

## Develosil® FlexFire C8

### Improved unsatisfactory separations and peaks ! !

FlexFire C8 is a column developed mainly for hydrophobic interactions like FlexFire C18. Whereas traditional C8 has the advantage of time savings due to its shorter alkyl, FlexFire C8 is a column that provides retention and separation rather than time savings.

This column is useful for separation of methods constructed with C8 columns and improvement of peak shape.

### Spec of FlexFire C8

	FlexFire C8
Particle size	1.6µm, 2.6µm, 5µm
Chemistry	Octyl
Surface area	340m <sup>2</sup> /g
Pore volume	1.0mL/g
Pore diameter	11nm
Carbon	12%
End-cap	○
pH	pH1-10
Temperature	~80°C
Max pressure	1.6µm: 800bar (=80Mpa=11,603psi)
	2.6µm: 600bar (=60Mpa=8,702psi)
	5µm: 300bar (=30Mpa=4,351psi)

#### Conditions;

Column: Develosil FlexFire C8, 2.6µm (2.0x50mm)  
 Develosil C8-UG, 3µm (2.0x50mm)  
 Other C8, 3µm (2.0x50mm)

Mobile phase: Acetonitrile/0.1% H<sub>3</sub>PO<sub>4</sub>=45/55

Flow rate: 0.3mL/min

Temperature: 40°C

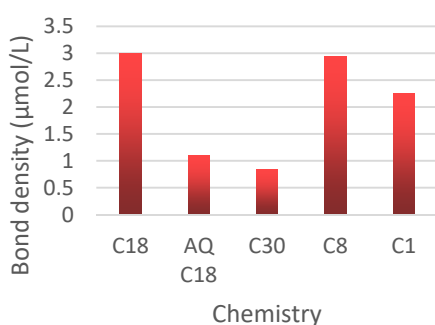
Detection: UV254nm

Injection volume: 0.2µL

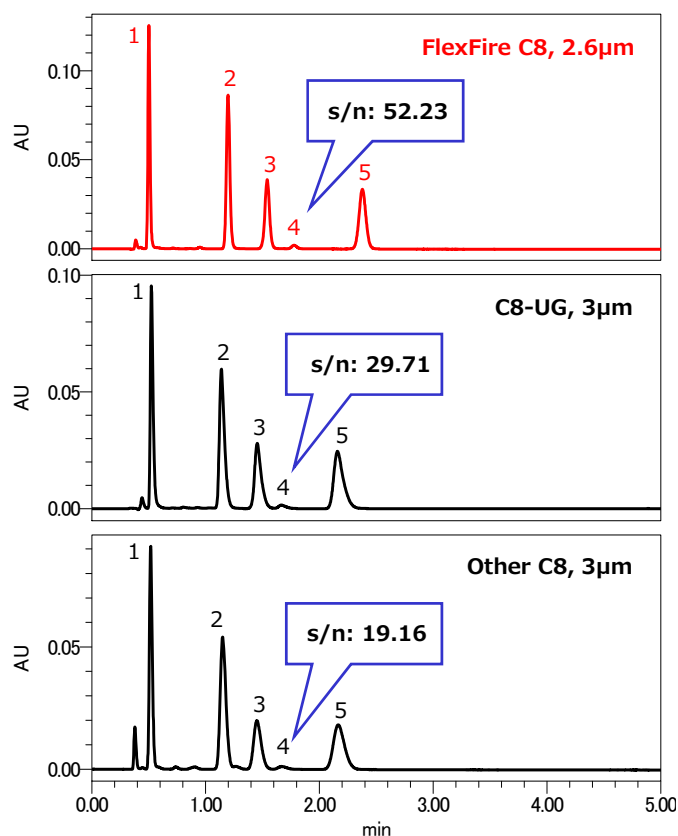
System: Waters ACQUITY UPLC H-Class PLUS

FlexFire C8 can obtain a sharper peak shape compared to conventional products and products of other companies. S/N is improved and even a slight peak is not missed.

