

- Highly pure, high surface area silica
- Excellent reproducibility for normal phase chromatography
- Rigorously tested to ensure quality

## Thermo Scientific Synchronis Silica HPLC Columns

Consistent, predictable separations,  
Column after column, time after time

### Specifications

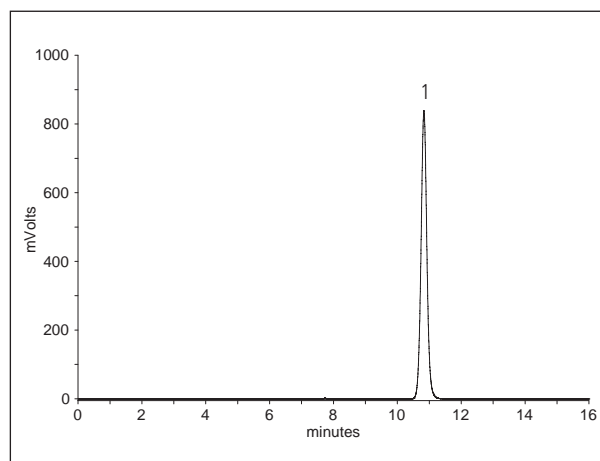
<b>Particle size</b>	1.7 $\mu\text{m}$ , 5 $\mu\text{m}$	<b>Carbon load</b>	–
<b>Pore size</b>	100 Å	<b>Endcapped</b>	–
<b>Surface area</b>	320 $\text{m}^2/\text{g}$	<b>USP classification</b>	L3
<b>pH range</b>	2 - 8		



### High efficiency columns for normal phase chromatography

Unbonded, highly pure base deactivated silica media that is the backbone of the Synchronis™ range of columns. With a high surface area, Synchronis Silica columns are a powerful and efficient tool for the chromatography of non-polar and moderately polar organic compounds by normal phase chromatography. For high speed, high efficiency separations, Synchronis Silica columns are available with 1.7  $\mu\text{m}$  particle size.

#### Application: Cetirizine (USP)



Column: Synchronis Silica, 5 $\mu\text{m}$ , 250mm x 4.6mm

Mobile phase: Acetonitrile:Water:Sulfuric Acid (93:6.6:0.4)

Flow rate: 1.0 mL/min

Temperature: 30°C

Detection: 230 nm

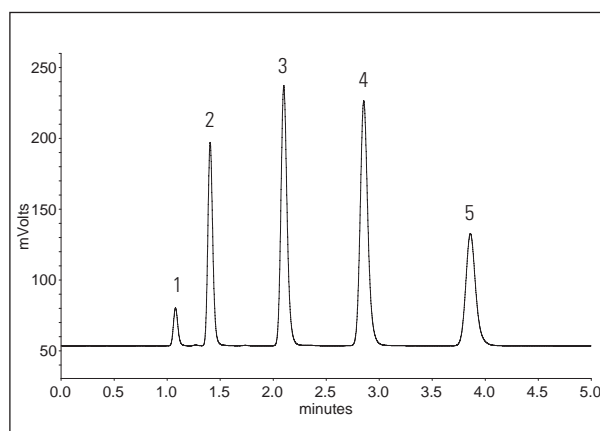
Injection volume: 10  $\mu\text{L}$

1. Cetirizine

Parameter	USP Specification	Measured (6 replicate injections)
Tailing factor	< 2.0	1.05
%RSD Peak area	< 2%	0.17%

Description	Particle size	Length (mm)	2.1 mm ID	3 mm ID	4 mm ID	4.6 mm ID
Synchronis Silica	1.7 µm	30	97002-032130	–	–	–
		50	97002-052130	97002-053030	–	97002-054630
		100	97002-102130	97002-103030	–	–
	5 µm	30	97005-032130	97005-033030	97005-034030	97005-034630
		50	97005-052130	97005-053030	97005-054030	97005-054630
		100	97005-102130	97005-103030	97005-104030	97005-104630
Drop-in guard cartridges (4/pk)	5 µm	10	97005-012101	97005-013001	97005-014001	–

## Normal phase retention and selectivity



Column: Synchronis Silica, 5µm, 150mm x 4.0mm

Mobile phase: Iso-octane:Ethanol:  
Water (85:14.7:0.3)

Flow rate: 1.25 mL/min

Temperature: 40°C

Detection: 254 nm

Injection volume: 2 µL

1. Toluene
2. Nitrobenzene
3. o-nitroaniline
4. m-nitroaniline
5. p-nitroaniline

## Consistent, predictable separations, Column after column, time after time

Synchronis HPLC columns are manufactured, packed and tested in ISO9000 accredited facilities. Each lot of silica is tested for the physical properties of the silica support and only released for production if it meets the stringent test specifications.

Each bonded lot of chromatographic packing material is rigorously tested for primary and secondary interactions with the bonded phase.

New, enhanced, automated packing methods drive consistency even further and every column is individually tested to ensure that it meets the required quality.

These extensive testing and quality control procedures ensure the delivery of a consistent product, column after column.

For more information, visit [www.thermoscientific.com/Synchronis](http://www.thermoscientific.com/Synchronis)

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