

Thermo Scientific Hypersil GOLD HPLC Columns

Outstanding peak shape for your separations

- Excellent peak symmetry
- Narrow peaks for outstanding efficiency
- Increased sensitivity and improved resolution
- Variety of chemistries
- 1.9 to 12µm particles



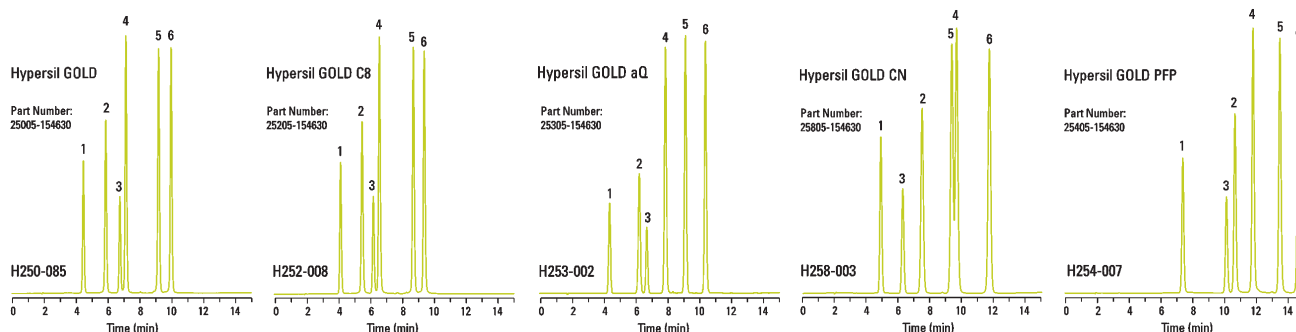
Thermo Scientific™ Hypersil GOLD™ columns are exceptionally reproducible for reliable chromatography, column after column. This allows the user to be confident that assays developed with Hypersil GOLD columns will be robust and stable for the life of the assay, making them an ideal choice for new method development. Built on more than 35 years of experience in product development and manufacturing of HPLC media and columns, we successfully continue to extend the capabilities of this state-of-the-art family of columns, designed for improved chromatography. Hypersil GOLD columns are manufactured in ISO 9001:2008 accredited laboratories under strict protocols using a robust manufacturing procedure and extensive quality control testing.

Improved Selectivity, Resolution and Productivity

Hypersil GOLD columns are available in an array of chemistries to optimize separations and maximize productivity:

- **Hypersil GOLD** offers outstanding peak shape using generic gradients with C18 selectivity
- **Hypersil GOLD C8** offers similar selectivity but with less retention
- **Hypersil GOLD aQ** can be used for challenging reverse phase separations employing highly aqueous mobile phases
- **Hypersil GOLD PFP** can offer alternative selectivity in reverse phase applications
- **Hypersil GOLD Phenyl** offers alternative selectivity and is particularly suitable for aromatic and moderately polar compounds
- **Hypersil GOLD CN** can be used for both reversed and normal phase separations
- **Hypersil GOLD C4** has short alkyl chain length, low hydrophobicity column for less retention
- **Hypersil GOLD Amino** demonstrates excellent chromatographic properties in three modes: weak anion exchange, reversed phase and normal phase.
- **Hypersil GOLD AX** can be used to separate proteins, peptides, other anionic species and polar molecules
- **Hypersil GOLD SAX** is a highly stable silica-based quarternary amine strong anion exchange column, designed for aqueous mobile phase
- **Hypersil GOLD Silica** is a powerful and efficient tool in the chromatography of non-polar and moderately polar organic compounds by normal phase
- **Hypersil GOLD HILIC** columns retain polar analytes that are problematic using reversed phase columns

These chemistries offer alternative selectivities in the same column family, providing enhanced retention or changes in elution order for flexibility in method development. Each phase is made with the same care and attention to quality that defines all Thermo Scientific columns.



Hypersil GOLD, 5µm, 150 x 4.6mm

Mobile Phase: A: H₂O + 0.1% Formic acid
B: MeOH + 0.1% Formic acid

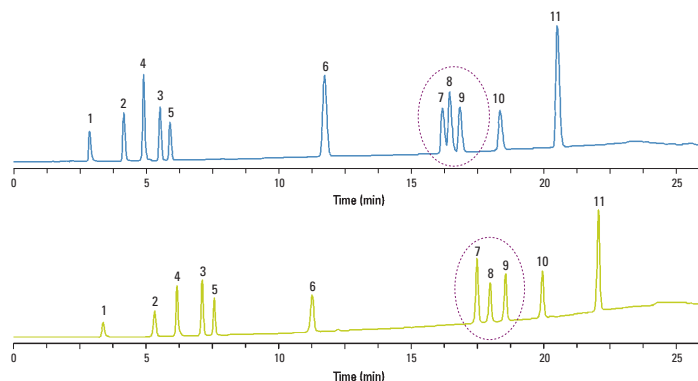
Gradient: 20 to 50% B in 15 min

Flow Rate: 1mL/min

Detection: UV at 280nm

Temperature: 25°C

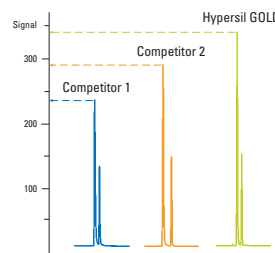
Sample:
1. Catechin
2. Epigallocatechin Gallate
3. Epicatechin
4. Gallic acid
5. Epicatechin Gallate
6. Catechin Gallate



Competitor 18 column

Hypersil GOLD column

Resolution of analytes is improved using a Hypersil GOLD column.
Data courtesy of M. Euerby, AstraZeneca, Charmwood, UK.



The improved peak symmetry provides additional peak height to increase sensitivity of analysis of trace components.

