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# **Grace: Vydac**

## Vydac TP



Vydac TP was the first range of wide pore media phases developed in the Vydac range and became the industry standard for peptide and protein separations. The large pores of the 300A TP silica give polypeptide molecules complete access to the interior of the silica pores.

#### The general features of Vydac TP include:

- Long column lifetime and negligible phase leaching
- Reliable protein purifications, scalable from analytical to preparative scale
- Referenced in a large number of patents and publications •

### Vydac TP phase specifications

Vydac TP Phase	Functional group	Particle size (um)	Chromatographic Properties	Application/Benefit	USP Code
Vydac 218TP	C18	3, 5, 10	First generation polymeric C18 phase with unique selectivity	Small polypeptides 4-5K MW, enzymatic digest fragments, natural and synthetic peptides, multi-ring compounds	L1
Vydac 238TP	C18	5	First generation monomeric C18 phase	Use for same applications as 218TP, but offers different C18 selectivity	L1
Vydac 208TP	C8	5	Less hydrophobic than C18TP phase	Polypeptides 10-20K MW	L7
Vydac 214TP	C4	5,10	First generation C4 phase	Glycoproteins, haemoglobin variants, histones, insulin variants, membrane proteins	L26
Vydac 214ATP	C4	5	C4 phase with lower level of endcapping	Optimised for analysis of human growth hormone	L26
Vydac 219TP	Diphenyl	5,10	Lowest capacity first generation diphenyl phase	Polypeptides with aromatic side chains, large hydrophobic proteins, membrane-spanning peptides, lipid peptides, fusion proteins from inclusion bodies	L11
Vydac 201TP	C18	5, 10	Non-endcapped C18 phase	Developed for separation of PAHs	L1
Vydac 202TP	C18	5	Higher carbon load than 201TP	Developed for separation of PAHs	L1



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Vydac 218TP and 238TP are used for small polypeptides of 4-5kDa, enzymatic digest fragments, natural and synthetic peptides and multi-ring compounds.

Vydac 208TP is recommended for polypeptides of molecular weight 10-20kDa.

Vydac 214TP is recommended for the analysis of glycoproteins, haemoglobin variants, histones, insulin variants and membrane proteins.

Vydac 219TP is suitable for polypeptides with aromatic side chains, large hydrophobic proteins, membrane-spanning peptides, lipid peptides and fusion proteins from inclusion bodies.

## Vydac MS

Vydac MS columns are a later development from Grace for the reversed-phase HPLC separation of biomolecules. A proprietary surface treatment and bonding process give Vydac MS columns unique selectivity. A variety of reversed-phases makes this product line suitable for the analysis of small peptides to large intact, undenatured proteins.

#### The general features of Vydac MS include:

- 300A pore size spherical silica
- Five reversed-phase chemistries
- Excellent peak shape with little or no TFA
- High protein recoveries make scale-up easy

#### Vydac MS Phase Specifications

Vydac MS Phase	Functional Group	Particle Size (um)	Chromatographic Properties	Application/Benefit	USP Code
Vydac 218MS	C18	5, 10	Polymeric bonding, highest hydrophobic interaction and unique geometric selectivity	Use for simple enzymatic digests (<12 proteins) or biomolecules 0 - 5k MW	L1
Vydac 238MS	C18	5	Monomeric bonding offers increased peptide interaction and generally yields higher peak counts	Use for same applications as 218MS, but offers different C18 selectivity	L1
Vydac 208MS	C8	5	Lower hydrophobicity is better for larger biomolecules	Ideal for biomolecules 5-10K MW	L7
Vydac 214MS	C4	5, 10	Lower capacity than C18 or C8, suitable for hydrophobic proteins or when minimal organic solvent is desired	Ideal for biomolecules >10K MW, undenatured intact proteins, antibodies, oligonucleotides, human growth hormone	L26
Vydac 219MS	Diphenyl	5	Lowest capacity, aromatic functional groups	Highly selective for proteins with aromatic side chains	L11

The improved selectivity for peptides on the Vydac MS columns results in better primary structure definition and easier identification of degradation products and other protein characteristics.

