



An HPLC Column

Inertsil® C8-4

Inertsil® C8-4

Inertsil C8-4 is an octyl group (C8) bonded column providing the same separation pattern and extreme inertness to any type of compounds just like Inertsil ODS-4, which enables rapid analysis of highly hydrophobic compounds delivering symmetric peaks and easy method transfer from Inertsil ODS-4 to Inertsil C8-4.

Inertsil® ODS-4

Symmetric peaks for pharmaceutical bases, acids, chelating compounds, and zwitterions

Complete elimination of trace metals on the surface of the silica gel, resulting in extremely high stability analysis without the absorption of chelating compounds.

Completely compatible under 100% aqueous mobile phases

Inertsil® C8-4

Shortening the analysis time without changing the Separation Pattern

It is well known to use a C8 column when observing the retentivity of an ODS column to be too strong. It would be ideal to obtain the same separation pattern without changing the mobile phase conditions. Inertsil C8-4 provides the same separation pattern and extreme inertness to any type of compounds just like Inertsil ODS-4, which enables easy method transfer from ODS-4 to C8-4.

Physical Properties

Silica:	High Purity Spherical Silica Gel
Particle Size:	2µm, 3µm, 5µm
Surface Area:	450 m ² /g
Pore Size:	100 Å (10 nm)
Pore Volume:	1.05 mL/g
Bonded Phase:	Octyl Groups (C8)
End-capping:	Yes
Carbon Loading:	5%
USP CODE:	L7

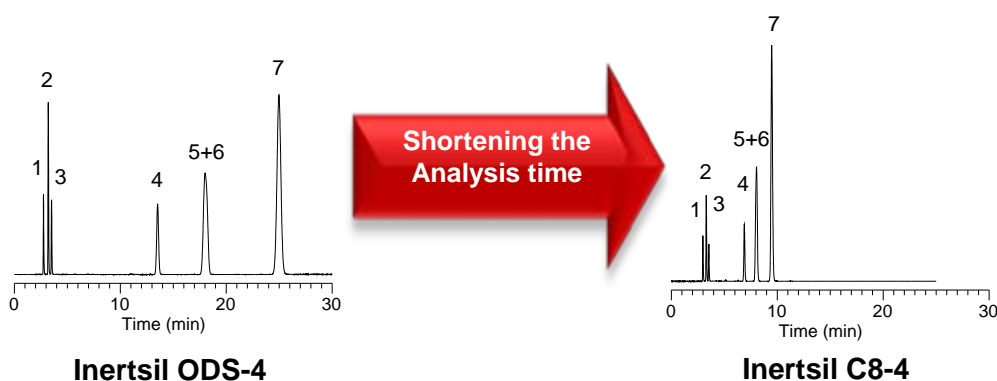
Comparison of Retentivity and Separation Pattern

Analytical Conditions

System: GL7400 HPLC system
 Column: 5µm, 150 x 4.6 mm I.D.
 Eluent: A) CH₃OH
 B) H₂O
 (A / B) = (80 / 20)
 Flow Rate: 1.0 mL/min
 Col. Temp.: 40 °C
 Detection: UV 254 nm
 Sample:

1. Uracil
2. Caffeine
3. Phenol
4. *n*-Butylbenzene
5. α -Terphenyl
6. *n*-Amylbenzene
7. Triphenylene

- Retentivity proportional to the alkyl chain length
- Same Separation Pattern as Inertsil ODS-4