Solutions for High Throughput Screening, Capillary to Preparative Analysis

Hypersil GOLD columns are available in particle sizes and column designs to meet all separation needs, including improved resolution, enhanced sensitivity and faster analyses. From 1.9µm to 12µm particles, Hypersil GOLD columns offer chromatographic solutions with consistent separations and performance. Specialized hardware includes Thermo Scientific™ KAPPA™ capillary columns, PicoFrit™ and IntegraFrit nanobore columns, Thermo Scientific™ Javelin™ HTS direct-connection columns and Thermo Scientific™ DASH™ HTS columns, designed for high throughput screening.

Improved Sensitivity

Good peak shape means greater sensitivity. When peaks exhibit tailing, peak height is reduced causing the sensitivity of the analysis to be compromised. The more symmetrical the chromatographic peaks, the more confidence you derive from your data. Using Hypersil GOLD columns, peak height is enhanced and peak integration calculations are optimized.

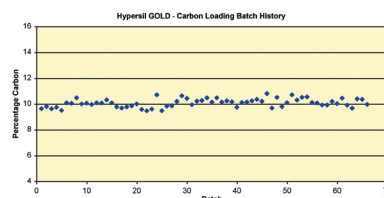
Enhanced peak height can be particularly critical when low concentrations of an analyte are present, for example in an impurity assay. The increase in sensitivity gained with the Hypersil GOLD columns over competitor C18 columns is illustrated above.

Enhanced Resolution

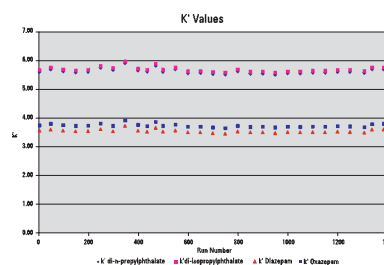
Robust assay development requires a clear definition of resolution expectations. Narrow symmetrical chromatographic peaks ensure that optimum resolution is achieved. Obtaining narrow peak widths is especially challenging for basic pharmaceutical compounds. The figure above shows how Hypersil GOLD columns provide excellent resolution between critical pairs, aiding in separation of closely related species.

pH Stability

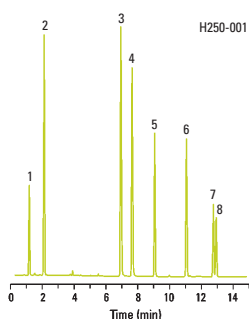
Hypersil GOLD columns are well suited to extended pH applications. Hypersil GOLD columns have been shown to produce robust assays at high pH. At low pH, excellent column stability and reproducibility are illustrated.



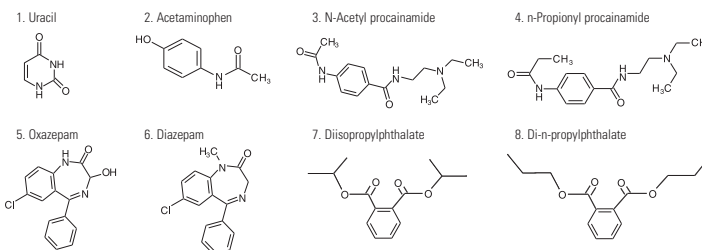
Excellent reproducibility is illustrated with the percent carbon on the Hypersil GOLD media



Stability of Hypersil GOLD columns at low pH. No loss of retention after 28L of mobile phase in 19.5 days of analysis.



Dimensions: 5µm, 150 x 4.6mm
Part Number: 25005-154630
Mobile Phase: A: 0.1% ammonia pH 10.6
B: MeOH + 0.1% ammonia
Gradient: 5 – 100% B in 15 min
Flow: 1.0mL/min
Injection: 10µL
Detection: UV at 254nm
Temperature: 30°C

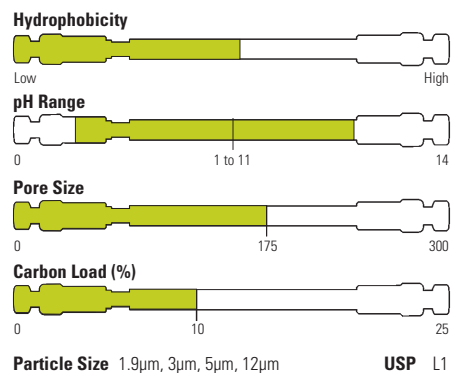


High pH stability assay (pH 10.6) of Hypersil GOLD columns

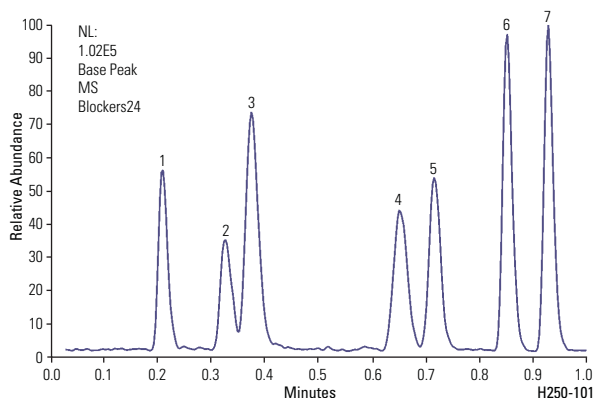
Hypersil GOLD

Endcapped, ultrapure, silica-based columns with exceptional peak shape and resolution for HPLC and LC/MS

- Significant reduction in peak tailing while retaining C18 selectivity
- Excellent resolution, efficiency and sensitivity
- Confidence in the accuracy and quality of analytical data



