

Product Data Sheet

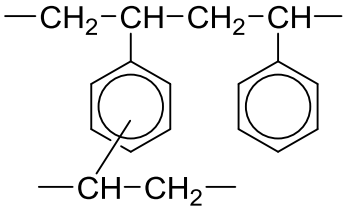
DIAION™ HP20

DIAION™ HP20 is based on a unique rigid polystyrene/divinylbenzene matrix. A controlled pore size distribution and large surface area offer excellent resolution and the capacity for a wide range of molecules, from small peptides and oligonucleotides up to large proteins.

DIAION™ HP20 is characterized by:

- >> Unique pore size distribution
- >> Excellent batch-to-batch reproducibility
- >> Wide application
- >> High chemical and physical stability
- >> Excellent pressure/flow characteristics

Physical and chemical properties

Grade Name	DIAION™ HP20	
Bead Form	Spherical, porous	
Matrix	Polystyrene/divinylbenzene	
Chemical Structure		
Shipping Density*	g/L	690
Water Content	%	55 - 65
Particle Size Distribution thr. 250 µm	%	10 max.
Effective Size	mm	0.25 min.
Uniformity Coefficient	-	1.6 max.
Particle Density*	g/mL	1.01
Specific Surface Area*	m ² /g	590
Pore Volume*	mL/g	1.3
Pore Radius*	Å	290

Note : properties with a mark "*" are referential data.

Swelling ratio in various solvents

Methanol	1.13
Ethanol	1.24
2-Propanol	1.17
Acetone	1.24
Toluene	1.25
Acetonitrile	1.17
Water	1.00



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Pore size distribution

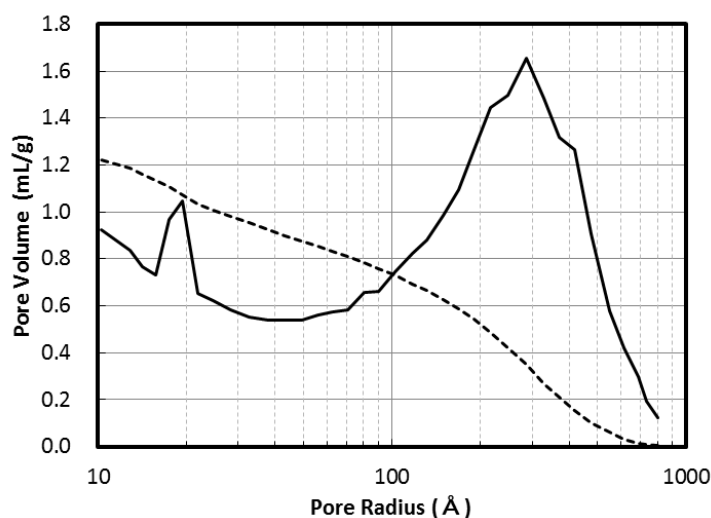


Fig. 1 Pore size distribution of HP20

Recommended Operating Conditions

Maximum Operating Temperature	°C	130
Operating pH Range		0 - 14
Minimum Bed Depth	mm	800
Flow rate	BV/h	Loading 0.5 - 5
	BV/h	Displacement 0.5 - 2
	BV/h	Regeneration 0.5 - 2
	BV/h	Rince 1 - 5
Regenerant		
	Organic solvents for hydrophobic compounds	
	Bases for acidic compounds	
	Acids for basic compounds	
	Buffer solution for pH sensitive compounds	
	Water for an ionic solution	
	Hot steam for volatile compounds	



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Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of DIAION™ HP20 resin in normal down flow operation is shown in the graphs below.

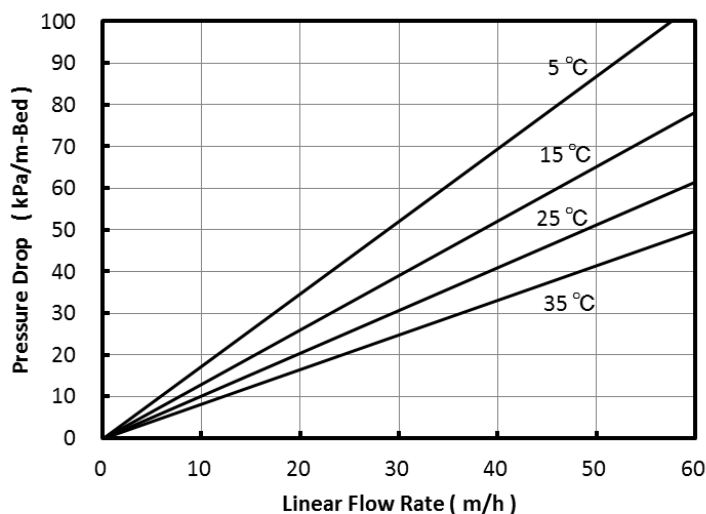


Fig. 2 Pressure Drop of HP20

FDA status

DIAION™ HP20 may be used to process food and beverage products and isolate specialized food additives as intended and such used may be said to fully comply with the Federal Food, Drug, and Cosmetic Act.

Applications

- Purification of small peptides, oligonucleotides and proteins
- Adsorption of vitamins, antibiotics, enzymes, steroids and other substance from fermentation solutions
- Decolorization of various sugar solutions
- Adsorption of fatty acids
- Removal of phenol
- Adsorption of various perfume
- Decolorization and purification of various chemicals

Notice

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