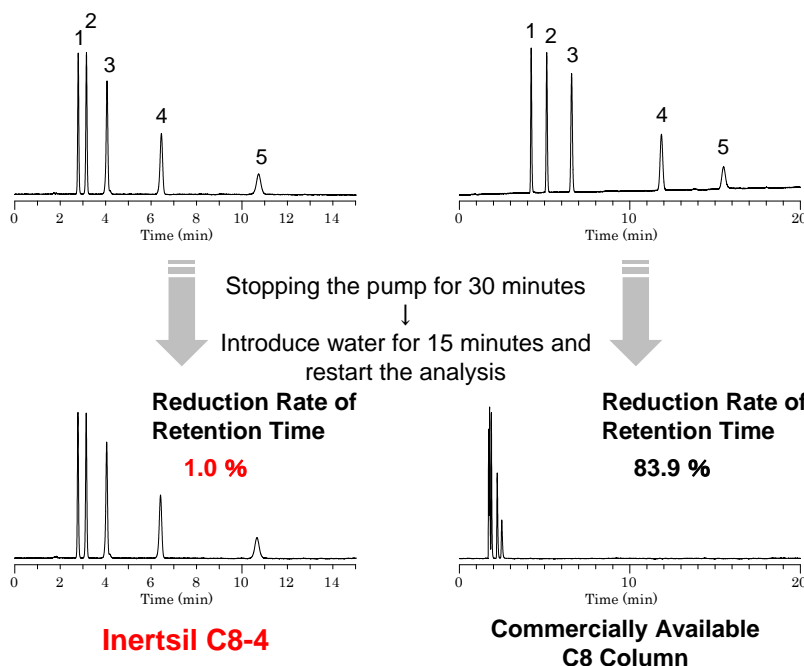
Confirming the stability to 100% aqueous mobile phase

As Inertsil C8-4 was designed to minimize the dewetting phenomenon, it provides superb stability and reproducibility even to those critical water rich mobile phase conditions. As a result, rapid analysis can be achieved in a gradient mode as well as the equilibration time of the column is short.

Analytical Conditions

System: GL7400 HPLC system
 Column: 5µm, 150 x 4.6 mm I.D.
 Eluent: 100 % H₂O
 Flow Rate: 1.0 mL/min
 Col. Temp.: 40 °C
 Detection: UV 254 nm
 Sample:

1. Cytosine
2. Uracil
3. Guanine
4. Thymine
5. Adenine



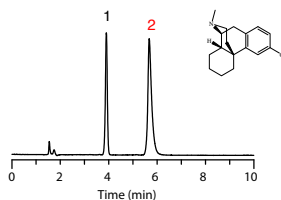
Part No.	Description	Quantity	Price
2µm			
IN5020-81261	INERTSIL C8-4, 30 x 1.0mm, 2µm	each	\$583.00
IN5020-81262	INERTSIL C8-4, 50 x 1.0mm, 2µm	each	\$612.00
IN5020-81263	INERTSIL C8-4, 75 x 1.0mm, 2µm	each	\$699.00
IN5020-81264	INERTSIL C8-4, 100 x 1.0mm, 2µm	each	\$773.00
IN5020-81265	INERTSIL C8-4, 150 x 1.0mm, 2µm	each	\$832.00
IN5020-81266	INERTSIL C8-4, 250 x 1.0mm, 2µm	each	\$932.00
IN5020-81271	INERTSIL C8-4, 30 x 1.5mm, 2µm	each	\$583.00
IN5020-81272	INERTSIL C8-4, 50 x 1.5mm, 2µm	each	\$612.00
IN5020-81273	INERTSIL C8-4, 75 x 1.5mm, 2µm	each	\$699.00
IN5020-81274	INERTSIL C8-4, 100 x 1.5mm, 2µm	each	\$773.00
IN5020-81275	INERTSIL C8-4, 150 x 1.5mm, 2µm	each	\$832.00
IN5020-81276	INERTSIL C8-4, 250 x 1.5mm, 2µm	each	\$932.00
IN5020-81280	INERTSIL C8-4, 30 x 2.1mm, 2µm	each	\$686.00
IN5020-81282	INERTSIL C8-4, 50 x 2.1mm, 2µm	each	\$699.00
IN5020-81283	INERTSIL C8-4, 75 x 2.1mm, 2µm	each	\$773.00
IN5020-81284	INERTSIL C8-4, 100 x 2.1mm, 2µm	each	\$847.00
IN5020-81285	INERTSIL C8-4, 150 x 2.1mm, 2µm	each	\$968.00
IN5020-81290	INERTSIL C8-4, 30 x 3.0mm, 2µm	each	\$686.00
IN5020-81292	INERTSIL C8-4, 50 x 3.0mm, 2µm	each	\$699.00
IN5020-81293	INERTSIL C8-4, 75 x 3.0mm, 2µm	each	\$773.00
IN5020-81294	INERTSIL C8-4, 100 x 3.0mm, 2µm	each	\$847.00
IN5020-81295	INERTSIL C8-4, 150 x 3.0mm, 2µm	each	\$968.00
3µm			
IN5020-03971	INERTSIL C8-4, 30 x 2.1mm, 3µm	each	\$460.00
IN5020-03972	INERTSIL C8-4, 50 x 2.1mm, 3µm	each	\$504.00
IN5020-03973	INERTSIL C8-4, 75 x 2.1mm, 3µm	each	\$560.00
IN5020-03974	INERTSIL C8-4, 100 x 2.1mm, 3µm	each	\$605.00
IN5020-03975	INERTSIL C8-4, 150 x 2.1mm, 3µm	each	\$650.00
IN5020-03976	INERTSIL C8-4, 250 x 2.1mm, 3µm	each	\$717.00
IN5020-03978	INERTSIL C8-4, 30 x 3.0mm, 3µm	each	\$460.00
IN5020-03979	INERTSIL C8-4, 50 x 3.0mm, 3µm	each	\$504.00
IN5020-03980	INERTSIL C8-4, 75 x 3.0mm, 3µm	each	\$560.00
IN5020-03981	INERTSIL C8-4, 100 x 3.0mm, 3µm	each	\$605.00
IN5020-03982	INERTSIL C8-4, 150 x 3.0mm, 3µm	each	\$650.00
IN5020-03983	INERTSIL C8-4, 250 x 3.0mm, 3µm	each	\$717.00
IN5020-03985	INERTSIL C8-4, 30 x 4.0mm, 3µm	each	\$460.00
IN5020-03986	INERTSIL C8-4, 50 x 4.0mm, 3µm	each	\$504.00
IN5020-03987	INERTSIL C8-4, 75 x 4.0mm, 3µm	each	\$560.00
IN5020-03988	INERTSIL C8-4, 100 x 4.0mm, 3µm	each	\$605.00
IN5020-03989	INERTSIL C8-4, 150 x 4.0mm, 3µm	each	\$650.00
IN5020-03990	INERTSIL C8-4, 250 x 4.0mm, 3µm	each	\$717.00
IN5020-03992	INERTSIL C8-4, 30 x 4.6mm, 3µm	each	\$460.00
IN5020-03993	INERTSIL C8-4, 50 x 4.6mm, 3µm	each	\$504.00
IN5020-03994	INERTSIL C8-4, 75 x 4.6mm, 3µm	each	\$560.00
IN5020-03995	INERTSIL C8-4, 100 x 4.6mm, 3µm	each	\$605.00
IN5020-03996	INERTSIL C8-4, 150 x 4.6mm, 3µm	each	\$650.00
IN5020-03997	INERTSIL C8-4, 250 x 4.6mm, 3µm	each	\$717.00

