High Performance 2.5*µm* particles

- **Over 20% more efficiency than 3µm**
- **Lower backpressure than UHPLC columns**
- **Operate in 400bar or 1000bar systems**
- **Fully Scalable to analytical and prep size**

Fortis 2.5µm particles are designed to be the next step in improving both resolution and speed. Allowing the analyst to move towards ultra high pressure chromatography (UHPLC) whilst still operating on traditional 400bar LC systems. Can be combined with the companies innovative column designs 2.5µm particles offer speed and efficiency without compromising loadability and scaleability. The optimised C18 bonding maintains the phases ability to be stable from pH 1-12.

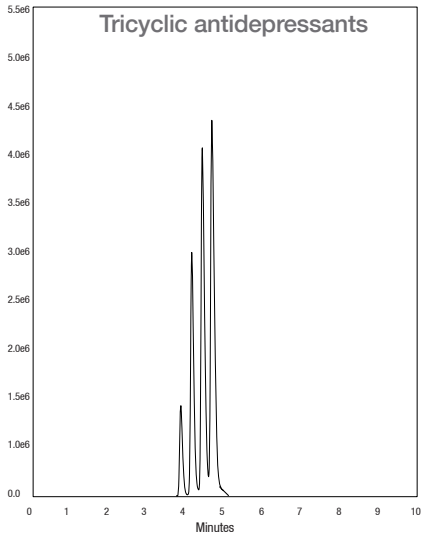
Optimised Resolution

Resolution of closely related species can be achieved by the use of 2.5µm particles and the optimised peak shapes afforded by Fortis C18 stationary phase.
Basic, Acidic and Neutral analyte performance is first class across the pH spectrum.

- **Higher Efficiencies**
- **Greater Reproducibility**
- **Resolution enhanced**

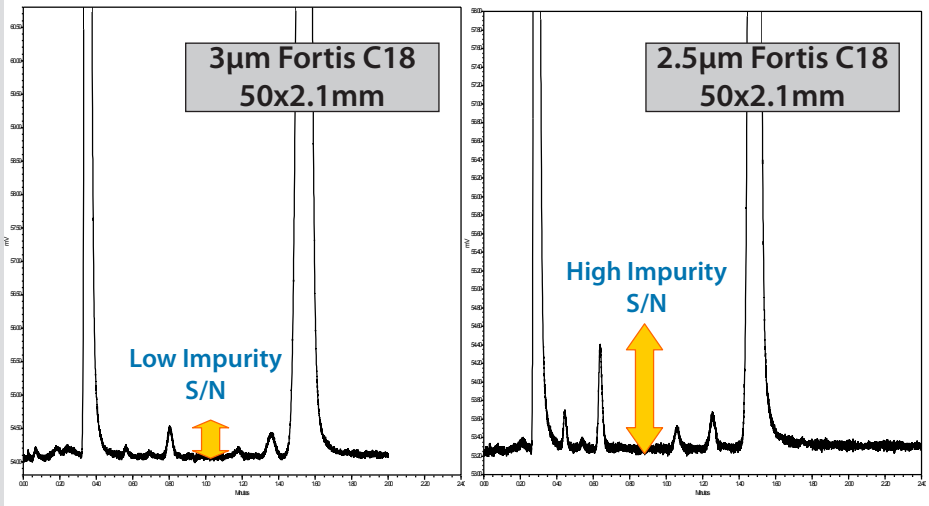
Column: Fortis C18 100x4.6mm 2.5µ
p/n: F18-050502
Mobile Phase: A - H_2O + 0.1% Formic acid
B - ACN + 0.1% Formic acid
Gradient: 25 - 40% in 10min
Flow: 1ml/min
Temp: 20°C
Wavelength: 254nm

1. Protriptyline
2. Nortriptyline
3. Amitriptyline
4. Trimipramine



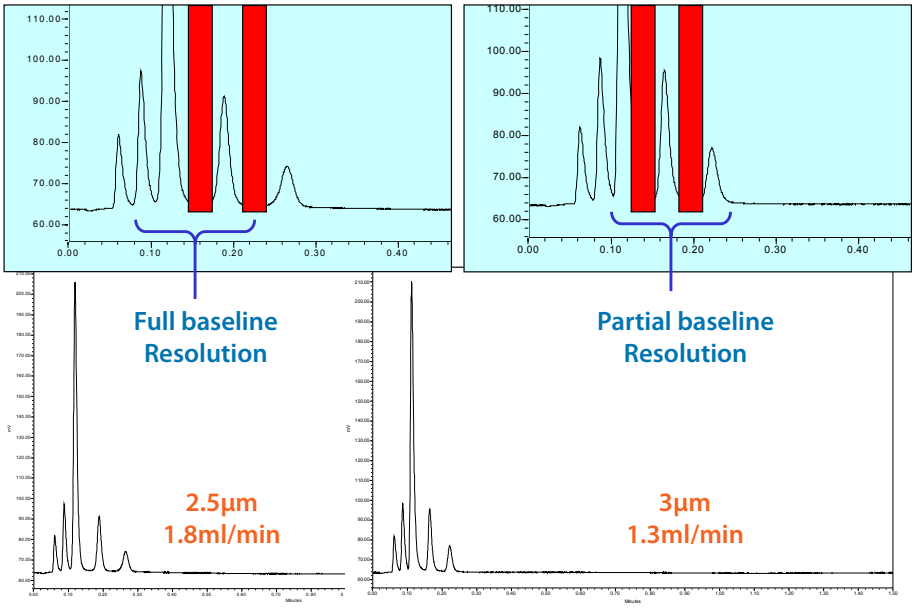
Sensitivity Gain - Impurities

With sensitivity of degradents and impurities being an issue in pharmaceutical analysis, peak shapes and peak height need to be optimal in order to obtain low level LOD (limits of detection).
Fortis 2.5um particles allow higher sensitivity to be obtained than 3um particles, therefore lower LOD's.

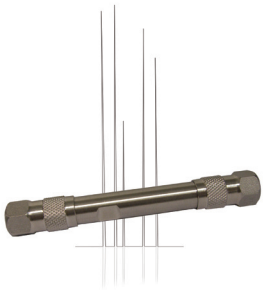


Increased Peak Capacity

As we run faster and faster we get to the point where peak capacity starts to fall, by being able to increase efficiency by moving to a smaller particle we can increase the efficiency and therefore maintain peak capacity.
An improvement in baseline resolution can be seen by the use of 2.5um particles at higher linear velocities.



2.5µm Fortis C18 particles can be provided packed in hardware that is fully compatible with UHPLC systems so the low dead volume capability of these systems can be fully utilised:



To learn more about the stability and peak shapes of Fortis C18 turn to page 14.

2.5µm Fortis C18		Column Length			
		30	50	100	150
Column Diameter	2.1	F18-020202	F18-020302	F18-020502	F18-020702
	3.0	F18-030202	F18-030302	F18-030502	-
	4.6	F18-050202	F18-050302	F18-050502	-

2.5µm Fortis C18 in UHPLC Hardware		Column Length			
		30	50	100	150
Column Diameter	2.1	F18-020202UHP	F18-020302UHP	F18-020502UHP	F18-020702UHP
	3.0	F18-030202UHP	F18-030302UHP	F18-030502UHP	-
	4.6	F18-050202UHP	F18-050302UHP	-	-

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