CREDCHROM HPLC COLUMN

CREDENCE SCIENTIFIC

PREPARATIVE HPLC COLUMN

Credence Scientific supply high-performance and economical types of Preparative HPLC columns to meet your multiple needs. high-performance columns use materials all from the U.S., Japan, and Europe to guarantee your usage. All of CredChrom columns are high Performance guaranted.

HPLC Preparative Columns

Inner diameter: 7.8mm / 10mm / 20mm / 21.2mm / 30mm / 50 mm
Length: 50 - 500 mm

PREP HPLC Column Introduction

Chemistry	Particle Size	Pore Size	Specific surface area	Carbon content	End capped	Usgage pH
C18	5/8/10/15/20/50/75µm	120Å	330m²/g	16%	Yes	pH 2-8
C18H	5/8/10µm	120Å	330m²/g	20%	Yes	pH 2-11
C8M	5/8/10µm	120Å	330m²/g	12%	Yes	pH 2-8
C8X	5/8/10µm	120Å	330m²/g	9%	Yes	pH 2-11
C4	5/8/10µm	120Å	330m²/g	3%	Yes	pH 2-8
C18Bio	5/10µm	300Å	120m²/g	8%	Yes	pH 2-8
C8Bio	5/10µm	300Å	120m²/g	5%	Yes	pH 2-8
Diol	5/10µm	120Å	330m²/g	8%	Yes	pH 2-8
NH2	5/10µm	120Å	330m²/g	5%	Yes	pH 2-8
CN	5/10µm	120Å	330m²/g	7%	Yes	pH 2-8
Phenyl	5/10µm	120Å	330m²/g	8%	Yes	pH 2-8
SiO2	5/7/10/20/50/75µm	120Å	330m²/g	-	-	pH 2-8
SiO2-S	5/10µm	80/100/200Å	300m²/g	-	-	pH 2-8
SiO2-Bio	5/10µm	300Å	120m²/g	-	-	pH 2-8

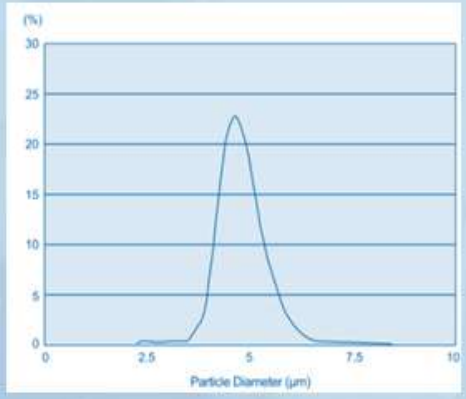
\

CREDCHROM Preparative HPLC series are versatile media based on the silica-gel substrate for reversed-phase chromatography CredChrom is a long carbon chain C18 bound with the spherical silica-gel substrate which has low metal-ion content (<20 ppm)， high specific surface area and good mechanical strength. With CredChrom unique chemical bonding technique， CredChrom has excellent stability of bonding and end-capping. CredChrom meet the high requirements for analysis and preparative applications.

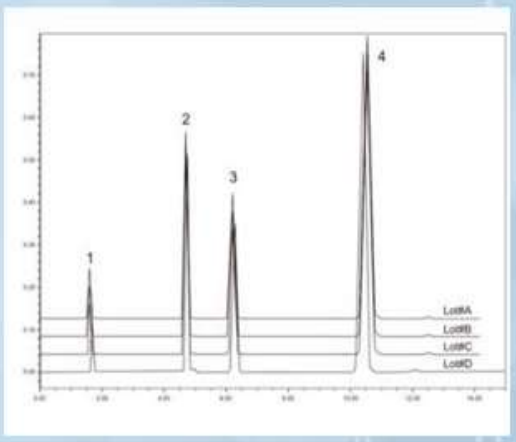
Advantages:

- Low silanol activity
- Uniform ligand binding
- Low metal content
- Narrow particle size
- Excellent stability

