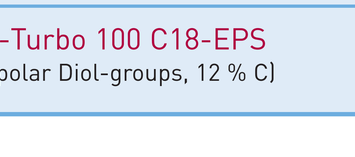
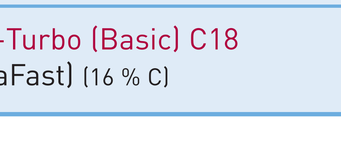
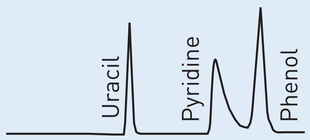
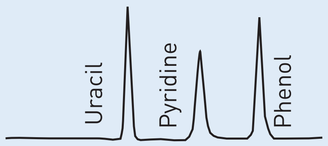
Dr. Maisch Column Selection Guide

If poor separation in early part of chromatogram*	Standard Phase:	If tailing with basic analytes or poor separation
“Hydrophilic” Phase:		Highly Base deactivated Phase:
Polar-Selectivity		Carbon content, Hydrophobicity, pH-Stability, Base Deactivation
Reprospher C18-Aqua (12 % C)	Reprospher C18 (16 % C)	Reprospher C18-DE (16 % C) Reprosil-Pur Basic C18 (17 % C) Reprosil Gold C18 (20 % C) Reprosil-Pur Basic C18-HD (25 % C)
	poor early separation 	
Reprospher C18-Aqua (12 % C) Reprosil-Pur RP-18-NE (14 % C) Reprosil -Pur C18-AQ** (15 % C)	Reprosil 100 C18 (15 % C, medium purity) 	Reprospher C18 (16 % C) 
	Tailing with Pyridine and poor separation	
Reprosil-Pur RP-18 NE (14 % C) Reprospher C18-Aqua (12 % C)	Reprosil-Pur C18-AQ** (15 % C)	Reprosil-Pur ODS-3 (17 % C)
	Reprosil-Pur Basic C18 (17 % C)	Reprosil-Pur Basic C18-HD (25 % C) Reprosil Gold C18 (20 % C)
Reprosil 80 ODS-1 (partially endcapped, 7 % C)	Reprosil 80 ODS-2 (12 % C)	
	Equisil ODS (10 % C)	Equisil BDS C18 (11 % C)
Gold-Turbo 100 C18-EPS (with polar Diol-groups, 12 % C)	Gold-Turbo (Basic) C18 (UltraFast) (16 % C)	Gold-Turbo XBD C18 (16 % C)

Red = High purity, so called Type B silicas. High purity phases show lower silanol activity.
* With Bases you can go the opposite way, if you take a basic pH and pH-stable phase like Reprosil-Gold or Basic C18-HD, or if you take ion pairings.
** Show also hydrophilic selectivity with high water content in the eluent. **Reprosil-Pur RP18-NE**= Not Endcapped C18 Phase. **Reprospher C18-Aqua**= C18/Diol phase. **Reprosil Gold / Basic** =very stable RP-Phases with double bound, bidentate, endcappings. **Reprospher C18-DE**= C18 phase with double, 2 step, endcapping. **XBD**= eXtra Base Deactivated Phase, **EPS**=Enhanced Polar Selectivity, **Gold-Turbo**= 1.5 µm, 1.8 µm and 2 µm Phases.

Phases in the same line are from the same silica type.