

3. Optimapak

Optimapak is designed to meet the highest demand in HPLC, SFC and SMB from analytical to process scale. Rigorous quality control of physical properties and strict chromatographic tests for inertness and selectivity, contribute to the production of Optimapak C18 with an outstanding reproducibility and long column lifetime.

Advantages of optimapak silica

The uniqueness of optimapak high performance spherical silica is the combination of:

- high surface area
- mechanical strength

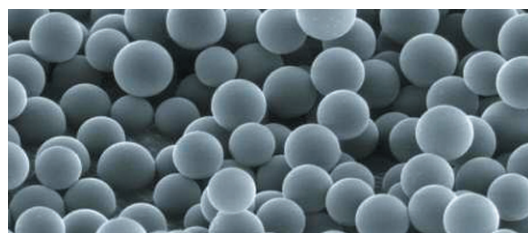
Other outstanding properties are:

- chemical purity
- chemical stability
- optimaized surface properties
- well-defined pore structure

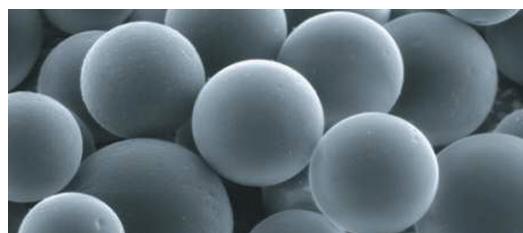
Optimapak HPLC silica consists of perfectly spherical, totally porous particles, a narrow particle size distribution for high efficiency, low pressure drop and best total economy in chromatographic purifications.

- Differentiated Phases: C18, C8, NH₂, Sil
- Specification: Spherical silica, Monomerically bonded, End capped, 100 Å pore size
- Format: Analytical, Semi-prep

- SEM photographs of optimapak 3.5 µm and 10 µm silica gels



3.5 µm Silica



10 µm Silica

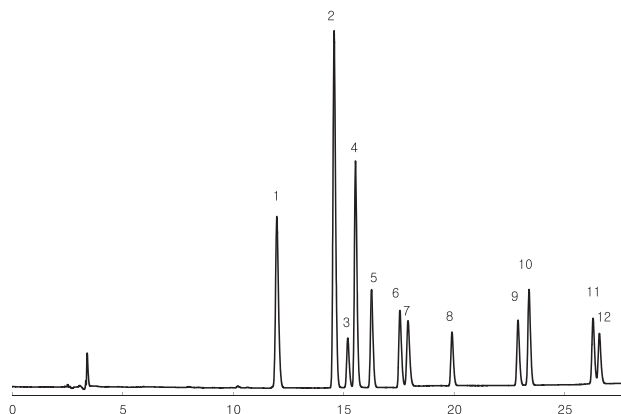


Optimapak C18

Optimapak C18 offers all of the outstanding chromatographic benefits of Hector M C18 with the added benefit of high carbon loading. Optimapak C18 silica particles designed for high mechanical stability, they provide long column lifetime and good resolution.

Specification

- Particle size: 3.5, 5, 10 μm
- Pore size: 100 \AA
- Bonded phase: Octadecyl Groups
- Carbon contents: 20 %
- USP Code: L1
- Usable pH range: 2-8



Column : Optimapak C18
 Dimension : 250 X 4.6 mm
 Mobile Phase : A: 0.1% Phosphoric acid
 B: ACN

Gradient :	Time	0	8	20	30	35
	% B	15	25	40	60	61

Flow rate : 1.0 mL/min
 Detection : UV 220 nm
 Temperature : 25 °C
 Injection Volume : 5 μL

Sample : 1. Benzyl alcohol
 2. Phenoxy ethanol
 3. Sorbic acid
 4. Benzoic acid
 5. Methyl Paraben
 6. Salicylic acid
 7. Dehydroacetic acid
 8. Ethyl paraben
 9. iso- Propyl paraben
 10. Propyl paraben
 11. iso- Butyl paraben
 12. Butyl paraben