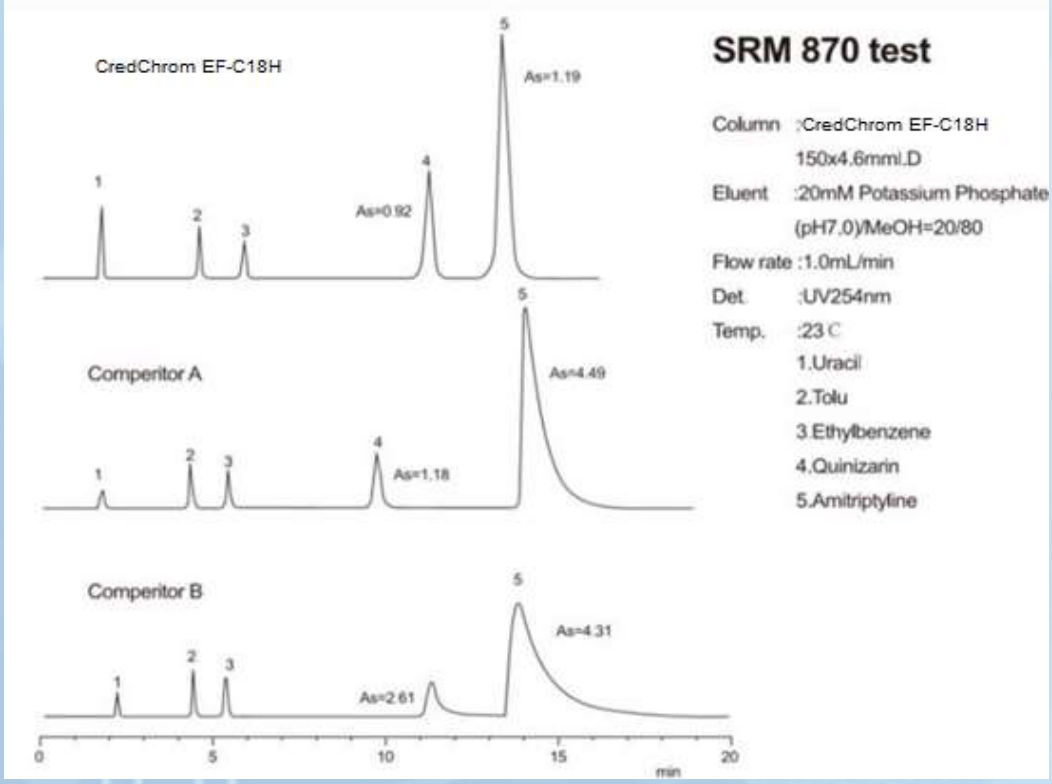
Distribution of Particle Size for CredChrom C18 5um



Repeated Injection tests for CredChrom C18 5um



National Institute of Standards and Technology (NIST) ERM 870 Test



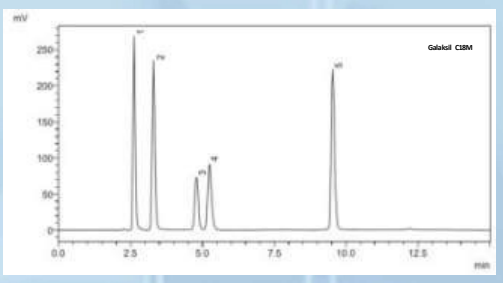
CREDCHROM C18H can use in alkali environment with high pH CIP(Clean-in-Place） process. The isolation of toluene and ethylbenzene test shows the uniformities of binding ligands on the silica-gel substrate.

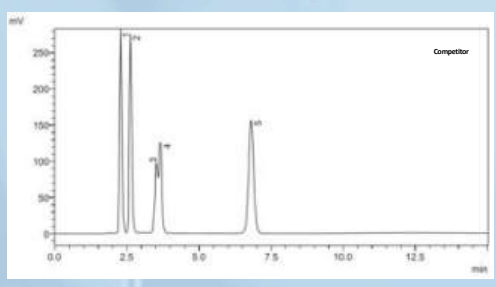
redChrom C18M

Parameters

Particle Size	Pore Size	Surface Area	Carbon Content	pH Range
5/10um	120Å	330m^2/g	16%	2-8

