



Preparative HPLC Columns

## Scale up to more options

### Benefits

- Robust preparative HPLC columns available in any dimension for maximum application flexibility
- Easily scale up from your current analytical method with over 40 chemistries to choose from including high surface area particles available for higher peak capacity separations
- Improved column lifetime with our XtendedLife hardware featuring a dynamic axial compression (DAC) system
- More options to meet your requirements including supercritical fluid chromatograph (SFC) compatible hardware and a full range of guard columns and holders

Experience expanded column capabilities with a diverse Thermo Scientific™ preparative HPLC column portfolio which offers uncompromising performance for all your scale up needs. Using the highest quality hardware and state-of-the-art packing methodology, the transition from analytical to preparative scale could not be simpler.

For prep LC columns, one size does not fit all. Our full range of column hardware offers robust performance and our wide variety of chemistries makes it easy to scale-up from your current analytical method. Expect reproducible results with Thermo Scientific sample prep, columns and vials.

## Premium preparative HPLC columns

For customers who require scalability for their unique and challenging separations

Ensuring continuity for scale up across our premium ranges of Thermo Scientific™ Hypersil GOLD™, Thermo Scientific™ Hypercarb™, Thermo Scientific™ Synchronis™ and Thermo Scientific™ Accucore™ chemistries is key for many customers. The ability to transfer methods from analytical to preparative scale, while maintaining the separation profile, gives users confidence to accurately identify and fractionate components of interest from contaminants or by-products.

Scaling the injection volume and flow rates, the same excellent separation is demonstrated on both Hypersil GOLD analytical and preparative columns (Figure 1).

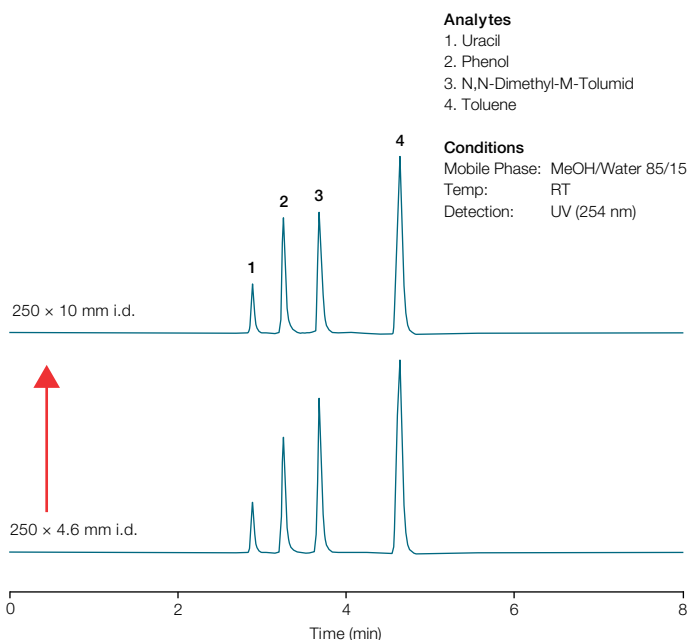


Figure 1: Hypersil GOLD 5mm scaled from Analytical to Preparative LC

## Hypersil PREP preparative HPLC columns

For customers who require cost effective separations without compromising quality

For over 40 years, Hypersil technology has been associated with excellent separation characteristics over a wide range of chemistries. We have introduced a new range of Thermo Scientific™ Hypersil™ PREP stationary phases uniquely designed for prep LC compatibility and combined with the latest hardware advances to produce a range of high quality cost-effective preparative HPLC columns. These phases are also available in analytical formats for customers to obtain their ideal separation quickly and efficiently before a linear scale up to larger formats.

Our Hypersil PREP C18 phase was packed into 4.6 mm (c), 10 mm (b), and 20 mm (a) formats before separating a mixture of components (Figure 2). As the separation is scaled up between columns packed with similar material, the separation of compounds is maintained showing the linear scale up from analytical to any size of prep column can be achieved.

