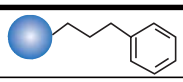
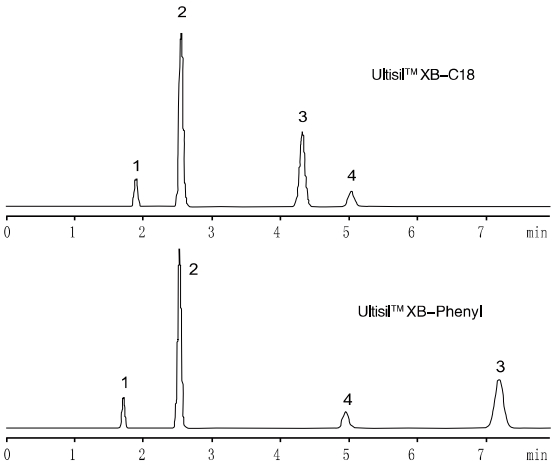
Ultisil™ XB-Phenyl--Different Selectivity to Alkyl Phase

Ultisil™ XB-Phenyl phase is less retentive than conventional C18 or C8 phases, but more retentive than standard cyano phase. Due to their ability to participate in π-π interactions, XB-Phenyl columns may actually be more retentive than C18 or C8 columns towards certain polar aromatic compounds, depending on running conditions. The selectivity for highly polar aromatics, which are poorly retained on alkyl-bonded phases, together with reduced retentivity towards non-polar compounds, make XB-Phenyl an excellent choice for the analysis of complex mixtures of polar and non-polar analytes. Additionally, this bonding phase boasts high surface coverage and exhaustive double end-capping, leading to better performance.

Ultisil™ XB-Phenyl

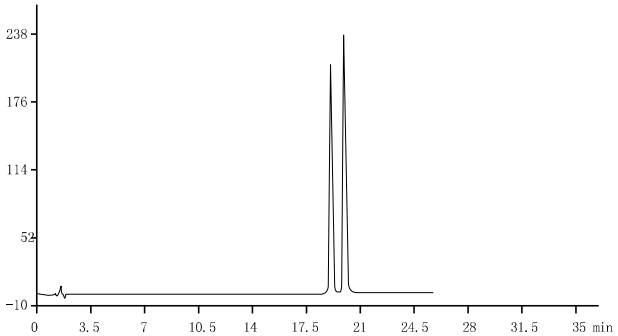
Structural Formula	
pH Range	1.5-10.0
Particle Size	3 μm, 5 μm, 10 μm
Surface Area(m^2/g)	320(120 Å), 90(300 Å)
Carbon Loading(%)	12(120 Å), 4(300 Å)
USP List	L11
Endcapped	Yes

Unique Selectivity for Aromatic Compounds of Ultisil™ XB-Phenyl Phase



Column:	4.6 ×150 mm, 5 μm
Mobile Phase:	Methanol / water=70/30
Flow Rate:	1.0 mL/min
Detector:	254 nm
Temperature:	24°C
Samples:	1. Uracil 2. Phenol 3. Paranitrotoluene 4. Toluene

Montelukast Sodium Isomers

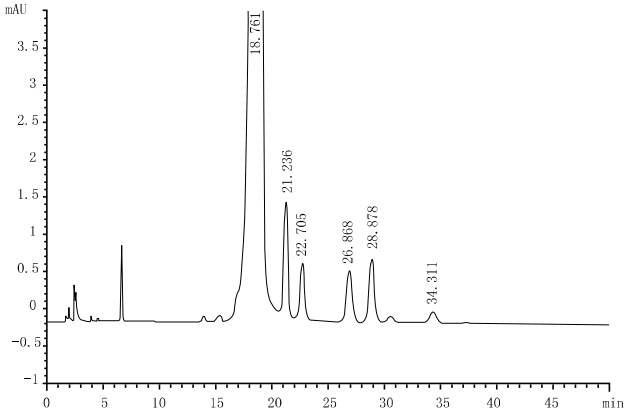


Column:	Ultisil™ XB-Phenyl, 4.6 ×150 mm, 3 μm
Mobile Phase:	A: 0.2% TFA B: methanol / acetonitrile=60/40