Product List

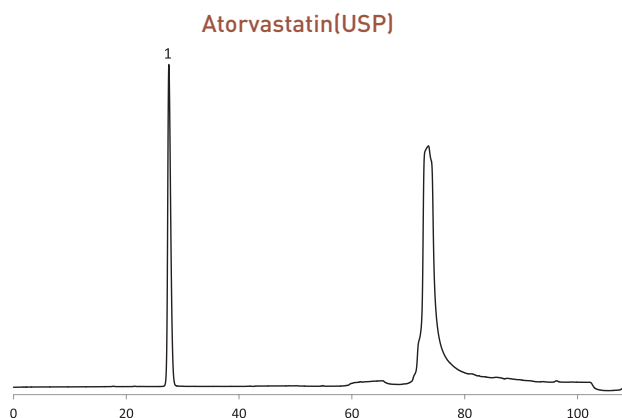
Particle size (μm)	Length (mm)	2.1 mm ID	3.0 mm ID	3.9 mm ID	4.6 mm ID	7.8 mm ID	10.0 mm ID	21.2 mm ID
3.5	50	OP C18-31000521	OP C18-31000530	OP C18-31000539	OP C18-31000546	-	-	-
	70	OP C18-31000721	OP C18-31000730	OP C18-31000739	OP C18-31000746	-	-	-
	100	OP C18-31001021	OP C18-31001030	OP C18-31001039	OP C18-31001046	-	-	-
	150	OP C18-31001521	OP C18-31001530	OP C18-31001539	OP C18-31001546	-	-	-
	250	OP C18-31002521	OP C18-31002530	OP C18-31002539	OP C18-31002546	-	-	-
5	50	OP C18-51000521	OP C18-51000530	OP C18-51000539	OP C18-51000546	-	OP C18-510005100	OP C18-510005200
	70	OP C18-51000721	OP C18-51000730	OP C18-51000739	OP C18-51000746	-	OP C18-510007100	OP C18-510007200
	100	OP C18-51001021	OP C18-51001030	OP C18-51001039	OP C18-51001046	-	OP C18-510010100	OP C18-510010200
	150	OP C18-51001521	OP C18-51001530	OP C18-51001539	OP C18-51001546	OP C18-51001578	OP C18-510015100	OP C18-510015200
	250	OP C18-51002521	OP C18-51002530	OP C18-1002539	OP C18-51002546	OP C18-51002578	OP C18-510025100	OP C18-510025200
10	100	-	-	-	OP C18-101001046	-	OP C18-1010010100	OP C18-1010010200
	150	-	-	-	OP C18-101001546	OP C18-101001578	OP C18-1010015100	OP C18-1010015200
	250	-	-	-	OP C18-101002546	OP C18-101002578	OP C18-1010025100	OP C18-1010025200

Optimapak C8

Optimapak C8 provides rapid analysis of highly hydrophobic compounds. Optimapak C8 is a good alternative to ODS columns when less retention is desired.

Specification

- Particle size: 3.5, 5, 10 μm
- Pore size: 100 \AA
- Bonded phase: Octyl Groups
- Carbon contents: 12 %
- USP Code: L1
- Usable pH range: 2-8



Column : Optimapak C8 5 μm

Dimension : 250 X 4.6 mm

Mobile Phase : Buffer: 3.9 g/L of ammonium acetate in water(pH 5.1 with acetic acid)

