# ZEOsphere C18 Specifications

Zeochem
A leader in silicate chemistry

Classic reversed phase material, based on 100 Å,120Å, 200Å and 300Å Ultra-pure silica with an excellent surface area and available in multiple particle sizes. C18 is most retentive for a wide range of acidic, basic and chelating compounds. ZEOsphere C18 provide exceptional performance for a variety of analytical and preparative applications in the (bio) pharmaceutical, nutraceutical, chemical and other chromatographic related industries.

Bonded ZEOsphere products are consistently produced and controlled according to quality standard ISO-9001. Strict QC controls from raw material to finished product ensure high lot-to-lot reproducibility and tightly controlled specifications.

ZEOsphere silicas are available in different quantities with a wide variety of packing sizes to meet individual applications and economic requirements.

| | | | ZEOsphere 100 C18 Phases | | |
|---|---|---|---|---|---|
| Method | Parameter | Unit | 100 C18 / 5um | 100 C18 / 10um | 100 C18 / 15um |
| SPZ-972 | Avg. Particle size d(50) | µm | 4.4 ± 0.1 | 10.0 ± 1.0 | 15.0 ± 1.5 |
| SPZ-012 | Surface specific, $N_2$ isotherm | $m^2/g$ | 390 ± 30 | 400 ± 40 | 440 ± 40 |
| SPZ-012 | Pore volume, $N_2$ isotherm | mL/g | 1.0 ± 1.0 | 1.0 ± 0.15 | 1.1 ± 0.1 |
| SPZ-012 | Pore size calculated, $N_2$ isotherm | nm | 10.2 ± 1.0 | 10.2 ± 2.5 | 10.0 ± 1.5 |
| SPZ-501 | w(C), total carbon content | % w/w | ≥ 20.0 | ≥ 19 | ≥ 19.5 |
| SPZ-501 | $C_{total}$ surface concentration | $\mu mol/m^2$ | ≥ 3.0 | ≥ 2.0 | ≥ 2.4 |

| | | | ZEOsphere 120 C18 Phases | |
|---|---|---|---|---|
| Method | Parameter | Unit | 120 C18 / 5um | 120 C18 / 10um |
| SPZ-972 | Avg. Particle size d(50) | µm | 4.4 ± 0.1 | 10.0 ± 1.0 |
| SPZ-012 | Surface specific, $N_2$ isotherm | $m^2/g$ | 330 ± 30 | 335 ± 35 |
| SPZ-012 | Pore volume, $N_2$ isotherm | mL/g | 1.0 ± 0.1 | 1.0 ± 0.15 |
| SPZ-012 | Pore size calculated, $N_2$ isotherm | nm | 12 ± 2.0 | 12.0 ± 2.25 |
| SPZ-501 | w(C), total carbon content | % w/w | ≥ 15.0 | ≥ 16 |
| SPZ-501 | $C_{total}$ surface concentration | $\mu mol/m^2$ | ≥ 2.0 | |

| | | | ZEOsphere 200 C18 Phases |
|---|---|---|---|
| Method | Parameter | Unit | 200 C18 / 10um |
| SPZ-972 | Avg. Particle size d(50) | µm | 10.0 ± 1.0 |
| SPZ-012 | Surface specific, $N_2$ isotherm | $m^2/g$ | 185 ± 20 |
| SPZ-012 | Pore volume, $N_2$ isotherm | mL/g | 0.95 ± 0.1 |
| SPZ-012 | Pore size calculated, $N_2$ isotherm | nm | 20.5 ± 3.0 |
| SPZ-501 | w(C), total carbon content | % w/w | ≥ 12 |
| SPZ-501 | $C_{total}$ surface concentration | $\mu mol/m^2$ | |