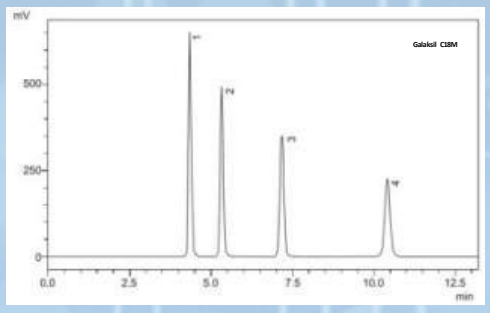
Application

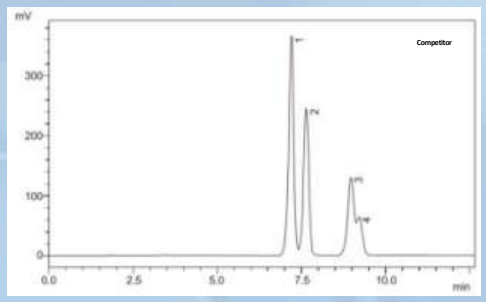




Nucleotide
Column: C18M 5μm 4.6×150mm
Competitor ODS 5μm 4.6×150mm
Mobile Phase:
phosphoric acid buffer / methyl alcohol
Flow Rate: 1ml/min
Wavelength: 254nm
Temp.: 25℃

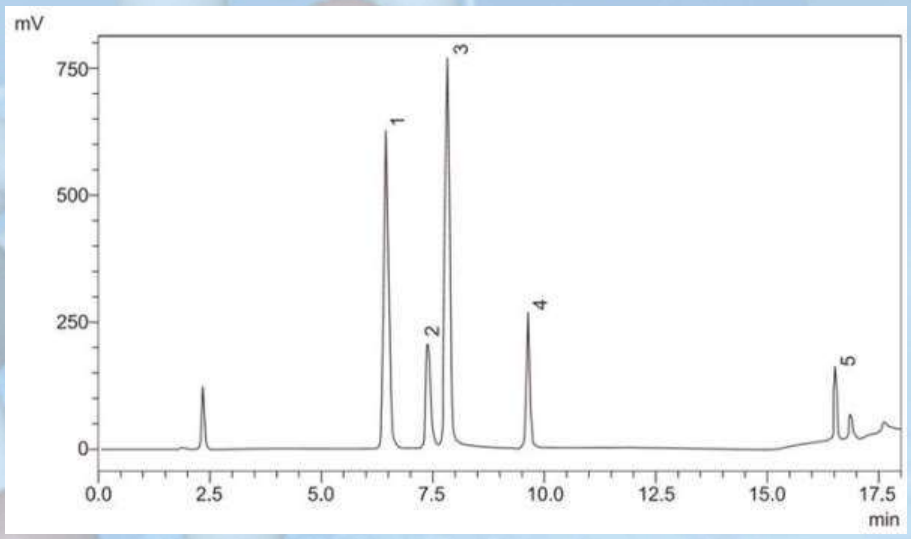
1 5′-cytidylic acid; 2 5′-uridylic acid;
3 5′-guanylic acid; 4 5′-inosinic acid;
5 5′-adenylic acid





Paraben
Column: EF-C18M 5μm
4.6×150mm
Competitor ODS 5μm
4.6×150mm
Mobile Phase: Water / methyl alcohol
Flow Rate: 1ml/min
Wavelength: 254nm
Temp.: 25℃

1 Methyl ester; 2 Ethyl ester;
3 Propyl ester; 4 Butyl ester



Water-soluble multivitamin
Column: C18M 5μm
4.6×150mm
Mobile Phase:
phosphoric acid buffer / acetonitrile
Flow Rate: 1ml/min
Wavelength: 210nm
Temp.: 25℃