Seven β -blockers in 1 minute



Column: 1.9µm Hypersil GOLD 20 x 2.1mm

Part Number: 25002-022130

Mobile phase: A – H₂O+0.1%formic acid

B – MeCN+0.1%formic acid

Gradient: 15 to 100% B in 1min

Flow rate: 0.5ml/min

Temperature: 30°C

Detection: +ESI

System: Thermo Scientific™Surveyor™ MSQ

Analytes:

1. Atenolol

2. Nadolol

3. Pindolol

4. Timolol

5. Metoprolol

6. Oxprenolol

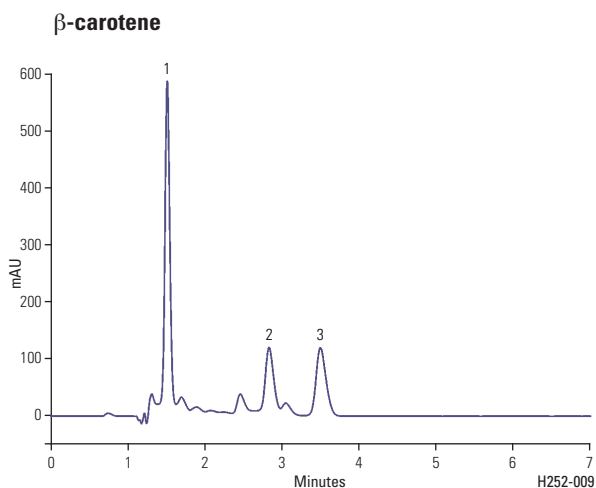
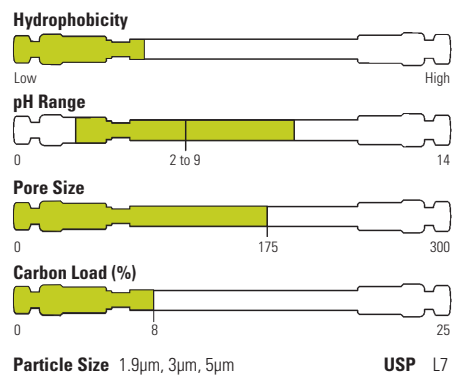
7. Propranolol



Hypersil GOLD C8

Recommended for analytes with medium hydrophobicity or when a less hydrophobic phase is required to obtain optimum retention

- Similar selectivity to C18 columns but with reduced retention
- Lower hydrophobicity, allowing compounds to elute quicker
- Faster separations
- Excellent peak shape
- High efficiency
- Outstanding sensitivity



Column: Hypersil GOLD C8, 5µm, 150 x 4.6mm

Part Number: 25205-154630

Mobile phase: MeOH

Flow rate: 1.5mL/min

Temperature: 25°C

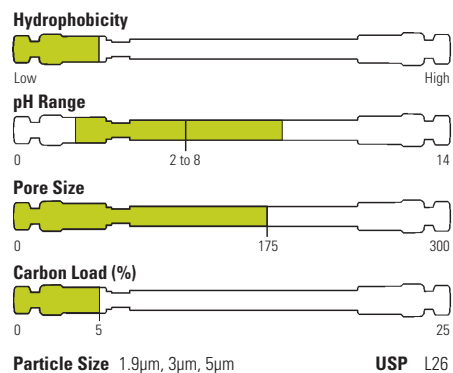
Detection: UV @ 450 nm

Analytes: 1. Lutein
2. Lycopene
3. β-Carotene

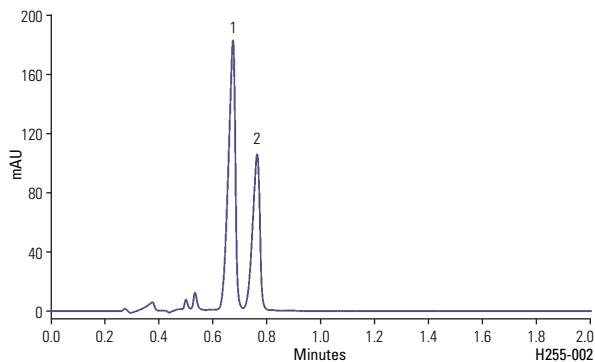
Hypersil GOLD C4

Lower hydrophobicity than C18 or C8 recommended for very hydrophobic analytes

- Lower hydrophobicity
- Faster separations
- Excellent peak shape
- High efficiency
- Outstanding sensitivity



Fatty acids



Column: Hypersil GOLD C4 1.9µm, 100 x 2.1mm

Part Number: 25502-102130

Mobile phase: H₂O / MeCN (20:80)

Flow rate: 0.55mL/min

Temperature: 30°C

Detection: 200 nm

Injection volume: 1µL

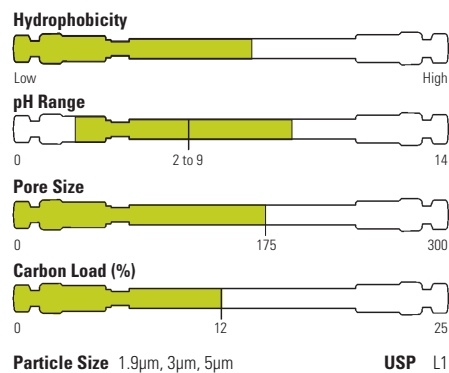
Sample: 1. Linolenic acid

2. Linoleic acid

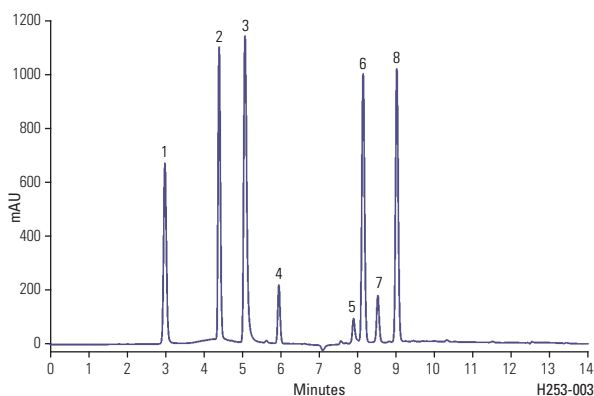
Hypersil GOLD aQ

Hypersil GOLD aQ polar endcapped C18 columns provide a controlled interaction mechanism by which polar analytes can be retained and resolved