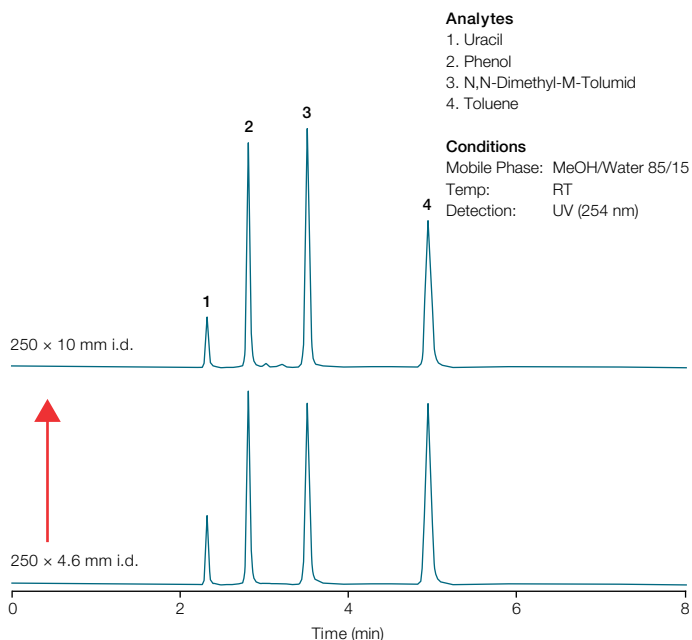
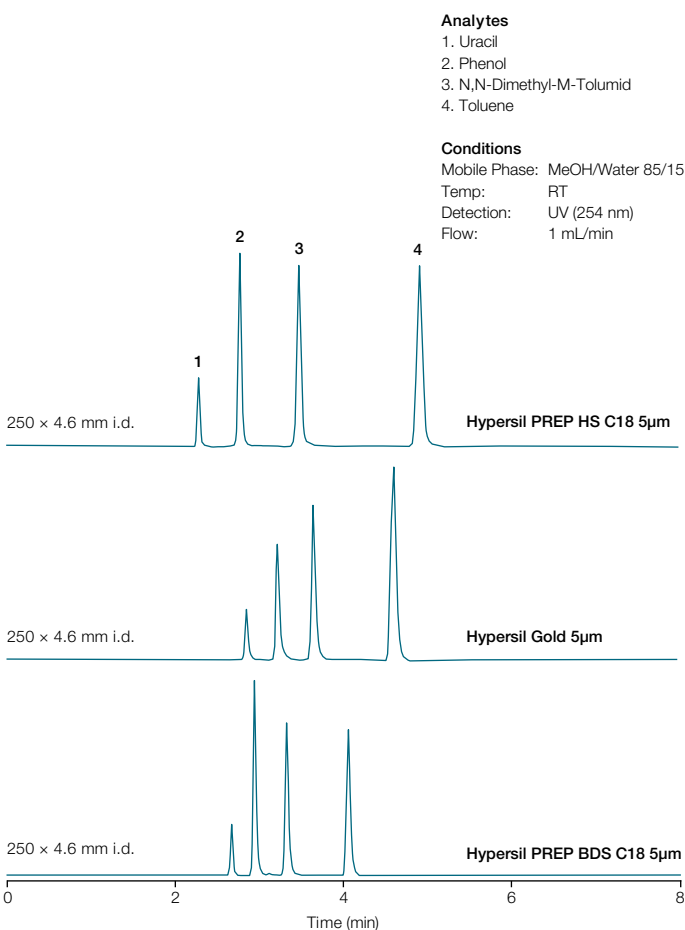