1 Pyridoxine;
2 VB1;
3 Nicotinamide;
4 Folic acid;
5 VB2

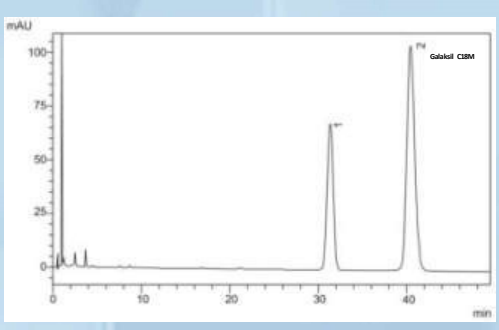
Reversed-phase Chromatography

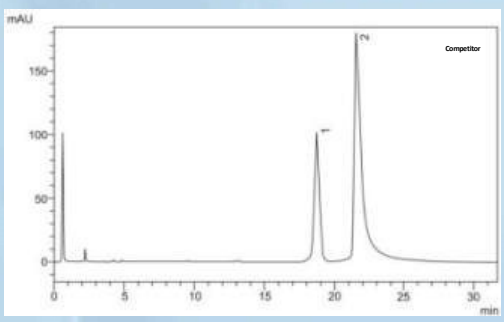
CredChrom C18H

Parameters

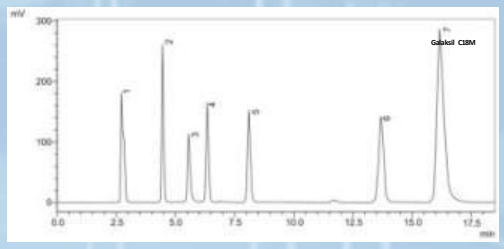
Particle Size	Pore Size	Surface Area	Carbon Content	pH Range
5/10um	120Å	330m²/g	20%	2-11

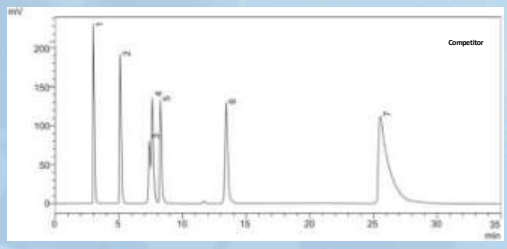
Application





Ibuprofen/Benzene ketone
Column: EF-C18H 5μm 4.6×150mm
Competitor 5μm 4.6×150mm
Mobile Phase:
phosphoric acid buffer / acetonitrile
Flow Rate: 2ml/min
Wavelength: 214nm
Temp.: 30℃

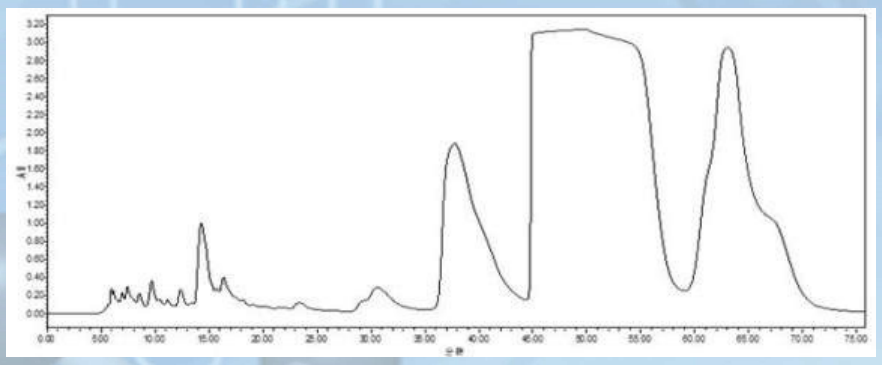




Polar/Nonpolar/ Neutral/Alkali Compounds
Column: EF-C18H 5μm 4.6×250mm
Competitor 5μm 4.6×250mm
Mobile Phase:
phosphoric acid buffer / methyl alcohol
Flow Rate: 1ml/min
Wavelength: 254nm
Temp.: 30℃

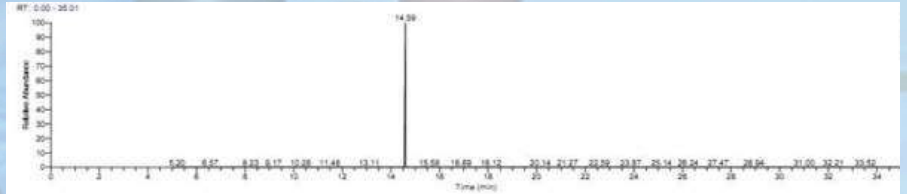
1 Uracil; 2 Butyl p-hydroxybenzoate;
3 Propranolol; 4 Di-propyl ortho-phthalate;
5 Naphthalene; 6 Acenaphthene;
7 Amitriptyline