- Polar endcapped C18 phase for alternative selectivity
- Retention and resolution of polar analytes
- Excellent peak shape
- Stable in 100% aqueous mobile phases



Water soluble vitamins



Column: Hypersil GOLD aQ, 5µm, 150 x 4.6mm
Part Number: 25305-154630

Mobile phase: A: 50 mM KH₂PO₄, pH 3.5
B: MeOH

Gradient: 0 – 100% B in 15 min

Flow Rate: 1mL/min

Detection: UV @ 205nm

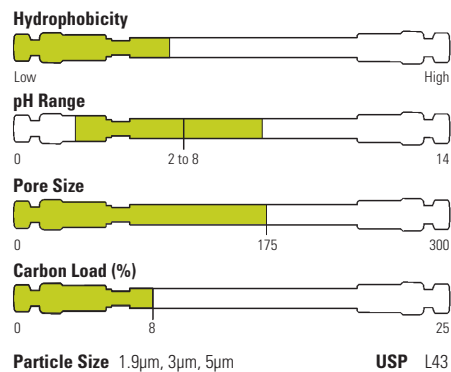
Sample:

1. Vitamin B1 (thiamine)
2. Vitamin B6 (pyridoxine)
3. Vitamin B3 (nicotinamide)
4. Vitamin B5 (pantothenic acid)
5. Folic Acid
6. Vitamin B12 (cyanocobalamin)
7. Vitamin H (biotin)
8. Vitamin B2 (riboflavin)

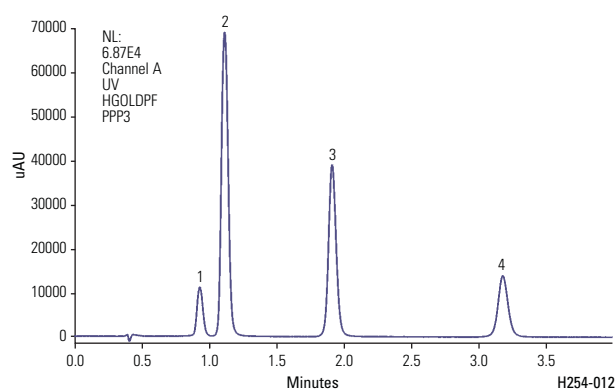
Hypersil GOLD PFP

Introduction of a fluorine group into the stationary phase causes significant changes in solute-stationary phase interaction

- The fluorine atoms around the phenyl ring enhance pi-pi interactions with aromatic molecules
- Alternative selectivity to C18
- Extra retention for halogenated species
- Selectivity for non-halogenated polar compounds
- Excellent peak shape and sensitivity



Polyphenols



Column: Hypersil GOLD PFP 1.9µm, 50 x 2.1mm
Part Number: 25402-052130

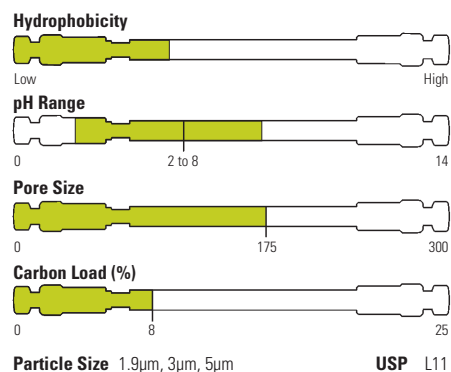
Mobile phase:	0.1% Acetic Acid
Flow rate:	0.5mL/min
Temperature:	25°C
Detection:	UV @ 280nm (2µL Flow Cell)
Injection Volume:	0.5µL
Sample:	1. Pyrogallol 2. Hydroquinone 3. Resorcinol 4. Phenol



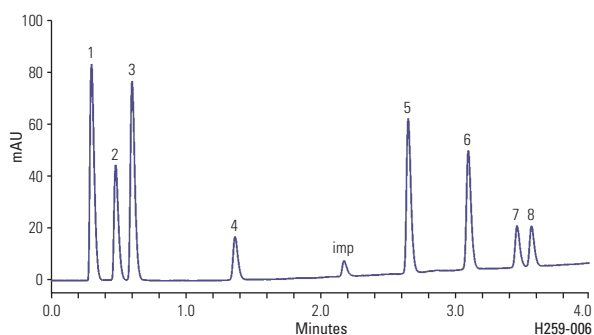
Hypersil GOLD Phenyl

Contains a C4 linker which allows for superior alignment of the phenyl ring with aromatic molecules

- Enhanced pi-pi interactions with aromatics
- Moderate hydrophobicity
- Outstanding peak shape and sensitivity



Antidepressants



Column: Hypersil GOLD Phenyl
1.9µm, 50 x 2.1mm

Part Number: 25902-052130

Mobile phase: A – 0.1% Formic acid

B – 0.1% Formic acid in MeCN

Gradient: 10 – 60% B in 3.4mins, 60 – 90% B in 0.24 min

Flow rate: 0.5mL/min

Temperature: 60°C

Injection Volume: 0.7µL

Detection: UV @ 225 and 254 nm

Analytes:

1. Uracil

2. Acetaminophen

3. p-Hydroxybenzoic acid

4. o-Hydroxybenzoic acid

5. Oxazepam

6. Diazepam

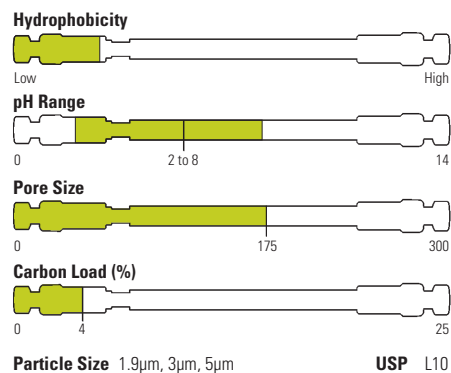
7. Di-isopropyl phthalate

8. Di-n-propyl phthalate

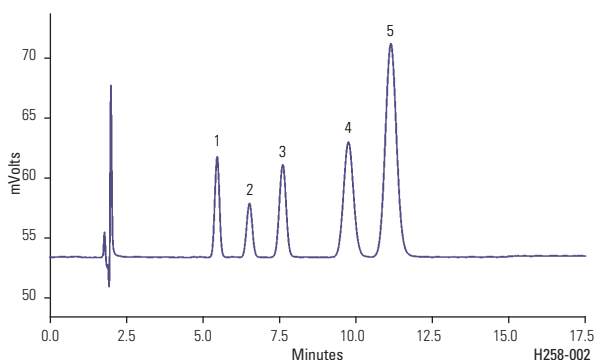
Hypersil GOLD CN

Hypersil GOLD CN columns can be used for both normal phase and reversed phase separations

- Provide alternative selectivity with lower hydrophobicity
- Excellent peak shape
- Outstanding sensitivity
- Less retention for faster analysis



Organic acids



Column: Hypersil GOLD CN, 5µm, 150 x 4.6mm
Part Number: 25805-154630

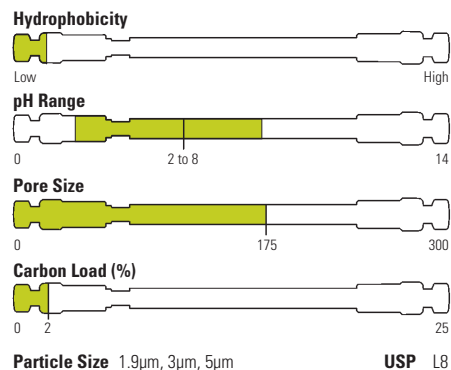
Mobile Phase:	A: 25 mM KH ₂ PO ₄ pH2 B: MeOH
Isocratic:	95% A: 5% B
Flow Rate:	1.5mL/min
Temperature:	25°C
Detection:	UV @ 230nm
Sample:	1. 4-Fluorobenzoic 2. o-Toluic Acid 3. p-Toluic Acid 4. 2,4,6-Trimethylbenzoic Acid 5. 2,5-Dimethylbenzoic Acid



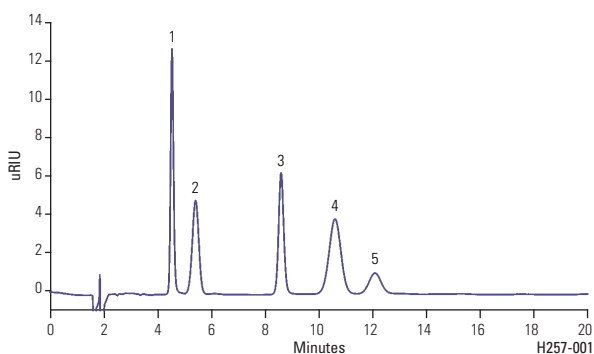
Hypersil GOLD Amino

A high performance aminopropyl phase that gives excellent chromatographic properties in three modes: weak anion exchange, reversed phase and normal phase

- Retains anions and organic acids in weak anion exchange
- Excellent for carbohydrate analysis in reversed phase
- Alternative selectivity to silica columns in normal phase chromatography
- Outstanding peak shape and sensitivity



Sugars



Column: Hypersil GOLD Amino, 5µm, 150 x 4.6mm

Part Number: 25705-154630

Mobile Phase: MeCN/Water (80:20)

Flow Rate: 1.2mL/min

Temperature: 35°C

Detection: RI

Injection volume: 20 µL

Sample:

1. Fructose

2. Glucose

3. Sucrose

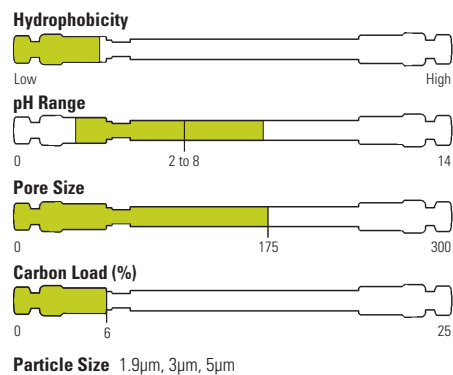
4. Maltose

5. Lactose

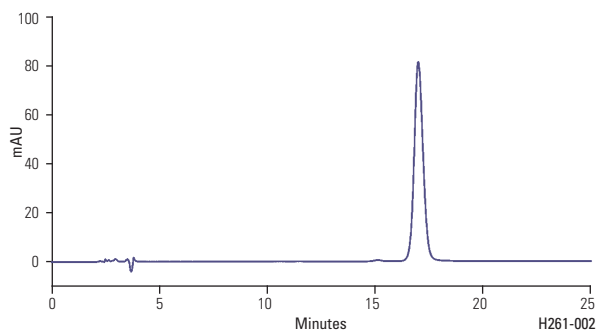
Hypersil GOLD AX

A novel polymeric amine ligand bonded to highly pure base deactivated silica

- Weak anion exchange phase for multiple charged species
- Suitable for HILIC retention and separation of highly polar molecules
- Higher efficiency than polymer based ion exchange columns
- Outstanding peak shape and selectivity



