

SURFING ON THE CREST OF THE WAVE



New line from UHPLC to Preparative

Teknokroma's Vela UHPLC and HPLC Columns

Vela UHPLC and HPLC columns are engineered for high-end chromatography, delivering exceptional performance across diverse applications. Designed to exceed the expectations of laboratory scientists, **these columns ensure precise, robust, and reproducible results** in pharmaceutical, environmental, and food analysis.

FEATURES

- High-pressure endcapping method: 99% blockage of free silanols (HE).
- Verified true particle size.
- Maximized pore size utilization

AVAILABLE PHASES



Reversed Phase

C18 UE
C18 UET
C8 UE
C8 UET
C18 AQ
C8 AQ
Phenyl Hexyl
Bi-Phenyl
C30
C4
Amino-Sugar

Normal Phase

Si
Cyano
Amino

HILIC Phase

Diol
EP4
PEI

The *Fresh Breeze* of Chromatography

teknokroma.es

 **Teknokroma**[®]
Professionally Friendly

VELA FEATURES AND BENEFITS

High-Pressure Endcapping (HE)

- Achieves 99% blockage of free silanols on the silica surface, preventing reactive interactions.
- Benefits:
 - Superior Peak Shapes: Minimizes peak tailing, especially for analytes with polar or basic groups.
 - Enhanced Reproducibility: Reliable results even in complex separations.
 - Improved Sensitivity: Reduces unwanted analyte adsorption, lowering detection limits.

Verified True Particle Size

- Consistent particle size is a critical factor in enhancing separation efficiency, ensuring reliable and reproducible results in every application.
- Benefits:
 - Monodisperse Particle Distribution: A precisely uniform particle size reduces band broadening, leading to superior resolution and sharper peak separation.
 - Optimized Packing: Engineered for uniform packing density, this feature minimizes variability between runs and enhances reproducibility, providing consistent and predictable performance.
 - Enhanced Flow Uniformity: Improved flow dynamics speed up the exchange of components, resulting in better separation efficiency and overall performance.

Maximized Pore Size Utilization

- Essential for high-resolution analysis of large or complex molecules.
- Benefits:
 - Enhanced Analyte Accessibility: Promotes full interaction with the stationary phase.
 - Improved Retention and Selectivity: Effective for reversed-phase chromatography.
 - Uniform pore distribution minimizes diffusion resistance, improving analyte interaction and resolution without sacrificing speed.

These features ensure the Vela columns provide exceptional chromatographic performance, enabling precise, reliable, and efficient analyses for complex separations.

The Fresh Breeze of Chromatography

teknokroma.es

TK Teknokroma[®]
Professionally Friendly

TECHNICAL SPECIFICATIONS

- Dimensions: All standard dimensions
- Long 5, 10, 15, 25
- ID 2.1, 3, 4, 4.6, 10, 21.2
- Porosity: 100 Å, C30 200 Å
- ParticleSize: 1.7 µm, 3 µm, 5 µm, 10 µm (Depends on the bonding phase)
- SolventCompatibility: Wide range of organic and aqueous solvents
- Silanol low activity 99,99%
- Metallic Impurities (Na, Mg, Al, Ca, Fe, Zr, Ti): Less than 10 ppm of each one
- particle substrate: Spherical Silica
- Surface Area: 315 m²/g
- Pore Volume: 0.8 ml/g

Bonding Phase	C8 UE	C8 UET	C8 AQ	C18 UE	C18 UET	C18 AQ	PH Hexyl	BIP	C30	Amino-Sugar	C4	Si	NH2	CN	EP4	PEI	DIOL
Separation Mode	RP	RP	RP	RP	RP	RP	RP	RP	RP	RP	RP	NP	NP	NP	HILIC	HILIC	HILIC
particle substrate	Spherical Silica	Spherical Silica	Spherical Silica	Spherical Silica	Spherical Silica	Spherical Silica	Spherical Silica	Spherical Silica	Spherical Silica	Spherical Silica	Spherical Silica	Spherical Silica	Spherical Silica	Spherical Silica	Spherical Silica	Spherical Silica	Spherical Silica
Carbon Load	11 %	11 %	9 %	16 %	18 %	13 %	14 %	12 %	11 %	3 %	7 %	0 %	4 %	7 %	8 %	10 %	5 %
pH Range	2 to 9	1 to 9	2 to 9	2 to 11	1 to 11	2 to 9	2 to 9	2 to 9	2 to 8	2 to 8	2 to 8	2 to 8	2 to 8	2 to 8	1 to 8	2 to 8	2 to 8
Endcapped	HE	HE	NO	HE	HE	NO	HE	HE	HE	NO	HE	NO	NO	NO	NO	NO	NO
Particle size	1,7-3-5 10 µm	1,7-3-5 10 µm	1,7-3-5 10 µm	1,7-3-5 10 µm	1,7-3-5 10 µm	1,7-3-5 10 µm	1,7-3-5 10 µm	1,7-3-5 10 µm	3-5 10 µm	3-5 µm	3-5 µm	1,7-3-5 10 µm	1,7-3-5 10 µm	1,7-3 5 µm	1,7-3 5 µm	1,7-3 5 µm	1,7-3 5 µm
Pore Diameter	100 Å	100 Å	100 Å	100 Å	100 Å	100 Å	100 Å	100 Å	200 Å	100 Å	100 Å	100 Å	100 Å	100 Å	100 Å	100 Å	100 Å
Surface Area	310 m ² /g	310 m ² /g	310 m ² /g	310 m ² /g	310 m ² /g	310 m ² /g	310 m ² /g	310 m ² /g	310 m ² /g	310 m ² /g	310 m ² /g	310 m ² /g	310 m ² /g	310 m ² /g	310 m ² /g	310 m ² /g	310 m ² /g
Pore Volume	0.8 ml/g	0.8 ml/g	0.8 ml/g	0.8 ml/g	0.8 ml/g	0.8 ml/g	0.8 ml/g	0.8 ml/g	0.8 ml/g	0.8 ml/g	0.8 ml/g	0.8 ml/g	0.8 ml/g	0.8 ml/g	0.8 ml/g	0.8 ml/g	0.8 ml/g
Metallic Impurities (Na, Mg, Al, Ca, Fe, Zr, Ti)	Less than 10 ppm of each one	Less than 10 ppm of each one	Less than 10 ppm of each one	Less than 10 ppm of each one	Less than 10 ppm of each one	Less than 10 ppm of each one	Less than 10 ppm of each one	Less than 10 ppm of each one	Less than 10 ppm of each one	Less than 10 ppm of each one	Less than 10 ppm of each one	Less than 10 ppm of each one	Less than 10 ppm of each one	Less than 10 ppm of each one	Less than 10 ppm of each one	Less than 10 ppm of each one	Less than 10 ppm of each one
USP	L7	L7	L7	L1	L1	L1	L11	L11	L62	L8	L26	L3	L8	L10	-	-	L20