### Comparison of FlexFire series bond density

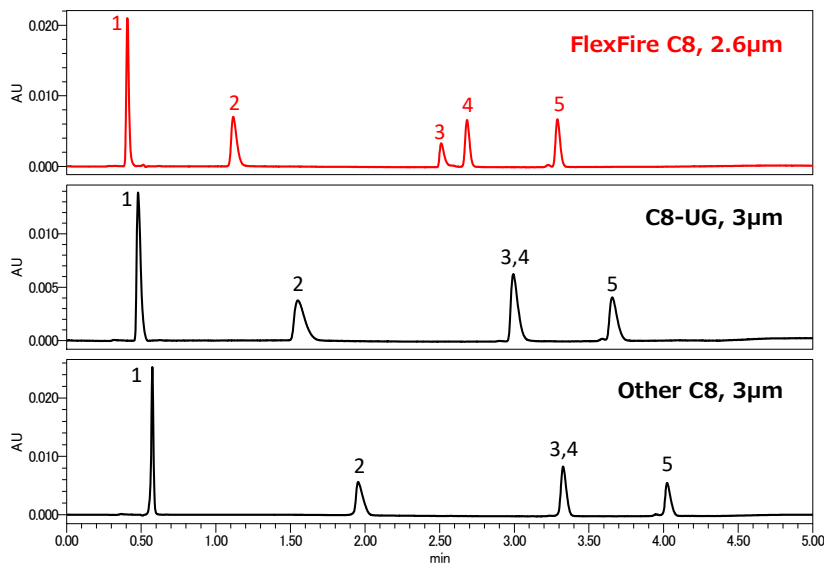


FlexFire C8 has a carbon content of 12%, but its bond density is almost the same as C18. This high binding density contributes to improved column durability.



Comparison of pesticides separation and S/N

## Superiority regardless of compound



### Comparison of Peptides separation

#### Conditions;

Column: Develosil FlexFire C8, 2.6µm (2.0x50mm)  
Develosil C8-UG, 3µm (2.0x50mm)  
Other C8, 3µm (2.0x50mm)  
Mobile phase: A) Water + 0.1%HCOOH  
Flow rate: B) Acetonitrile + 0.1%HCOOH

#### Gradient:

min	mL/min	%A	%B	Curve
0.00	0.3	90	10	
2.93	0.3	75	25	6
2.96	0.3	90	10	6

#### Detection:

UV260nm

#### Sample:

1. Gly-Tyr 2. Val-Tyr-Val 3. Angiotensin II  
4. Met-Enk 5. Leu-Enk

#### Injection volume:

0.2µL

#### System:

Waters ACQUITY UPLC H-Class PLUS

Even in the comparison of peptide separation under 0.1% formic acid conditions, the superiority in peak shape and separation is confirmed. This fact does not change when transferring from 5 µm to method transfer to 1.6 µm.

Lower retention than C18 improves throughput and, with the added advantages of FlexFire C8, can be built as a new approach to method development.

## Order information

Product	Particle	Size (i.d.XL)	Sutainless	Metal-Free
FlexFire C8	1.6µm	2.0x35mm	303-I20035W	303-I20035MFW
		2.0x50mm	303-I20050W	303-I20050MFW
		2.0x75mm	303-I20075W	303-I20075MFW
		2.0x100mm	303-I20100W	303-I20100MFW
		2.0x150mm	303-I20150W	303-I20150MFW
		2.0x250mm	-	-
	2.6µm	2.0x35mm	303-L20035W	303-L20035MFW
		2.0x50mm	303-L20050W	303-L20050MFW
		2.0x75mm	303-L20075W	303-L20075MFW
		2.0x100mm	303-L20100W	303-L20100MFW
		2.0x150mm	303-L20150W	303-L20150MFW
		2.0x250mm	303-L20250W	303-L20250MFW
	5µm	2.0x35mm	303-520035W	303-520035MFW
		2.0x50mm	303-520050W	303-520050MFW
		2.0x75mm	303-520075W	303-520075MFW
		2.0x100mm	303-520100W	303-520100MFW
		2.0x150mm	303-520150W	303-520150MFW
		2.0x250mm	303-520250W	303-520250MFW

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