Vitamin C



Column: Hypersil GOLD AX, 5µm, 100 x 4.6mm

Part Number: 26105-104630

Mobile Phase: 100 mM Ammonium Acetate pH 6.8/
MeCN (30:70)

Flow Rate: 0.5mL/min

Temperature: 30°C

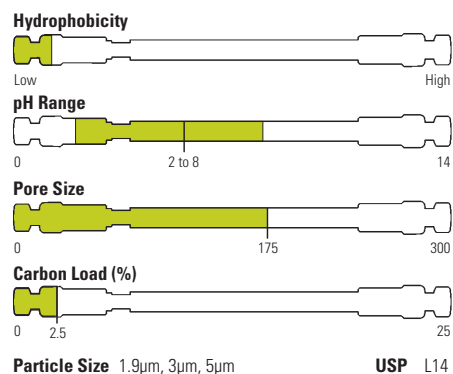
Detection: UV @ 240nm

Injection volume: 50µL

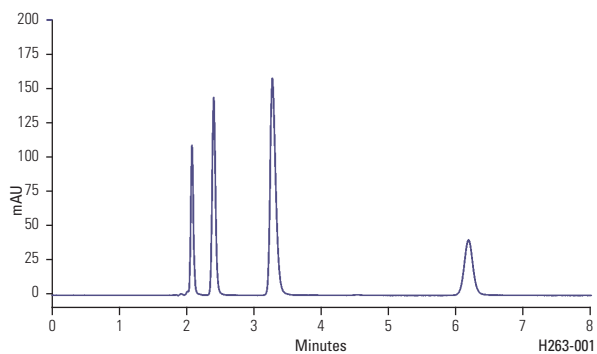
Hypersil GOLD SAX

A highly stable quaternary amine strong anion exchange column for aqueous and low pH mobile phases

- High stability to aqueous and low pH mobile phases
- Ideally suited to the analysis of smaller organic molecules including nucleotides and organic acids
- Outstanding peak shape and sensitivity



Monophosphates



Column: Hypersil GOLD SAX, 5µm, 150 x 4.6mm

Part Number: 26105-154630

Mobile Phase: Aqueous KH_2PO_4 (50 mM, pH 3)

Flow Rate: 1.0 mL min⁻¹

Temperature: 40°C

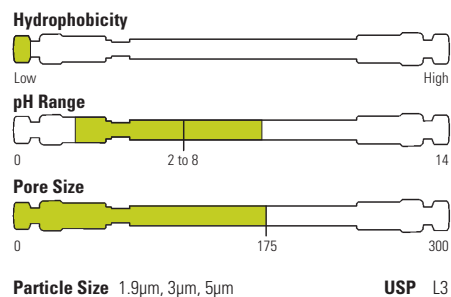
Detection: UV @ 254nm

Injection volume: 10µL

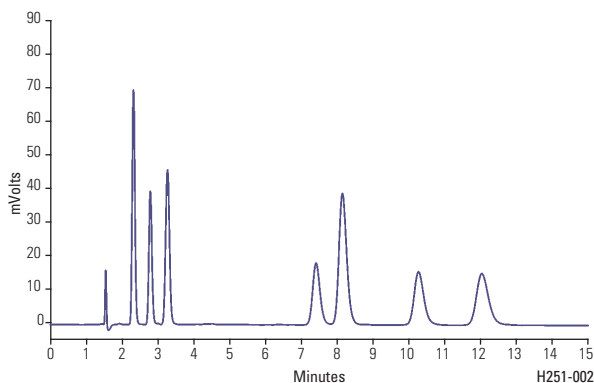
Hypersil GOLD Silica

Unbonded, highly pure base deactivated silica media that is the backbone of the Hypersil GOLD range of columns

- Highly pure base deactivated silica media
- Outstanding peak shape and sensitivity



Steroids



Column: Hypersil GOLD Silica, 5µm, 150 x 4.6mm

Part Number: 25105-154630

Mobile Phase: 19:1 (v/v) n-C₆H₁₄/EtOH

Flow Rate: 1.5mL min⁻¹

Temperature: 30°C

Detection: UV @ 254nm

Injection volume: 5µL

Sample: 1. Progesterone

2. 21-Hydroxyprogesterone-21-acetate

3. 17- α -Hydroxyprogesterone

4. Cortisone

5. 11- α -Hydroxyprogesterone

6. Corticosterone

7. Hydrocortisone

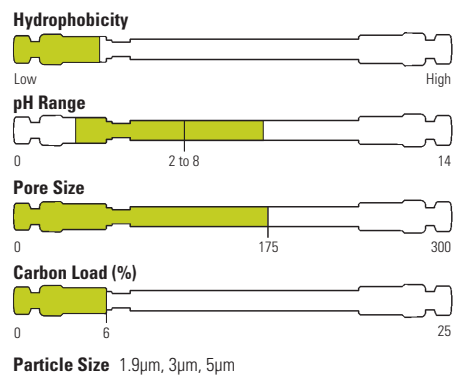
The Hypersil GOLD web page contains the latest news, applications and downloads for the Hypersil GOLD HPLC column range. Visit:
www.thermoscientific.com/hypersilgold



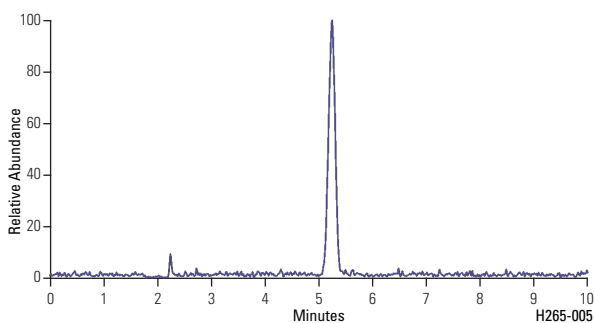
Hypersil GOLD HILIC

Hypersil GOLD HILIC retains and separates polar analytes that are problematic using reversed phase columns