APPLICATIONS

- Pharmaceutical: Precise quantification and profiling of drugs and metabolites
- Environmental: Detection of organic pollutants with high sensitivity.
- Food: Rigorous quality control in food and beverage testing.
- Method Robustness: Suitable for HPLC methods requiring consistent performance under stringent conditions.

The Fresh Breeze of Chromatography

teknokroma.es

Tk Teknokroma®
Professionally Friendly

TOP ORDERED PART NUMBERS

TR-050011	Vela C18 UE HPLC Column 1,7um 50 x 2,1 mm
TR-050031	Vela C18 UE HPLC Column 1,7um 100 x 2,1 mm
TR-050051	Vela C18 UE HPLC Column 1,7um 150 x 2,1 mm
TR-050157	Vela C18 UE HPLC Column 3um 150 x 4,6 mm
TR-050177	Vela C18 UE HPLC Column 3um 250 x 4,6 mm
TR-050257	Vela C18 UE HPLC Column 5um 150 x 4,6 mm
TR-050277	Vela C18 UE HPLC Column 5um 250 x 4,6 mm
TR-052011	Vela C18 UET HPLC Column 1,7um 50 x 2,1 mm
TR-052031	Vela C18 UET HPLC Column 1,7um 100 x 2,1 mm
TR-052051	Vela C18 UET HPLC Column 1,7um 150 x 2,1 mm
TR-052157	Vela C18 UET HPLC Column 3um 150 x 4,6 mm
TR-052177	Vela C18 UET HPLC Column 3um 250 x 4,6 mm
TR-052257	Vela C18 UET HPLC Column 5um 150 x 4,6 mm
TR-052277	Vela C18 UET HPLC Column 5um 250 x 4,6 mm
TR-051011	Vela C18 AQ HPLC Column 1,7um 50 x 2,1 mm
TR-051031	Vela C18 AQ HPLC Column 1,7um 100 x 2,1 mm
TR-051051	Vela C18 AQ HPLC Column 1,7um 150 x 2,1 mm
TR-051157	Vela C18 AQ HPLC Column 3um 150 x 4,6 mm
TR-051177	Vela C18 AQ HPLC Column 3um 250 x 4,6 mm
TR-051257	Vela C18 AQ HPLC Column 5um 150 x 4,6 mm
TR-051277	Vela C18 AQ HPLC Column 5um 250 x 4,6 mm
TR-05C011	Vela C8 UE HPLC Column 1,7um 50 x 2,1 mm
TR-05C031	Vela C8 UE HPLC Column 1,7um 100 x 2,1 mm
TR-05C051	Vela C8 UE HPLC Column 1,7um 150 x 2,1 mm
TR-05C157	Vela C8 UE HPLC Column 3um 150 x 4,6 mm
TR-05C177	Vela C8 UE HPLC Column 3um 250 x 4,6 mm
TR-05C257	Vela C8 UE HPLC Column 5um 150 x 4,6 mm
TR-05C277	Vela C8 UE HPLC Column 5um 250 x 4,6 mm
TR-057011	Vela C8 UET HPLC Column 1,7um 50 x 2,1 mm
TR-057031	Vela C8 UET HPLC Column 1,7um 100 x 2,1 mm
TR-057051	Vela C8 UET HPLC Column 1,7um 150 x 2,1 mm
TR-057157	Vela C8 UET HPLC Column 3um 150 x 4,6 mm
TR-057177	Vela C8 UET HPLC Column 3um 250 x 4,6 mm
TR-057257	Vela C8 UET HPLC Column 5um 150 x 4,6 mm
TR-057277	Vela C8 UET HPLC Column 5um 250 x 4,6 mm
TR-05E011	Vela C8 AQ HPLC Column 1,7um 50 x 2,1 mm
TR-05E031	Vela C8 AQ HPLC Column 1,7um 100 x 2,1 mm
TR-05E051	Vela C8 AQ HPLC Column 1,7um 150 x 2,1 mm
TR-05E157	Vela C8 AQ HPLC Column 3um 150 x 4,6 mm
TR-05E177	Vela C8 AQ HPLC Column 3um 250 x 4,6 mm
TR-05E257	Vela C8 AQ HPLC Column 5um 150 x 4,6 mm
TR-05E27	Vela C8 AQ HPLC Column 5um 250 x 4,6 mm

The *Fresh Breeze* of Chromatography

teknokroma.es

TK Teknokroma®
Professionally Friendly