Part No.	Description	Quantity	Price
5µm			
IN5020-81231	Inertsil C8-4, 30 x 1.5mm, 5µm	each	\$540.00
IN5020-81232	Inertsil C8-4, 50 x 1.5mm, 5µm	each	\$569.00
IN5020-81233	Inertsil C8-4, 75 x 1.5mm, 5µm	each	\$657.00
IN5020-81234	Inertsil C8-4, 100 x 1.5mm, 5µm	each	\$728.00
IN5020-81235	Inertsil C8-4, 150 x 1.5mm, 5µm	each	\$787.00
IN5020-81236	Inertsil C8-4, 250 x 1.5mm, 5µm	each	\$845.00
IN5020-04051	Inertsil C8-4, 30 x 2.1mm, 5µm	each	\$426.00
IN5020-04052	Inertsil C8-4, 50 x 2.1mm, 5µm	each	\$471.00
IN5020-04053	Inertsil C8-4, 75 x 2.1mm, 5µm	each	\$516.00
IN5020-04054	Inertsil C8-4, 100 x 2.1mm, 5µm	each	\$560.00
IN5020-04055	Inertsil C8-4, 150 x 2.1mm, 5µm	each	\$605.00
IN5020-04056	Inertsil C8-4, 250 x 2.1mm, 5µm	each	\$650.00
IN5020-04061	Inertsil C8-4, 30 x 3.0mm, 5µm	each	\$426.00
IN5020-04062	Inertsil C8-4, 50 x 3.0mm, 5µm	each	\$471.00
IN5020-04063	Inertsil C8-4, 75 x 3.0mm, 5µm	each	\$516.00
IN5020-04064	Inertsil C8-4, 100 x 3.0mm, 5µm	each	\$560.00
IN5020-04065	Inertsil C8-4, 150 x 3.0mm, 5µm	each	\$605.00
IN5020-04066	Inertsil C8-4, 250 x 3.0mm, 5µm	each	\$650.00
IN5020-04071	Inertsil C8-4, 30 x 4.0mm, 5µm	each	\$426.00
IN5020-04072	Inertsil C8-4, 50 x 4.0mm, 5µm	each	\$471.00
IN5020-04073	Inertsil C8-4, 75 x 4.0mm, 5µm	each	\$516.00
IN5020-04074	Inertsil C8-4, 100 x 4.0mm, 5µm	each	\$560.00
IN5020-04075	Inertsil C8-4, 150 x 4.0mm, 5µm	each	\$605.00
IN5020-04076	Inertsil C8-4, 250 x 4.0mm, 5µm	each	\$650.00
IN5020-04081	Inertsil C8-4, 30 x 4.6mm, 5µm	each	\$426.00
IN5020-04082	Inertsil C8-4, 50 x 4.6mm, 5µm	each	\$471.00
IN5020-04083	Inertsil C8-4, 75 x 4.6mm, 5µm	each	\$516.00
IN5020-04084	Inertsil C8-4, 100 x 4.6mm, 5µm	each	\$560.00
IN5020-04085	Inertsil C8-4, 150 x 4.6mm, 5µm	each	\$605.00
IN5020-04086	Inertsil C8-4, 250 x 4.6mm, 5µm	each	\$650.00

Adsorption performance on various compounds

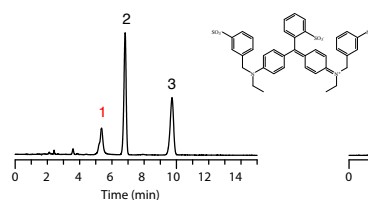
Basic Compound (Dextromethorphan)

Column: Inertsil C8-4
Sum 150x 4.6 mm I.D.
Eluent: A) CH₃CN
B) 25 mM Phosphate buffer ; pH 7.0
(A / B) = (40 / 60)
Flow Rate: 1.0 mL/min
Col.Temp.: 40
Detection: UV at 220 nm
Sample: 1.0 µL 0.1 mg / mL
1) Phenol
2) **Dextromethorphan**



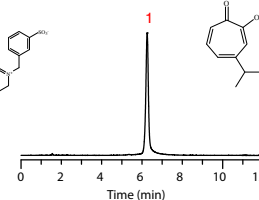
Acidic Compound (Brilliant Blue FCF)

Column: Inertsil C8-4
Sum 150x 4.6 mm I.D.
Eluent: A) CH₃CN
B) 0.1% H₃PO₄
A / B) = (25 / 75)
Flow Rate: 1.0 mL/min
Col.Temp.: 40
Detection: UV at 254 nm
Sample: 3.0 µL
1) **Brilliant Blue FCF** (0.05 mg / mL)
2) Phenol (0.3 mg / mL)
3) Salicylic acid (0.2 mg / mL)



Chelating Compound (Hinokitiol)

Column: Inertsil C8-4
Sum 150x 4.6 mm I.D.
Eluent: A) CH₃CN
B) 0.1% H₃PO₄
(A / B) = (40 / 60)
Flow Rate: 1.0 mL/min
Col.Temp.: 40
Detection: UV at 254 nm
Sample: 1.0 µL (0.1 mg / mL)
1) **Hinokitiol**



**Please contact your
sales representative
for more information!**

New State-Of-The-Art end-capping technique enabled an ultimate elimination of residual silanol in the silica gel, resulting in providing extreme inertness to basically any type of compounds just like Inertsil ODS-4 with high stability.