- Alternative selectivity to C18
- Improved sensitivity for MS detection
- Alternative to ion-pair or derivatisation
- Outstanding peak shape and selectivity



Urea



Column: Hypersil GOLD HILIC, 5µm, 150 x 4.6mm

Part Number: 26505-154630

Mobile Phase: H₂O/MeCN (10:90)
+ 0.1% formic acid

Flow Rate: 0.6mL/min

Temperature: 30°C

Detection: +ESI

Injection volume: 1µL (made up in mobile phase)

Sample: 1. Urea

Hypersil GOLD Ordering Guide

Particle Size (µm)	Format	Length (mm)	ID (mm)	GOLD	C8	aQ	PFP
1.9	UHPLC Column	20	2.1	25002-022130	25202-022130	25302-022130	25402-022130
			1.0	25002-031030	—	—	—
			2.1	25002-032130	25202-032130	25302-032130	25402-032130
		50	1.0	25002-051030	25202-051030	25302-051030	25402-051030
			2.1	25002-052130	25202-052130	25302-052130	25402-052130
			3.0	25002-053030	25202-053030	25302-053030	25402-053030
			4.6	25002-054630	25202-054630	25302-054630	25402-054630
		100	1.0	25002-101030	25202-101030	25302-101030	25402-101030
			2.1	25002-102130	25202-102130	25302-102130	25402-102130
			3.0	25002-103030	25202-103030	25302-103030	25402-103030
		150	2.1	25002-152130	25202-152130	25302-152130	25402-152130
		200	2.1	25002-202130	25202-202130	25302-202130	25402-202130
3	Drop-in Guard (4/pk)	10	1.0	25003-011001	25203-011001	25303-011001	25403-011001
			2.1	25003-012101	25203-012101	25303-012101	25403-012101
			3.0	25003-013001	25203-013001	25303-013001	25403-013001
			4.0/4.6	25003-014001	25203-014001	25303-014001	25403-014001
	HPLC Column	30	2.1	25003-032130	25203-032130	25303-032130	25403-032130
			3.0	25003-033030	25203-033030	25303-033030	25403-033030
			4.6	25003-034630	25203-034630	25303-034630	25403-034630
		50	2.1	25003-052130	25203-052130	25303-052130	25403-052130
			3.0	25003-053030	25203-053030	25303-053030	25403-053030
			4.0	25003-054030	25203-054030	25303-054030	25403-054030
			4.6	25003-054630	25203-054630	25303-054630	25403-054630
		100	1.0	25003-101030	25203-101030	25303-101030	25403-101030
			2.1	25003-102130	25203-102130	25303-102130	25403-102130
			3.0	25003-103030	25203-103030	25303-103030	25403-103030
			4.0	25003-104030	25203-104030	25303-104030	25403-104030
			4.6	25003-104630	25203-104630	25303-104630	25403-104630
		150	1.0	25003-151030	25203-151030	25303-151030	25403-151030
			2.1	25003-152130	25203-152130	25303-152130	25403-152130
			3.0	25003-153030	25203-153030	25303-153030	25403-153030
			4.0	25003-154030	25203-154030	25303-154030	25403-154030
			4.6	25003-154630	25203-154630	25303-154630	25403-154630
5	Drop-in Guard (4/pk)	10	2.1	25005-012101	25205-012101	25305-012101	25405-012101
			3.0	25005-013001	25205-013001	25305-013001	25405-013001
			4.0/4.6	25005-014001	25205-014001	25305-014001	25405-014001
	HPLC Column	30	2.1	25005-032130	—	—	—
			3.0	25005-033030	—	—	—
			4.6	25005-034630	—	—	—
		50	2.1	25005-052130	25205-052130	25305-052130	25405-052130
			3.0	25005-053030	25205-053030	25305-053030	25405-053030
			4.6	25005-054630	25205-054630	25305-054630	25405-054630
		100	2.1	25005-102130	25205-102130	25305-102130	25405-102130
			3.0	25005-103030	25205-103030	25305-103030	25405-103030
			4.6	25005-104630	25205-104630	25305-104630	25405-104630
		150	2.1	25005-152130	25205-152130	25305-152130	25405-152130
			3.0	25005-153030	25205-153030	25305-153030	25405-153030
			4.0	25005-154030	25205-154030	25305-154030	25405-154030
			4.6	25005-154630	25205-154630	25305-154630	25405-154630
		250	2.1	25005-252130	25205-252130	25305-252130	25405-252130
			3.0	25005-253030	25205-253030	25305-253030	25405-253030
			4.0	25005-254030	25205-254030	25305-254030	25405-254030
			4.6	25005-254630	25205-254630	25305-254630	25405-254630

