Your alternative to

Waters

UPLC and HPLC columns

The versatile and powerful VDSpher® phases allow for numerous applications in normal and reversed phase as well as HILIC chromatography. Our wide range of phases offers excellent alternatives to Acquity, Atlantis, Delta-Pak, Nova-Pak, Resolve, Spherisorb, Symmetry, SunFire, XBridge, XSelect, XTerra, µBondapak and µPorasil. Our recommendations are listed in the following tables. If you don't find the required phase on this list, please contact us to find a similar or alternative product from the wide range of VDSpher® phases.

Contents

1. Alternatives to Acquity

Waters	VDSpher®	
Acquity	**replacement recommendation**	comments
Acquity BEH C_{18}, 130Å,1.7µm	**U-VDSpher® PUR 100 C18-M-SE, 1.8µm**	use only in range of pH = 2 to 10 higher surface area and higher carbon load → longer retention expected
Acquity BEH C_8, 1.7µm	**U-VDSpher® PUR 100 C8-E, 1.8µm**	use only in range of pH = 2 to 7.5 higher surface area → longer retention expected
Acquity BEH Phenyl, 1.7µm	**U-VDSpher® PUR 100 Phenyl-E, 1.8µm**	use only in range of pH = 2 to 7.5 higher surface area → longer retention expected
Acquity BEH HILIC, 1.7µm	**U-VDSpher® PUR 100 SIL, 1.8µm**	use only in range of pH = 2 to 8 higher surface area → longer retention expected
Acquity HSS T3, 1.8µm	**U-VDSpher® PUR 100 C18-M-SE, 1.8µm**	higher surface area and higher carbon load → longer retention expected
Acquity HSS C_{18}, 1.8µm	**U-VDSpher® PUR 100 C18-E, 1.8µm**	higher surface area → longer retention expected
Acquity HSS CN, 1.8µm	**U-VDSpher® PUR 100 CN, 1.8µm**	endcapped higher surface area → longer retention expected

2. Alternatives to Nova-Pak

Waters	VDSpher®	
Nova-Pak	**replacement recommendation**	comments
Nova-Pak C_{18}, 4µm	**VDSpher® PUR 100 C18-E, 4µm**	higher surface area and higher carbon load → longer retention expected
Nova-Pak C_8, 4µm	**VDSpher® PUR 100 C8-E, 4µm**	higher surface area and higher carbon load → longer retention expected
Nova-Pak Phenyl, 4µm	**VDSpher® PUR 100 Phenyl-E, 4µm**	higher surface area and higher carbon load → longer retention expected
Nova-Pak CN, 4µm	**VDSpher® PUR 100 CN, 4µm**	higher surface area and higher carbon load → longer retention expected
Nova-Pak Silica, 4µm	**VDSpher® PUR 100 SIL, 4µm**	higher surface area → longer retention expected
Nova-Pak Prep HR C_{18}, 6µm	**VDSpher® PUR 100 C18-E, 5µm or 7µm**	higher surface area and higher carbon load → longer retention expected
Nova-Pak Prep HR Silica, 6µm	**VDSpher® PUR 100 SIL, 5µm or 7µm**	higher surface area → longer retention expected

3. Alternatives to Atlantis

Waters	VDSpher®	
Atlantis	**replacement recommendation**	comments
Atlantis T3, 3µm	**VDSpher® PUR 100 C18-M-SE, 3µm**	higher carbon load → longer retention expected
Atlantis T3, 5µm	**VDSpher® PUR 100 C18-M-SE, 5µm**	higher carbon load → longer retention expected
Atlantis T3, 10µm	**VDSpher® PUR 100 C18-M-SE, 10µm**	higher carbon load → longer retention expected
Atlantis dC_{18}, 3µm	**VDSpher® PUR 100 C18-M-E, 3µm**	higher carbon load → longer retention expected
Atlantis dC_{18}, 5µm	**VDSpher® PUR 100 C18-M-E, 5µm**	higher carbon load → longer retention expected
Atlantis dC_{18}, 10µm	**VDSpher® PUR 100 C18-M-E, 10µm**	higher carbon load → longer retention expected
Atlantis HILIC Silica, 3µm	**VDSpher® PUR 100 SIL, 3µm**	
Atlantis HILIC Silica, 5µm	**VDSpher® PUR 100 HILIC, 5µm**	
Atlantis HILIC Silica, 10µm	**VDSpher® PUR 100 SIL, 10µm**	

4. Alternatives to Delta-Pak

Waters	VDSpher®	
Delta-Pak	**replacement recommendation**	comments
Delta-Pak C_{18}, 100Å, 5µm	**VDSpher® PUR 100 C18-E, 5µm**	
Delta-Pak C_{18}, 300Å, 5µm	**VDSpher® OptiBio PUR 300 C18-E, 5µm**	
Delta-Pak C_4, 100Å, 5µm	**VDSpher® PUR 100 C4-E, 5µm**	
Delta-Pak C_4, 300Å, 5µm	**VDSpher® OptiBio PUR 300 C4-E, 5µm**	