Solution A: ACN / THF / Buffer = 23 / 12 / 65

Solution B: ACN / THF / Buffer = 61 / 12 / 27

Time	0	40	70	85	100	105	115
% B	0	0	80	100	100	0	0

Flow rate : 1.5 mL/min

Detection : UV 244 nm

Temperature : 35 $^{\circ}\text{C}$

Injection Volume : 20 μL

Sample : 1. Atorvastatin Calcium

Product List

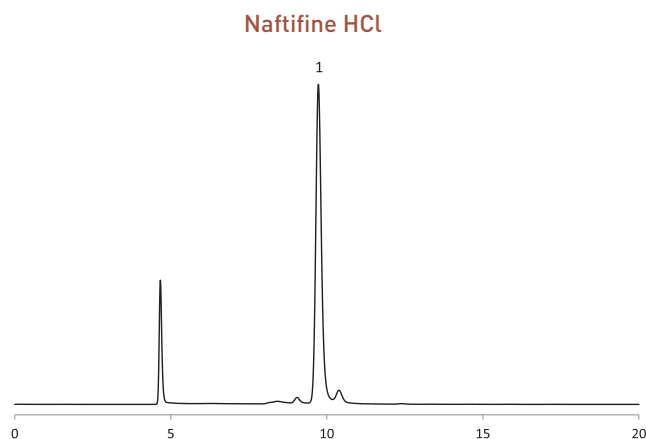
Particle size (μm)	Length (mm)	2.1 mm ID	3.0 mm ID	3.9 mm ID	4.6 mm ID	7.8 mm ID	10.0 mm ID	21.2 mm ID
3.5	50	OP C8-31000521	OP C8-31000530	OP C8-31000539	OP C8-31000546	-	-	-
	70	OP C8-31000721	OP C8-31000730	OP C8-31000739	OP C8-31000746	-	-	-
	100	OP C8-31001021	OP C8-31001030	OP C8-31001039	OP C8-31001046	-	-	-
	150	OP C8-31001521	OP C8-31001530	OP C8-31001539	OP C8-31001546	-	-	-
	250	OP C8-31002521	OP C8-31002530	OP C8-31002539	OP C8-31002546	-	-	-
5	50	OP C8-51000521	OP C8-51000530	OP C8-51000539	OP C8-51000546	-	OP C8-510005100	OP C8-510005200
	70	OP C8-51000721	OP C8-51000730	OP C8-51000739	OP C8-51000746	-	OP C8-510007100	OP C8-510007200
	100	OP C8-51001021	OP C8-51001030	OP C8-51001039	OP C8-51001046	-	OP C8-510010100	OP C8-510010200
	150	OP C8-51001521	OP C8-51001530	OP C8-51001539	OP C8-51001546	OP C8-51001578	OP C8-510015100	OP C8-510015200
	250	OP C8-51002521	OP C8-51002530	OP C8-1002539	OP C8-51002546	OP C8-51002578	OP C8-510025100	OP C8-510025200
10	100	-	-	-	OP C8-101001046	-	OP C8-1010010100	OP C8-1010010200
	150	-	-	-	OP C8-101001546	OP C8-101001578	OP C8-1010015100	OP C8-1010015200
	250	-	-	-	OP C8-101002546	OP C8-101002578	OP C8-1010025100	OP C8-1010025200

Optimapak Sil

Optimapak Sil is a pure silica gel column available in normal phase mode. High performance spherical silica for analytical to process scale liquid chromatography. Optimapak Sil is manufactured using monofunctional silanes, and is fully end-capped. This gives high reproducibility and chemical stability.

Specification

- Particle size: 3.5, 5, 10 µm
- Pore size: 100 Å
- USP Code: L3
- Usable pH range: 2-8



Column : Optimapak Sil 5 µm
 Dimension : 250 X 4.6mm
 Mobile phase : Hexane / Ethanol = 2 / 1 (0.5 % perchloric acid)
 Flow rate : 0.8 ml/min
 Detection : UV 282nm
 Temperature : 40 °C
 Injection Volume : 10µL
 Sample : 1. Naftifine HCl