The purification of EPA in fish oil



EPA in fish oil
Column: C18H 8μm
20×250mm
Sample: 90% EPA material

Finished sample
Purification: 99.7%

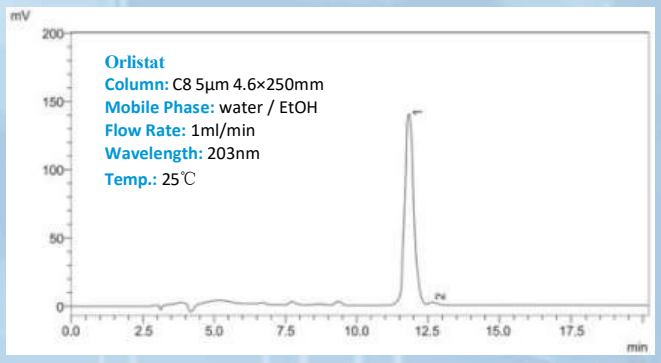


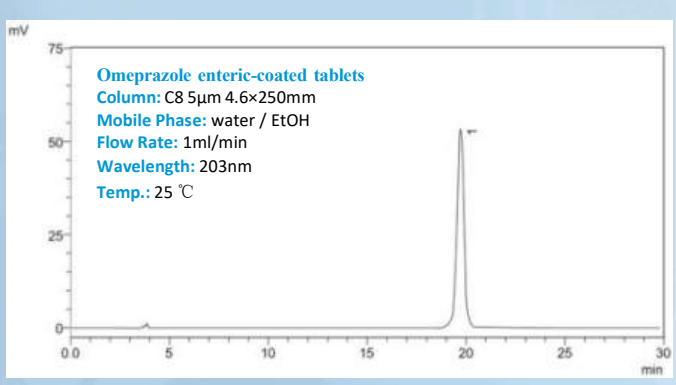
CredChrom C8M

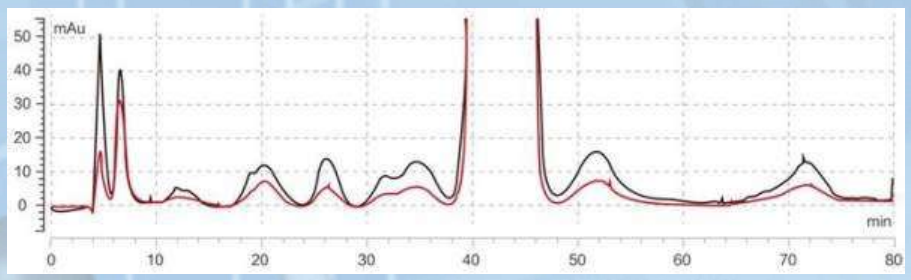
Parameters

Particle Size	Pore Size	Surface Area	Carbon Content	pH Range
5/10um	120Å	330m²/g	12%	2-8

Application



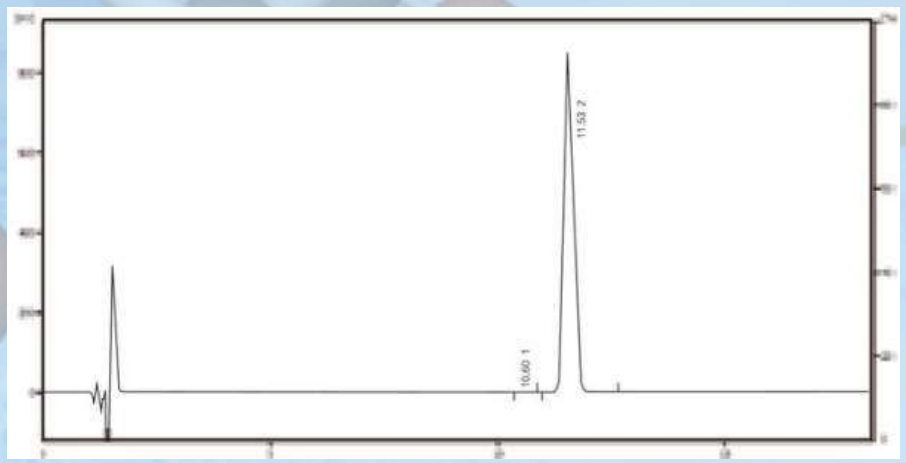




Orlistat
Column: EP-C8 10μm 10×250mm
Mobile Phase: EtOH solution **Flow Rate:** 4ml/min **Wavelength:** 195nm