Time(min)	A(%)	B(%)
0	48	52
5	45	55
12	45	55
22	25	75
23	25	75
25	48	52
30	48	52

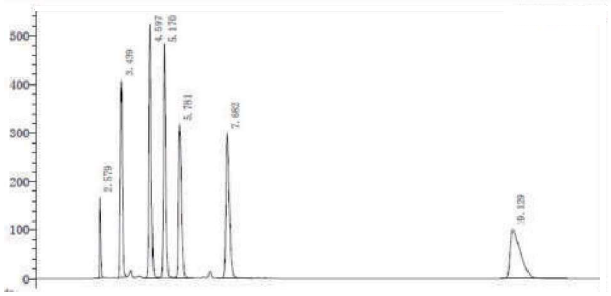
Flow Rate:	1.0 mL/min
Detector:	255 nm
Temperature:	30°C
Injection Volume:	10 μL

Moxifloxacin Hydrochloride



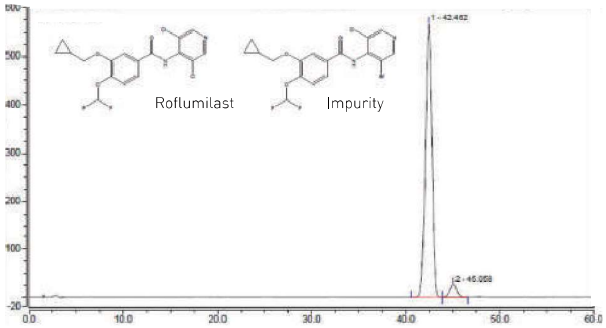
Column:	Ultisil™ XB-Phenyl, 4.6 ×250 mm, 5 µm
Mobile Phase:	(0.5g TBAHS, 1g KH_2PO_4, 3.4 g(2 mL) H_3PO_4, 1000 mL water) / methanol=72/28
Flow Rate:	1.3 mL/min
Detector:	293 nm
Temperature:	45°C
Samples:	10 µL

Fenticonazole Nitrate



Column:	Ultisil™ XB-Phenyl, 4.6 ×250 mm, 5 µm
Mobile Phase:	KH_2PO_4 buffer solution*/acetonitrile=30/70 *Dissolve 3.4 g of KH_2PO_4 in 900 mL water, adjust pH 3.3 with H_3PO_4, then add water to 1000 mL.
Flow Rate:	1.0 mL/min
Detector:	229nm
Temperature:	30°C
Injection Volume:	20 µL

Roflumilast



Column:	Ultisil™ XB-Phenyl, 4.6 ×250 mm, 5 µm
Mobile Phase:	Acetonitrile/water=40/60
Flow Rate:	1.0 mL/min
Detector:	215 nm
Temperature:	30 °C
Samples:	10 µL

Ordering Information

Ultisil™ XB-Phenyl

Particle size	Column ID (mm)	Column Length (mm)										Guard Cartridge	Guard Column Holder
		30	33	50	75	100	125	150	200	250	300	10mm length	
3 µm 120 Å	2.1	00203-21009	09203-21009	00203-21010	00203-21011	00203-21012	00203-21013	00203-21014	00203-21015	00203-21016	-	00808-23006	00808-01107
	3.0	00203-21018	-	00203-21019	00203-21020	00203-21021	00203-21022	00203-21023	00203-21024	00203-21025	-	00808-23006	00808-01107
	4.0	00203-21027	-	00203-21028	00203-21029	00203-21030	00203-21031	00203-21032	00203-21033	00203-21034	-	00808-03006	00808-01101
	4.6	00203-21036	11203-21036	00203-21037	00203-21038	00203-21039	00203-21040	00203-21041	00203-21042	00203-21043	-	00808-03006	00808-01101
5 µm 120 Å	2.1	00203-31009	09203-31009	00203-31010	00203-31011	00203-31012	00203-31013	00203-31014	00203-31015	00203-31016	-	00808-24006	00808-01107
	3.0	00203-31018	-	00203-31019	00203-31020	00203-31021	00203-31022	00203-31023	00203-31024	00203-31025	-	00808-24006	00808-01107
	4.0	00203-31027	-	00203-31028	00203-31029	00203-31030	00203-31031	00203-31032	00203-31033	00203-31034	00203-31035	00808-04006	00808-01101
	4.6	00203-31036	11203-31036	00203-31037	00203-31038	00203-31039	00203-31040	00203-31041	00203-31042	00203-31043	00203-31044	00808-04006	00808-01101
10 µm 120 Å	4.0	-	-	-	-	-	-	00203-41032	00203-41033	00203-41034	00203-41035	00808-05006	00808-01101
	4.6	-	-	-	-	-	-	00203-41041	00203-41042	00203-41043	00203-41044	00808-05006	00808-01101

300Å HPLC column provided. Please contact Welch or your local distributor for other dimensions.