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# Meet your separation needs Analytical UHPLC and HPLC columns 

Analytical chromatography separations are very diverse. The portfolio of
Thermo Scientific" UHPLC and HPLC high resolution, high throughput columns is designed to meet your unique challenges. With a wide range of innovative column chemistries and size formats, we provide you the most complementary column for your separation. This guide will introduce you to our broad range of reversed-phase chemistries and column families.

## Which Thermo Scientific columns meets your separation needs?

$\left.\begin{array}{|l|l|l|}\text { Accucore } & \begin{array}{l}\text { Achieves high resolution } \\ \text { separations on a solid } \\ \text { core platform }\end{array} & \begin{array}{l}\text { Delivers increased sensitivity } \\ \text { on a standard HPLC system }\end{array}\end{array} \begin{array}{l}\text { Provides fast and easy } \\ \text { analyses with a wide selection } \\ \text { of chemsitries }\end{array}\right\}$

## Accucore HPLC and UHPLC columns

Thermo Scientific" ${ }^{\text {" }}$ Accucore ${ }^{\text {m" }}$ columns are based on solid core (superficially porous) particles yielding highly efficient, rugged separations for high performance liquid chromatography (HPLC) and liquid chromatography-mass spectrometry (LC-MS) applications. They offer lower backpressures than fully porous sub-2 $\mu \mathrm{m}$ particles. These are the columns of choice when sample volumes are limited, or when higher throughput is desired.

We offer the widest portfolio of solid core chemistries (1.5, 2.6, $4 \mu \mathrm{~m}$ ), which benefits you with options to optimize your resolution and separations.

## Hypersil GOLD HPLC and UHPLC columns

These general-purpose columns for HPLC and LC-MS applications provide exceptional peak shape affording confidence in your analytical data. With minimal peak tailing, these columns are packed to achieve exceptional efficiency, peak shape and resolution.

Thermo Scientific ${ }^{\text {m" }}$ Hypersil GOLD"' columns offer a broad range of phases and particle sizes (1.9, 3, $5 \mu \mathrm{~m})$. They are your go-to column for starting method development.

## Acclaim HPLC and UHPLC columns

For complex samples requiring higher resolution, Thermo Scientific'" Acclaim ${ }^{\text {m" }}$ columns offer unique chemistries for high performance. Featuring high surface area for greater resolution, these columns provide confidence in quantitative data for LC-MS and HPLC analysis.

Column selections range from C18 to mixed-mode (2.2, $3,5 \mu \mathrm{~m}$ ) which provide the diversity you need to solve your complicated sample separations.

UHPLC and HPLC columns portfolio


Solid core. High throughput.
High resolution.



Excellent resolution.
Efficiency. Sensitivity.



Superior resolution for challenging samples.


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## Column chemistry selection—which column family is right for your application?

Hydrophobic capacity is an important consideration when choosing a C18 column. When adapting a method from a different column or developing a new method, surface area and carbon load must be considered, as they provide the primary source for analyte retention on the column.

The Hypersil GOLD column is fully porous with low hydrophobic capacity (10\% carbon load) resulting in fast run times. It is a great starting point for high efficiency separations of low to moderate complexity samples.

The Acclaim 120 C18 column is fully porous with a higher hydrophobic capacity (18\% carbon load). This column delivers high resolution through hydrophobic retention. The Acclaim family is designed around specialty chemistries to resolve complicated samples.

The solid core Accucore column family includes both low and high hydrophobic capacity options (RP-MS and C18). The Accucore column line takes the best surface chemistries of the Hypersil GOLD and Acclaim column families and puts them on a solid core support for users looking for high resolution separations without elevated backpressures of a sub-2 $\mu \mathrm{m}$ particle.

To help you determine the carbon load or surface area of our columns, please visit thermofisher.com/Iccolumns. This site offers many technical details and resources on our C18 phases and guidance on how to select a mixedmode or specialty phase.

## Quick guide to choosing a phase

|  |  | C18 | Polar Phases | Aromatic | HILIC |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Low to moderate complexity sample | Fully porous | Hypersil GOLD columns | Hypersil GOLD aQ columns | Hypersil GOLD PFP columns | Hypersil GOLD HILIC columns |
|  | Solid core | Accucore RP-MS columns | Accucore aQ columns | Accucore Phenyl-Hexyl columns | Accucore HILIC columns |
| Moderate to high complexity sample | Fully porous | Acclaim 120 C18 columns | Acclaim Polar Advantage II columns | Acclaim Phenyl-1 columns | Acclaim HILIC-10 columns |
|  | Solid core | Accucore C18 columns | Accucore Polar Premium columns | Accucore Biphenyl columns | Accucore <br> Amide-HILIC columns |

Find out more at eu.fishersci.com/go/thermochrom

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