Sample:
Dissolved raw material with methyl alcoh
Concentration: 50-60mg/ml

Finished sample
Purification: 99.8%
Single impurity < 0.1%
Recovery: ≥90%



Insulin

Column: C8 8μm 10×250mm

Time	A	B
0	85%	15%
5min	85%	15%
15min	64%	36%
225min	34%	66%

	Cycle	Injection	Purification	P1	P1c	P2
CredChrom C8	1	100ml	99.76%	0.21%	0.02%	0.01%
		50ml	99.74%	0.22%	0.02%	0.02%
	2	50ml	99.75%	0.22%	0.02%	0.01%
	3	50ml	99.74%	0.22%	0.02%	0.01%
	4	50ml	99.74%	0.22%	0.02%	0.01%
	5	50ml	99.76%	0.21%	0.02%	0.01%
	6	50ml	99.75%	0.22%	0.02%	0.02%
	7	50ml	99.76%	0.21%	0.02%	0.02%
	8	50ml	99.74%	0.22%	0.02%	0.01%
	9	50ml	99.74%	0.22%	0.02%	0.02%

Preparative HPLC Column Size of C18, C8 and Si Phase	Column Size (mm)	Part Number
5um particles		
CredChrom EF-SiO2 5um 120A, pH 2-8	7.8× 250 mm	CCEF-5Si-120-7.8x250
	10× 250 mm	CCEF-5Si-120-10x250
	20× 250 mm	CCEF-5Si-120-20x250
	21.2× 250 mm	CCEF-5Si-120-21.2x250
CredChrom EF-C18M 5um 120A carbon content 16 , pH 2-8	7.8× 250 mm	CCEF-5C18M-120-7.8x250
	10× 250 mm	CCEF-5C18M-120-10x250
	20× 250 mm	CCEF-5C18M-120-20x250
	21.2× 250 mm	CCEF-5C18M-120-21.2x250
CredChrom EF-C18H 5um 120A carbon content 20 , pH 2-11	7.8× 250 mm	CCEF-5C18H-120-7.8x250
	10× 250 mm	CCEF-5C18H-120-10x250
	20× 250 mm	CCEF-5C18H-120-20x250
	21.2× 250 mm	CCEF-5C18H-120-21.2x250
8um particles		
CredChrom EP-C18M 8um 120A carbon content 16 , pH 2-8	7.8× 250 mm	CCEP-8C18M-120-7.8x250
	10× 250 mm	CCEP-8C18M-120-10x250
	20× 250 mm	CCEP-8C18M-120-20x250
	21.2× 250 mm	CCEP-8C18M-120-21.2x250
	30× 250 mm	CCEP-8C18M-120-30x250
	50× 250 mm	CCEP-8C18M-120-50x250
CredChrom EP-C18H 8um 120A carbon content 20%, pH 2-11	7.8× 250 mm	CCEP-8C18M-120-7.8x250
	10× 250 mm	CCEP-8C18H-120-10x250
	20× 250 mm	CCEP-8C18H-120-20x250
	21.2× 250 mm	CCEP-8C18H-120-21.2x250
	30× 250 mm	CCEP-8C18H-120-30x250
	50× 250 mm	CCEP-8C18H-120-50x250
10um particles		
CredChrom EP-SiO2 10um 120A, pH 2-8	7.8× 250 mm	CCEP-10Si-120-7.8x250
	10× 250 mm	CCEP-10Si-120-10x250
	20× 250 mm	CCEP-10Si-120-20x250
	21.2× 250 mm	CCEP-10Si-120-21.2x250
	30× 250 mm	CCEP-10Si-120-30x250
	50× 250 mm	CCEP-10Si-120-50x250
CredChrom EP-C18M 10um 120A carbon content 16 , pH 2-8	7.8× 250 mm	CCEP-10C18M-120-7.8x250
	10× 250 mm	CCEP-10C18M-120-10x250
	20× 250 mm	CCEP-10C18M-120-20x250
	21.2× 250 mm	CCEP-10C18M-120-21.2x250
	30× 250 mm	CCEP-10C18M-120-30x250
	50× 250 mm	CCEP-10C18M-120-50x250
CredChrom EP-C18H 10um 120A carbon content 20 , pH 2-11	7.8× 250 mm	CCEP-10C18H-120-7.8x250
	10× 250 mm	CCEP-10C18H-120-10x250
	20× 250 mm	CCEP-10C18H-120-20x250
	21.2× 250 mm	CCEP-10C18H-120-21.2x250
	30× 250 mm	CCEP-10C18H-120-30x250
	50× 250 mm	CCEP-10C18H-120-50x250