5. Alternatives to Resolve

Waters	VDSpher®	
Resolve	**replacement recommendation**	comments
Resolve Silica, 5µm	**VDSpher® 100 SIL, 5µm**	higher surface area → longer retention expected
Resolve Silica, 10µm	**VDSpher® 100 SIL, 10µm**	higher surface area → longer retention expected
Resolve C_{18}, 5µm	**VDSpher® 100 C18-NE, 5µm**	higher surface area and higher carbon load → longer retention expected
Resolve C_{18}, 10µm	**VDSpher® 100 C18-NE, 10µm**	higher surface area and higher carbon load → longer retention expected
Resolve C_8, 10µm	**VDSpher® 100 C8-E, 10µm**	endcapped higher surface area and higher carbon load → longer retention expected
Resolve CN, 10µm	**VDSpher® 100 CN, 10µm**	endcapped higher surface area and higher carbon load → longer retention expected

6. Alternatives to Spherisorb

Waters	VDSpher®	
Spherisorb	**replacement recommendation**	comments
Spherisorb ODS2, 3µm	**VDSpher® PUR 100 C18-E, 3µm**	higher purity higher surface area and higher carbon load → longer retention expected
Spherisorb ODS2, 5µm	**VDSpher® 100 C18-E, 5µm**	higher purity higher surface area and higher carbon load → longer retention expected
Spherisorb ODS2, 10µm	**VDSpher® 100 C18-E, 10µm**	higher purity higher surface area and higher carbon load → longer retention expected
Spherisorb ODS1, 3µm	**VDSpher® PUR 100 C18-NE, 3µm**	higher purity higher surface area and higher carbon load → longer retention expected
Spherisorb ODS1, 5µm	**VDSpher® 100 C18-NE, 5µm**	higher purity higher surface area and higher carbon load → longer retention expected
Spherisorb ODS1, 10µm	**VDSpher® 100 C18-NE, 10µm**	higher purity higher surface area and higher carbon load → longer retention expected
Spherisorb ODSB, 5µm	**VDSpher® 100 C18-E, 5µm**	higher purity higher surface area and higher carbon load → longer retention expected
Spherisorb C_8, 3µm	**VDSpher® PUR 100 C8-E, 3µm**	higher purity higher surface area and higher carbon load → longer retention expected

6. Alternatives to Spherisorb (continued)

Waters	VDSpher®	
Spherisorb	**replacement recommendation**	comments
Spherisorb C_8, 5µm	**VDSpher® 100 C8-E, 5µm**	higher purity higher surface area and higher carbon load → longer retention expected
Spherisorb C_8, 10µm	**VDSpher® 100 C8-E, 10µm**	higher purity higher surface area and higher carbon load → longer retention expected
Spherisorb NH_2, 3µm	**VDSpher® PUR 100 NH_2, 3µm**	higher purity higher surface area and higher carbon load → longer retention expected
Spherisorb NH_2, 5µm	**VDSpher® 100 NH_2, 5µm**	higher purity higher surface area and higher carbon load → longer retention expected
Spherisorb NH_2, 10µm	**VDSpher® 100 NH_2, 10µm**	higher purity higher surface area and higher carbon load → longer retention expected
Spherisorb Phenyl, 3µm	**VDSpher® PUR 100 Phenyl-E, 3µm**	higher purity, endcapped higher surface area and higher carbon load → longer retention expected
Spherisorb Phenyl, 5µm	**VDSpher® 100 Phenyl-E, 5µm**	higher purity, endcapped higher surface area and higher carbon load → longer retention expected
Spherisorb Phenyl, 10µm	**VDSpher® 100 Phenyl-E, 10µm**	higher purity, endcapped higher surface area and higher carbon load → longer retention expected
Spherisorb CN, 5µm	**VDSpher® 100 CN, 5µm**	higher purity, endcapped higher surface area and higher carbon load → longer retention expected
Spherisorb CN, 10µm	**VDSpher® 100 CN, 10µm**	higher purity, endcapped higher surface area and higher carbon load → longer retention expected
Spherisorb OD/CN, 5µm	**VDSpher® 100 C18-H, 5µm**	higher purity higher surface area and higher carbon load → longer retention expected
Spherisorb W (Silica), 3µm	**VDSpher® PUR 100 SIL, 3µm**	higher purity higher surface area → longer retention expected
Spherisorb W (Silica), 5µm	**VDSpher® 150 SIL, 5µm**	higher purity
Spherisorb W (Silica), 10µm	**VDSpher® 100 SIL, 10µm**	higher purity higher surface area → longer retention expected

