C18

Mechanisms of Separation	Strength of Interaction
Hydrophobic binding interactions	Strong
Shape selectivity	Weak

Target Analytes
Analytes differing in hydrophobicity
Polar, moderately polar and nonpolar analytes
Uncharged acids and bases
Ionized acids or bases using ion-pairing

Recommended Applications
Analytes differing in hydrophobicity
Homologous compounds differing by –CH2
Ideal starting point for method development

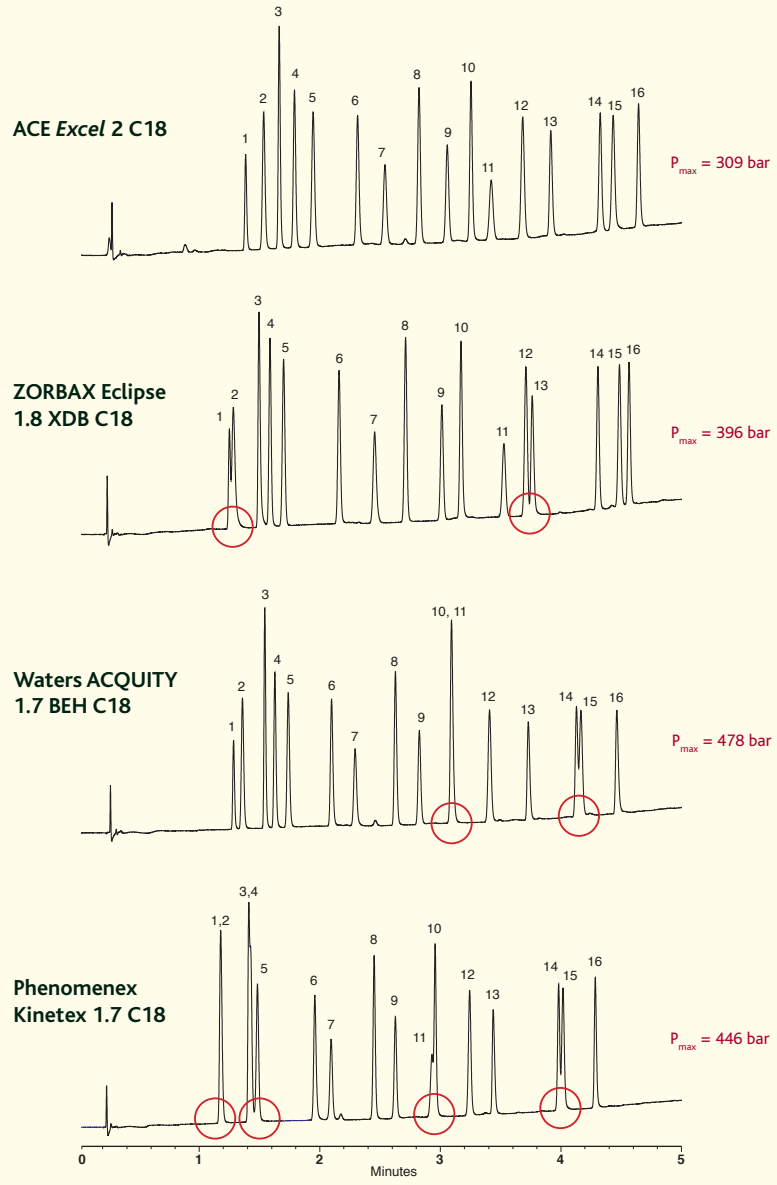
Further Information;
An HPLC product brochure discussing ACE C18 and all ACE phases is available.
Contact your distributor to request your copy or visit **www.ace-hplc.com** for further details.

Figure 6: Comparison of selectivity and characteristics of ACE® *Excel*™ 2µm C18 to other manufacturers' columns

Application #1503 – Rapid UHPLC Screening of 16 Pharmaceuticals and Related Compounds

Mobile Phase: A = 20 mM KH_2PO_4, pH 2.7 and
B = 20 mM KH_2PO_4, pH 2.7 in MeOH/H_2O (65:35 v/v)
Gradient: 3 to 100% B in 5 minutes
Flow Rate: 0.6 ml/min
Temperature: 60°C
Detection: UV, 214 nm
Column Dimensions: 50 x 2.1mm

1. N-acetylprocainamide
2. 3-hydroxybenzoic acid
3. pindolol
4. methylphenylsulphoxide
5. benzylalcohol
6. quinoxaline
7. 1,4-dinitrobenzene
8. phenacetin
9. 1,2-dimethoxybenzene
10. furosemide
11. anisole
12. methylbenzoate
13. remacemide
14. nimesulide
15. ethylbenzoate
16. diflunisal



Comparative data may not be representative of all applications.
Please see p.10 for acknowledgement of trademarks

In this example the ACE *Excel* C18 UHPLC column provides retention and selectivity similar to the other C18 UHPLC columns (although there may be slight selectivity differences between different C18 phases). Under these conditions, these slight differences allow the ACE *Excel* C18 to fully separate all 16 components of interest.

As with all ACE HPLC columns, ACE *Excel* UHPLC columns also deliver excellent peak shape for your analytes. Additionally, owing to the optimal 2µm particle size and a rigorous classification protocol, back pressure for all ACE *Excel* UHPLC columns is significantly lower than for these leading UHPLC columns packed with <2µm particles.