|  | PrepHT Cartridge | 21.2 x 100 | 5 | 870100-902 | 870100-906 | | | | 870100-914 |
|  | PrepHT Cartridge | 21.2 x 50 | 5 | 870050-902 | 870050-906 | | | | 870050-914 |
|  | PrepHT Guard Cartridge, 2/pk | 17.0 x 7.5 | 5 | 820212-920 | 820212-915 | 820212-915 | | 820212-915 | 820212-933 |
| | Guard Cartridge Hardware | | | 820444-901 | 820444-901 | 820444-901 | 820444-901 | 820444-901 | 820444-901 |
| | PrepHT Endfittings, 2/pk | | | 820400-901 | 820400-901 | 820400-901 | 820400-901 | 820400-901 | 820400-901 |

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