

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



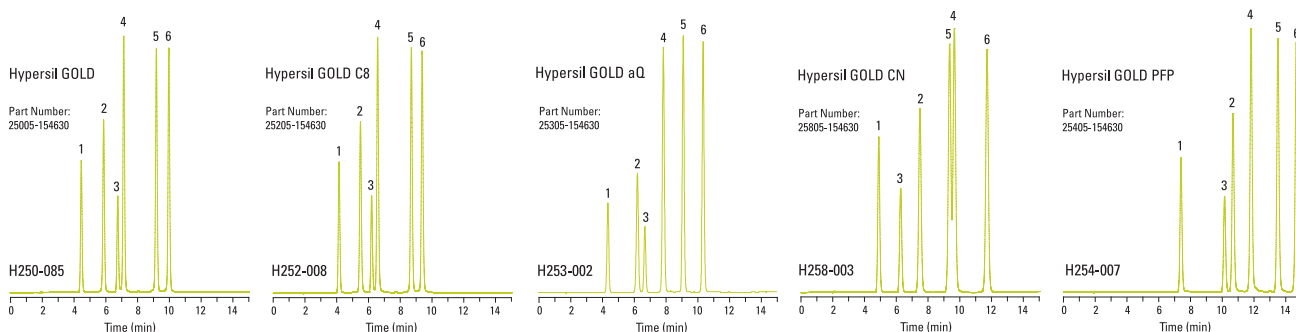
Thermo Scientific™ Hypersil GOLD™ columns are exceptionally reproducible for reliable chromatography, column after column. This allows the user to be confident that assays developed with Hypersil GOLD columns will be robust and stable for the life of the assay, making them an ideal choice for new method 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:

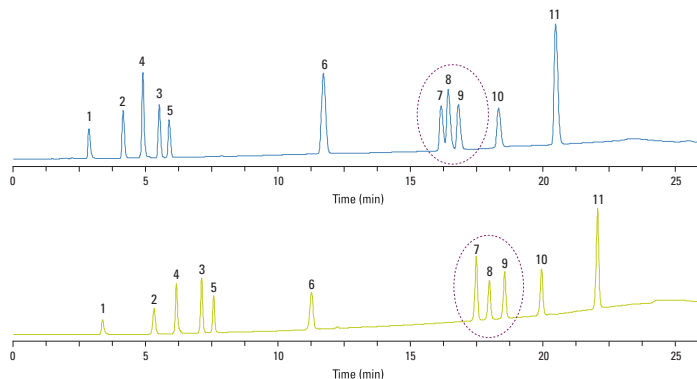
- **Hypersil GOLD** offers outstanding peak shape using generic gradients with C18 selectivity
- **Hypersil GOLD C8** offers similar selectivity but with less retention
- **Hypersil GOLD aQ** can be used for challenging reverse phase separations employing highly aqueous mobile phases
- **Hypersil GOLD 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.



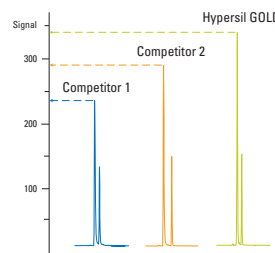
Hypersil GOLD, 5µm, 150 x 4.6mm

Mobile Phase:	A: H ₂ O + 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. Gallicocatechin Gallate 5. Epicatechin Gallate 6. Catechin Gallate



Competitor 18 column

Hypersil GOLD column



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

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

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.

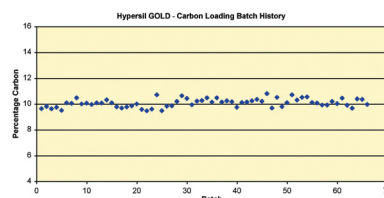
Enhanced peak height can be particularly critical when low concentrations of an analyte are present, for example in an impurity assay. The increase in sensitivity gained with the Hypersil GOLD columns over competitor C18 columns is illustrated above.

Enhanced Resolution

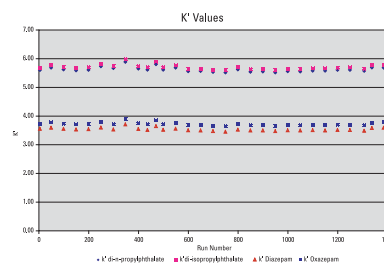
Robust assay development requires a clear definition of resolution expectations. Narrow symmetrical chromatographic peaks ensure that optimum resolution is achieved. Obtaining narrow peak widths is especially challenging for basic pharmaceutical compounds. The figure above shows how Hypersil GOLD columns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

pH Stability

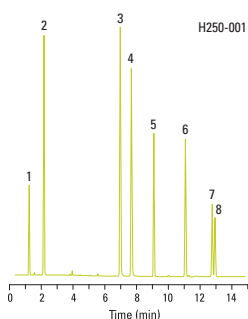
Hypersil GOLD columns are well suited to extended pH applications. Hypersil GOLD columns have been shown to produce robust assays at high pH. At low pH, excellent column stability and reproducibility are illustrated.



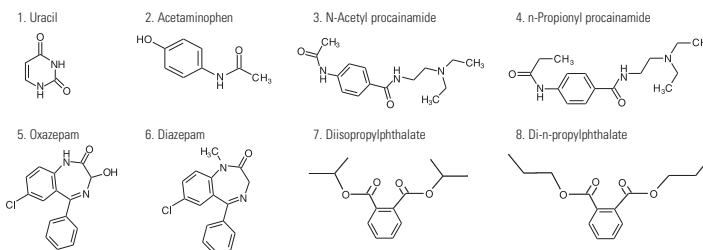
Excellent reproducibility is illustrated with the percent carbon on the Hypersil GOLD media



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



H250-001
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