C4	Phenyl	CN	Amino	AX	SAX	Silica	HILIC
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
25502-052130	25902-052130	25802-052130	25702-052130	26102-052130	26302-052130	25102-052130	26502-052130
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
25502-102130	25902-102130	25802-102130	25702-102130	26102-102130	26302-102130	25102-102130	26502-102130
-	-	-	-	-	-	-	-
25502-152130	25902-152130	25802-152130	25702-152130	26102-152130	26302-152130	25102-152130	26502-152130
25502-202130	25902-202130	25802-202130	25702-202130	26102-202130	26302-202130	25102-202130	26502-202130
25503-011001	25903-011001	25803-011001	25703-011001	26103-011001	26303-011001	25103-011001	26503-011001
25503-012101	25903-012101	25803-012101	25703-012101	26103-012101	26303-012101	25103-012101	26503-012101
25503-013001	25903-013001	25803-013001	25703-013001	26103-013001	26303-013001	25103-013001	26503-013001
25503-014001	25903-014001	25803-014001	25703-014001	26103-014001	26303-014001	25103-014001	26503-014001
25503-032130	25903-032130	25803-032130	25703-032130	26103-032130	26303-032130	25103-032130	26503-032130
-	-	-	-	-	-	-	-
25503-034630	25903-034630	25803-034630	25703-034630	26103-034630	26303-034630	25103-034630	26503-034630
25503-052130	25903-052130	25803-052130	25703-052130	26103-052130	26303-052130	25103-052130	26503-052130
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
25503-102130	25903-102130	25803-102130	25703-102130	26103-102130	26303-102130	25103-102130	26503-102130
25503-103030	25903-103030	25803-103030	25703-103030	26103-103030	26303-103030	25103-103030	26503-103030
-	-	-	-	-	-	-	-
25503-104630	25903-104630	25803-104630	25703-104630	26103-104630	26303-104630	25103-104630	26503-104630
25503-151030	25903-151030	25803-151030	25703-151030	26103-151030	26303-151030	25103-151030	26503-151030
25503-152130	25903-152130	25803-152130	25703-152130	26103-152130	26303-152130	25103-152130	26503-152130
25503-153030	25903-153030	25803-153030	25703-153030	26103-153030	26303-153030	25103-153030	26503-153030
-	-	-	-	-	-	-	-
25503-154630	25903-154630	25803-154630	25703-154630	26103-154630	26303-154630	25103-154630	26503-154630
25505-012101	25905-012101	25805-012101	25705-012101	26105-012101	26305-012101	25105-012101	26505-012101
25505-013001	25905-013001	25805-013001	25705-013001	26105-013001	26305-013001	25105-013001	26505-013001
25505-014001	25905-014001	25805-014001	25705-014001	26105-014001	26305-014001	25105-014001	26505-014001
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
25505-052130	25905-052130	25805-052130	25705-052130	26105-052130	26305-052130	25105-052130	26505-052130
-	-	-	-	-	-	-	-
25505-054630	25905-054630	25805-054630	25705-054630	26105-054630	26305-054630	25105-054630	26505-054630
25505-102130	25905-102130	25805-102130	25705-102130	26105-102130	26305-102130	25105-102130	26505-102130
25505-103030	25905-103030	25805-103030	25705-103030	26105-103030	26305-103030	25105-103030	26505-103030
25505-104630	25905-104630	25805-104630	25705-104630	26105-104630	26305-104630	25105-104630	26505-104630
25505-152130	25905-152130	25805-152130	25705-152130	26105-152130	26305-152130	25105-152130	26505-152130
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
25505-154630	25905-154630	25805-154630	25705-154630	26105-154630	26305-154630	25105-154630	26505-154630
25505-252130	25905-252130	25805-252130	25705-252130	26105-252130	26305-252130	25105-252130	26505-252130
25505-253030	25905-253030	25805-253030	25705-253030	26105-253030	26305-253030	25105-253030	26505-253030
25505-254030	25905-254030	25805-254030	25705-254030	26105-254030	26305-254030	25105-254030	26505-254030
25505-254630	25905-254630	25805-254630	25705-254630	26105-254630	26305-254630	25105-254630	26505-254630

Hypersil GOLD Ordering Guide *continued*

Format	Length (mm)	ID (mm)	Cat. No.
UNIGUARD Guard Cartridge Holder	10	1.0	851-00
		2.1	852-00
		3.0	852-00
		4.0/4.6	850-00

Particle Size (µm)	Format	Length (mm)	ID (mm)	GOLD
1.9	Javelin HTS Column (3/pk)	10	2.1	25002-012135
5	Javelin HTS Column (3/pk)	20	4.0	25005-024035

Particle Size (µm)	Format	Length (mm)	ID (mm)	GOLD	aQ	PFP
5	Preparative Guard Cartridge (3/pk)	10	10	25005-019023	25305-019023	25405-019023
			20	25005-019223	25305-019223	25405-019223
	Preparative HPLC Column	50	10	25005-059070	25305-059070	25405-059070
			21	25005-059270	25305-059270	25405-059270
			30	25005-059370	25305-059370	25405-059370
			50	25005-059570	25305-059570	25405-059570
		100	10	25005-109070	25305-109070	25405-109070
			21	25005-109270	25305-109270	25405-109270
			30	25005-109370	25305-109370	25405-109370
			50	25005-109570	25305-109570	25405-109570
		150	10	25005-159070	25305-159070	25405-159070
			21	25005-159270	25305-159270	25405-159270
			30	25005-159370	25305-159370	25405-159370
			50	25005-159570	25305-159570	25405-159570
		250	10	25005-259070	25305-259070	25405-259070
			21	25005-259270	25305-259270	25405-259270
			30	25005-259370	25305-259370	25405-259370
			50	25005-259570	25305-259570	25405-259570
12	Preparative Guard Cartridge (3/pk)	10	10	25012-019023	—	—
			20	25012-019223	—	—
	Preparative HPLC Column	50	10	25012-059070	—	—
			21	25012-059270	—	—
			30	25012-059370	—	—
			50	25012-059570	—	—
		100	10	25012-109070	—	—
			21	25012-109270	—	—
			30	25012-109370	—	—
			50	25012-109570	—	—
		150	10	25012-159070	—	—
			21	25012-159270	—	—
			30	25012-159370	—	—
			50	25012-159570	—	—
		250	10	25012-259070	—	—
			21	25012-259270	—	—
			30	25012-259370	—	—
			50	25012-259570	—	—

Format	Length (mm)	ID (mm)	Cat. No.
Preparative Guard Cartridge Holder	10	10	C-1000
		20	854-00