

## Product Data Sheet

## DIAION™ DSR03

DIAION™ DSR03 is a gel type amphoteric resin. It has both weakly acidic cation and strongly basic anion functionality. It is recommended for ion retardation chromatography and applied to removal of salts from organic solutions.

## Product

Grade Name	DIAION™ DSR03	
Type	Amphoteric Resin	
Matrix	Styrene-DVB, Gel	
Chemical Structure		
Functional Group	Quaternary Amine, Carboxylate	
Ionic Form	Inner Salt	

## Specification

Whole Bead Count	-	95 min.
Total Exchange Capacity	meq/mL	0.75 min.
Salt Splitting Capacity	meq/mL	0.0015 max.
Water Content	%	49 - 55
Particle Size Distribution thr. 210 μm	%	1 max.
Particle Size Distribution 240 - 280 μm	%	85 min.

## Typical Properties

Shipping Density	g/L	760
Mean Particle Size	μm	260
Particle Density	g/mL	1.09

## Recommended Operating Conditions

Maximum Operating Temperature	°C	60
Effective pH Range		4 - 10
Minimum Bed Depth	mm	800
Service Flow Rate	BV/h	2 - 10
Regenerant		Water
Regenerant Flow Rate	BV/h	2 - 10
Total Rinse Requirement	BV	10 - 20

1 BV (Bed Volume) = 1 m<sup>3</sup>/m<sup>3</sup>-resin

## Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of DIAION™ DSR03 resin in normal down flow operation is shown in the graphs below.

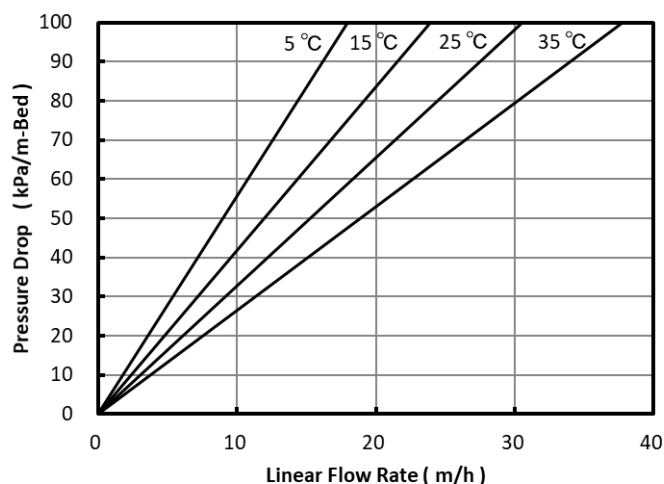


Fig. 1 Pressure Drop of DSR03

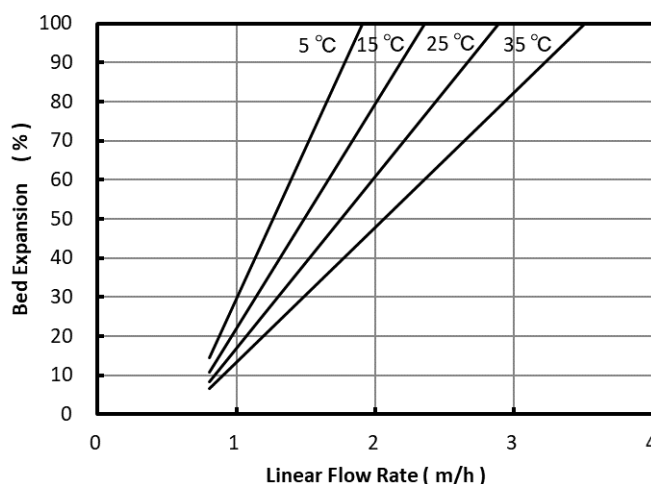


Fig. 2 Bed Expansion of DSR03

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