7. Alternatives to SunFire

Waters	VDSpher®	
SunFire	**replacement recommendation**	comments
SunFire C_8, 2.5µm	**VDSpher® MS 100 C8-B-DE, 2.5µm**	
SunFire C_8, 3.5µm	**VDSpher® PUR 100 C8-SE, 3.5µm**	
SunFire C_8, 5µm	**VDSpher® PUR 100 C8-SE, 5µm**	
SunFire C_8, 10µm	**VDSpher® PUR 100 C8-SE, 10µm**	
SunFire C_{18}, 2.5µm	**VDSpher® MS 100 C18-DE, 2.5µm**	
SunFire C_{18}, 3.5µm	**VDSpher® PUR 100 C18-SE, 3.5µm**	
SunFire C_{18}, 5µm	**VDSpher® PUR 100 C18-SE, 5µm**	
SunFire C_{18}, 10µm	**VDSpher® PUR 100 C18-SE, 10µm**	
SunFire Silica, 5µm	**VDSpher® PUR 100 SIL, 5µm**	
SunFire Silica, 10µm	**VDSpher® PUR 100 SIL, 10µm**	

8. Alternatives to µPorasil

Waters	VDSpher®	
µPorasil	**replacement recommendation**	comments
µPorasil, 10µm	**VDSpher® 100 SIL, 10µm**	spherical instead of irregular particles

9. Alternatives to Symmetry

Waters	VDSpher®	
Symmetry	**replacement recommendation**	comments
Symmetry C_{18}, 3.5µm	**VDSpher® PUR 100 C18-SE, 3.5µm**	
Symmetry C_{18}, 5µm	**VDSpher® PUR 100 C18-SE, 5µm**	
Symmetry C_8, 3.5µm	**VDSpher® PUR 100 C8-SE, 3.5µm**	
Symmetry C_8, 5µm	**VDSpher® PUR 100 C8-SE, 5µm**	
SymmetryPrep C_{18}, 7µm	**VDSpher® PUR 100 C18-E, 7µm**	
SymmetryPrep C_8, 7µm	**VDSpher® PUR 100 C8-E, 7µm**	
Symmetry 300 C_{18}, 5µm	**VDSpher® OptiBio PUR 300 C18-SE, 5µm**	
Symmetry 300 C_4, 5µm	**VDSpher® OptiBio PUR 300 C4-SE, 5µm**	

10. Alternatives to µBondapak

Waters	VDSpher®	
µBondapak	**replacement recommendation**	comments
µBondapak C_{18}, 10µm	**VDSpher® 100 C18-E, 10µm**	spherical instead of irregular particles higher carbon load → longer retention expected
µBondapak Phenyl, 10µm	**VDSpher® 100 Phenyl-E, 10µm**	spherical instead of irregular particles higher carbon load → longer retention expected
µBondapak CN, 10µm	**VDSpher® 100 CN, 10µm**	spherical instead of irregular particles
µBondapak NH_2, 10µm	**VDSpher® 100 NH_2, 10µm**	spherical instead of irregular particles

11. Alternatives to XBridge

Waters	VDSpher®	
XBridge	**replacement recommendation**	comments
XBridge C_{18}, 2.5µm	**VDSpher® MS 100 C18-B-DE, 2.5µm**	use only in range of pH = 2 to 10
XBridge C_{18}, 3.5µm	**VDSpher® PUR 100 C18-M-SE, 3.5µm**	use only in range of pH = 2 to 10
XBridge C_{18}, 5µm	**VDSpher® PUR 100 C18-M-SE, 5µm**	use only in range of pH = 2 to 10
XBridge C_{18}, 10µm	**VDSpher® PUR 100 C18-M-SE, 10µm**	use only in range of pH = 2 to 10
XBridge C_8, 2.5µm	**VDSpher® MS 100 C8-B-DE, 2.5µm**	use only in range of pH = 2 to 10
XBridge C_8, 5µm	**VDSpher® PUR 100 C8-M-SE, 5µm**	use only in range of pH = 2 to 10
XBridge Phenyl, 2.5µm	**VDSpher® MS 100 Phenyl-B, 2.5µm**	use only in range of pH = 2 to 7.5
XBridge Phenyl, 3.5µm	**VDSpher® PUR 100 Phenyl-B, 3.5µm**	use only in range of pH = 2 to 7.5
XBridge Phenyl, 5µm	**VDSpher® PUR 100 Phenyl-B, 5µm**	use only in range of pH = 2 to 7.5
XBridge HILIC, 3.5µm	**VDSpher® PUR 100 SIL, 3.5µm**	use only in range of pH = 2 to 8
XBridge HILIC, 5µm	**VDSpher® PUR 100 HILIC, 5µm**	use only in range of pH = 2 to 8
XBridge Peptide BEH C_{18}, 130Å, 3.5µm	**VDSpher® PUR 100 C18-M-SE, 3.5µm**	use only in range of pH = 2 to 10
XBridge Peptide BEH C_{18}, 130Å, 5µm	**VDSpher® PUR 100 C18-M-SE, 5µm**	use only in range of pH = 2 to 10
XBridge Peptide BEH C_{18}, 130Å, 10µm	**VDSpher® PUR 100 C18-M-SE, 10µm**	use only in range of pH = 2 to 10
XBridge Peptide BEH C_{18}, 300Å, 5µm	**VDSpher® OptiBio PUR 300 C18-TSE, 5µm**	use only in range of pH = 2 to 10
XBridge Peptide BEH C_{18}, 300Å, 10µm	**VDSpher® OptiBio PUR 300 C18-TSE, 10µm**	use only in range of pH = 2 to 10
XBridge Oligo BEH C_{18}, 2.5µm	**VDSpher® MS 100 C18-B-DE, 2.5µm**	use only in range of pH = 2 to 10