Product List

Particle size (µm)	Length (mm)	2.1 mm ID	3.0 mm ID	3.9 mm ID	4.6 mm ID	7.8 mm ID	10.0 mm ID	21.2 mm ID
3.5	50	OP Sil-M31000521	OP Sil-M31000530	OP Sil-M31000539	OP Sil-M31000546	-	-	-
	70	OP Sil-M31000721	OP Sil-M31000730	OP Sil-M31000739	OP Sil-M31000746	-	-	-
	100	OP Sil-M31001021	OP Sil-M31001030	OP Sil-M31001039	OP Sil-M31001046	-	-	-
	150	OP Sil-M31001521	OP Sil-M31001530	OP Sil-M31001539	OP Sil-M31001546	-	-	-
	250	OP Sil-M31002521	OP Sil-M31002530	OP Sil-M31002539	OP Sil-M31002546	-	-	-
5	50	OP Sil-M51000521	OP Sil-M51000530	OP Sil-M51000539	OP Sil-M51000546	-	OP Sil-M510005100	OP Sil-M510005200
	70	OP Sil-M51000721	OP Sil-M51000730	OP Sil-M51000739	OP Sil-M51000746	-	OP Sil-M510007100	OP Sil-M510007200
	100	OP Sil-M51001021	OP Sil-M51001030	OP Sil-M51001039	OP Sil-M51001046	-	OP Sil-M510010100	OP Sil-M510010200
	150	OP Sil-M51001521	OP Sil-M51001530	OP Sil-M51001539	OP Sil-M51001546	OP Sil-M51001578	OP Sil-M510015100	OP Sil-M510015200
	250	OP Sil-M51002521	OP Sil-M51002530	OP Sil-M51002539	OP Sil-M51002546	OP Sil-M51002578	OP Sil-M510025100	OP Sil-M510025200
10	100	-	-	-	OP Sil-M101001046	-	OP Sil-M1010010100	OP Sil-M1010010200
	150	-	-	-	OP Sil-M101001546	OP Sil-M101001578	OP Sil-M1010015100	OP Sil-M1010015200
	250	-	-	-	OP Sil-M101002546	OP Sil-M101002578	OP Sil-M1010025100	OP Sil-M1010025200

Optimapak NH2

Optimapak NH2 performs a sharp peaks, and high reproducible results with exceptional stability and durability that will maintain performance over the lifetime of the method.

Specification

- Particle size: 3.5, 5, 10 μm
- Pore size: 100 \AA
- Bonded phase: Aminopropyl Groups
- Carbon contents: 1.7 %
- USP Code: L8
- Usable pH range: 2-8

Product List

Particle size (μm)	Length (mm)	2.1 mm ID	3.0 mm ID	3.9 mm ID	4.6 mm ID	7.8 mm ID	10.0 mm ID	21.2 mm ID
3.5	50	OP NH2-M31000521	OP NH2-M31000530	OP NH2-M31000539	OP NH2-M31000546	-	-	-
	70	OP NH2-M31000721	OP NH2-M31000730	OP NH2-M31000739	OP NH2-M31000746	-	-	-
	100	OP NH2-M31001021	OP NH2-M31001030	OP NH2-M31001039	OP NH2-M31001046	-	-	-
	150	OP NH2-M31001521	OP NH2-M31001530	OP NH2-M31001539	OP NH2-M31001546	-	-	-
	250	OP NH2-M31002521	OP NH2-M31002530	OP NH2-M31002539	OP NH2-M31002546	-	-	-
5	50	OP NH2-M51000521	OP NH2-M51000530	OP NH2-M51000539	OP NH2-M51000546	-	OP NH2-M510005100	OP NH2-M510005200
	70	OP NH2-M51000721	OP NH2-M51000730	OP NH2-M51000739	OP NH2-M51000746	-	OP NH2-M510007100	OP NH2-M510007200
	100	OP NH2-M51001021	OP NH2-M51001030	OP NH2-M51001039	OP NH2-M51001046	-	OP NH2-M510010100	OP NH2-M510010200
	150	OP NH2-M51001521	OP NH2-M51001530	OP NH2-M51001539	OP NH2-M51001546	OP NH2-M51001578	OP NH2-M510015100	OP NH2-M510015200
	250	OP NH2-M51002521	OP NH2-M51002530	OP NH2-M51002539	OP NH2-M51002546	OP NH2-M51002578	OP NH2-M510025100	OP NH2-M510025200
10	100	-	-	-	OP NH2-M101001046	-	OP NH2-M1010010100	OP NH2-M1010010200
	150	-	-	-	OP NH2-M101001546	OP NH2-M101001578	OP NH2-M1010015100	OP NH2-M1010015200
	250	-	-	-	OP NH2-M101002546	OP NH2-M101002578	OP NH2-M1010025100	OP NH2-M1010025200