Figure 2: Hypersil PREP BDS C18 5mm scaled from Analytical to Preparative LC

## Hypersil PREP HS preparative HPLC columns

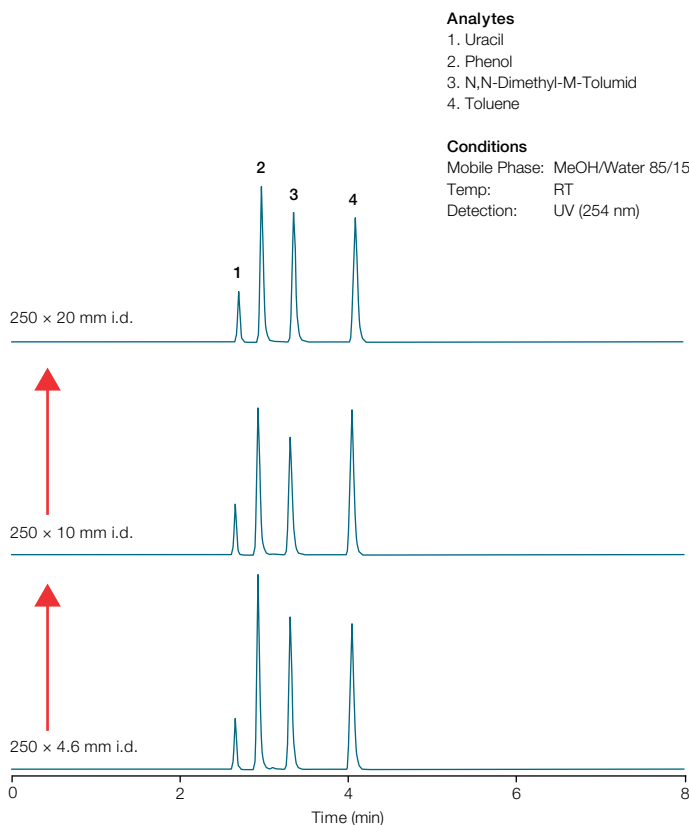
### For customers requiring high surface area particles for the enhanced separation of impurities

The separation of impurities, or synthesized precursor materials, can present a real challenge to the chemist even at analytical dimensions. Transferring these analytical methods to preparative scale requires the highest separation capability possible. The Thermo Scientific™ Hypersil™ PREP HS range of chemistries provides high surface area (350–400 m/g<sup>2</sup>) with a 100Å pore size to achieve the highest peak capacity to resolve structurally similar compounds of similar molecular weight. A good way to demonstrate this is to compare Hypersil GOLD, Hypersil PREP BDS C18 and Hypersil PREP HS C18 phases in the same column dimension (Figure 3).



**Figure 3: Comparison of retention profiles of Hypersil PREP HS C18, Hypersil GOLD and Hypersil PREP BDS C18**

The additional peak capacity of the Hypersil PREP HS is fully scalable from analytical to preparative (Figure 4) and allows the user to have confidence in the same separation between all formats and dimension of column.



**Figure 4: Hypersil PREP HS C18 5mm scaled from Analytical to Preparative LC**

## Guards columns and guard holders

Column lifetime can be extended by the addition of a guard column packed with a similar, or same particle, chemistry and size as the main separation column. For the column dimensions above, 30 mm i.d. guard columns are available with either 1/8" or 1/16" connectors to be fully compatible with tubing and fittings on your preparative HPLC system. Guard columns are supplied in Premium PREP, Hypersil PREP and Hypersil PREP HS ranges, and require the use of the appropriately sized guard holder.

## Preparative HPLC column hardware options

Column hardware selection is based on column inner diameter (i.d.) and column performance needs.

### Standard threaded and standard flange hardware

Designed for standard applications, this hardware is expertly packed and robustly designed to provide versatile products for routine use.

- Standard threaded hardware for column i.d. < 40 mm
- Standard flange hardware for column i.d. ≥ 40 mm
- Standard hardware can be modified on request to be compatible with SFC



## Customer specific orders

The range of our preparative HPLC columns has been developed with the most common phases and chemistries in mind. If you are currently using a Thermo Scientific stationary phase and would like to obtain a preparative scale version, or if you require a specific column dimension, please contact your local sales representative. We are happy to discuss your requirements and advise on customer-specific orders and delivery times.

### XtendedLife hardware

Improves column lifetime by incorporating an internal dynamic axial compression (DAC) system, ensuring the media bed is continuously packed tightly.

- Compatible with SFC and is available in dimensions up to 50 mm i.d.



Find out more at [thermofisher.com/PrepLC](https://thermofisher.com/PrepLC)