12. Alternatives to XSelect

Waters	VDSpher®	
XSelect	**replacement recommendation**	comments
XSelect HSS T3, 2.5µm	**VDSpher® MS 100 C18-B-DE, 2.5µm**	higher surface area and higher carbon load → longer retention expected
XSelect HSS T3, 3.5µm	**VDSpher® PUR 100 C18-M-SE, 3.5µm**	higher surface area and higher carbon load → longer retention expected
XSelect HSS T3, 5µm	**VDSpher® PUR 100 C18-M-SE, 5µm**	higher surface area and higher carbon load → longer retention expected
XSelect HSS C_{18}, 2.5µm	**VDSpher® MS 100 C18-B-DE, 2.5µm**	higher surface area → longer retention expected
XSelect HSS C_{18}, 3.5µm	**VDSpher® PUR 100 C18-M-SE, 3.5µm**	higher surface area → longer retention expected
XSelect HSS C_{18}, 5µm	**VDSpher® PUR 100 C18-M-SE, 5µm**	higher surface area → longer retention expected
XSelect HSS C_{18} SB, 2.5µm	**VDSpher® MS 100 C18-B, 2.5µm**	higher surface area and higher carbon load → longer retention expected
XSelect HSS C_{18} SB, 3.5µm	**VDSpher® PUR 100 C18-M, 3.5µm**	higher surface area and higher carbon load → longer retention expected
XSelect HSS C_{18} SB, 5µm	**VDSpher® PUR 100 C18-M, 5µm**	higher surface area and higher carbon load → longer retention expected
XSelect HSS CN, 2.5µm	**VDSpher® MS 100 CN-DE, 2.5µm**	endcapped higher surface area → longer retention expected
XSelect HSS CN, 3.5µm	**VDSpher® PUR 100 CN, 3.5µm**	endcapped higher surface area → longer retention expected
XSelect HSS CN, 5µm	**VDSpher® PUR 100 CN, 5µm**	endcapped higher surface area → longer retention expected

13. Alternatives to XTerra

Waters	VDSpher®	
XTerra	**replacement recommendation**	comments
XTerra MS C_{18}, 2.5µm	**VDSpher® MS 100 C18-B-DE, 2.5µm**	use only in range of pH = 2 to 10 higher surface area and higher carbon load → longer retention expected
XTerra MS C_{18}, 3.5µm	**VDSpher® PUR 100 C18-M-SE, 3.5µm**	use only in range of pH = 2 to 10 higher surface area and higher carbon load → longer retention expected
XTerra MS C_{18}, 5µm	**VDSpher® PUR 100 C18-M-SE, 5µm**	use only in range of pH = 2 to 10 higher surface area and higher carbon load → longer retention expected
XTerra MS C_{18}, 10µm	**VDSpher® PUR 100 C18-M-SE, 10µm**	use only in range of pH = 2 to 10 higher surface area and higher carbon load → longer retention expected
XTerra MS C_8, 2.5µm	**VDSpher® MS 100 C8-B-DE, 2.5µm**	use only in range of pH = 2 to 10 higher surface area → longer retention expected
XTerra MS C_8, 5µm	**VDSpher® PUR 100 C8-M-SE, 5µm**	use only in range of pH = 2 to 10 higher surface area → longer retention expected
XTerra Phenyl, 3.5µm	**VDSpher® PUR 100 Phenyl-E, 3.5µm**	use only in range of pH = 2 to 7.5 higher surface area → longer retention expected
XTerra Phenyl, 5µm	**VDSpher® PUR 100 Phenyl-SE, 5µm**	use only in range of pH = 2 to 9 higher surface area → longer retention expected

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