Vydac 218MS and 238MS are used for simple enzymatic digests (< 12 proteins) or biomolecules (0-5kDa).

Vydac 208MS is ideal for biomolecules of molecular weight 5-10kDa.

Vydac 214MS has lower capacity than C18 or C8 and is suitable for hydrophobic proteins or when minimal organic solvent is required. It is recommended for biomolecules of > 10kDa molecular weight, undenatured intact proteins, antibodies, oligonucleotides, human growth hormone.

Vydac 219MS has the lowest capacity and is highly selective for proteins with aromatic side chains.



## Other Products available from SepaChrom



- HPLC, UHPLC Silica Based Columns for Analytical Applications
- Vydac® Columns for Proteins and Peptides Separations
- Polymer Base Columns for Carbohydrate & Organic Acids Analysis Chiral HPLC Columns
- Ion Chromatography Columns for Anions and Cations Analysis



#### Irregular and Spherical Silica Gel for Flash, Prep & Industrial Purification Bonded Silica C18, Cyano, Diol, Amino Wide Range Porosity (30Å- 2500Å) and

- Particle Size (10µ-200µ) for Any Application Polymer Based Resin for Reversed
- Phase and Ion Exchange Chromatography



- 10mm-25mmID Packed Prep Columns for Lab Scale Purification 25mm-100mmID Packed & Empty, Flanged & Spring Column Technology 50mm-2000mmID Process Scale Chroma
  - tography Columns & Systems, Flanged & DAC Technology Scale-up Method Development & Packing
  - Scale-up Method Development & Packing Service



Instruments for Flash and Prep Chromatography up to 750mL/min & 250 bar Pressure.

- 190-840 Multi Wavelength & Scan Collection, Integrated ELSD, MS Simple Quad Detector Flash Columns for All Existing Flash Instru-
- ments : Silica, Reverse Phase, CN, Diol, NH2, Chiral Phases, 15µ to 50µ Particle Size



Silica Based SPE Cartridges for Pharma, Environmental, Food&Beverage Applications.

Polymer Base SPE Cartridges for Clinical & Forensic Applications. Ion Chromatography SPE Cartridges Accessories for SPE

Siringe Filters & QuEChERS



Autosampler Vials for HPLC, IC e GC

Sampling Vials Head Space Vials

- Crimper & Decapper and
- Sampling Accessories



- High Performance GC Capillary Column SepaChrom :
- SepaFlex : Full Range of GC Capillary Columns, MS Columns, ChiralFlex, UltraMet-HT
- SpeedyFlex Econo-Sep : Batch Tested Common GC
- Capillary Columns GC Capillary Column Heliflex® & Eco-
- no-Cap™



SS & PEEK Tubing for Analytical,Preparative and Ion Chromatography Fittings, Ferrule & Valves for HPLC, IC and GC Syringes and Septa for GC Traps for GC Gas Lines Gas Generators

### **Company Profile**

#### <u>About us :</u>

*SepaChrom* is a new company specialising in Chromatography. *SepaChrom* is the brainchild of the founders who wanted to create a dedicated and unique company able to support Chromatography Users in optimizing their challenges.

Our Core competence is the manufacture, sale and support of *High-Quality* products for *GC*, *Analytical* and *Preparative* scale *HPLC* and *Flash* purification, including consumables and accessories, through *Process* scale purification.

### Our Mission :

Our team has decades of experience, which, combined with a range of High Quality selected products and the most efficient technological solutions, allows *SepaChrom* to support Pharma, Biotech, Chemical, Food and Beverage, Cosmetic, Environmental, Clinical and Petrochemical industries, in R&D departments as well in QC laboratories and Production. Our commitment is to provide the Highest level of Technical Support that Chromatographers expect from *Your Specialist in Chromatography Customers in Mind* :

#### Customers in Mind :

The success of *SepaChrom* is driven by complete *satisfaction* of our customers, and consequently by their success.

*SepaChrom*'s expertise results in High-Quality *pre & post* sale support to the Chromatographic Users. This includes *fast delivery* of your products from our warehouse to your location.



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