

## Product Data Sheet

## DIAION™ WK100

DIAION™ WK100 is a methacrylic-type weakly acidic cation exchange resin. It has carboxylic acid functionality with high regeneration efficiency. A wide range of applications, especially in a field of purification of pharmaceuticals, is recommended.

## Product

Grade Name	DIAION™ WK100
Type	Weak Acid Cation
Matrix	Methacrylic, Porous
Functional Group	Carboxylic Acid
Ionic Form	H <sup>+</sup>

## Specification

Whole Bead Count	-	95 min.
Total Capacity	meq/mL	2.8 min.
Water Content	%	45 - 55
Particle Size Distribution on 1180 µm	%	5 max.
Particle Size Distribution thr. 300 µm	%	1 max.
Effective Size	mm	0.40 min.
Uniformity Coefficient	-	1.6 max.

## Typical Properties

Shipping Density	g/L	650
Mean Particle Size	µm	550
Particle Density	g/mL	1.14
Total Swelling (H <sup>+</sup> to Na <sup>+</sup> )	%	70

## Recommended Operating Conditions

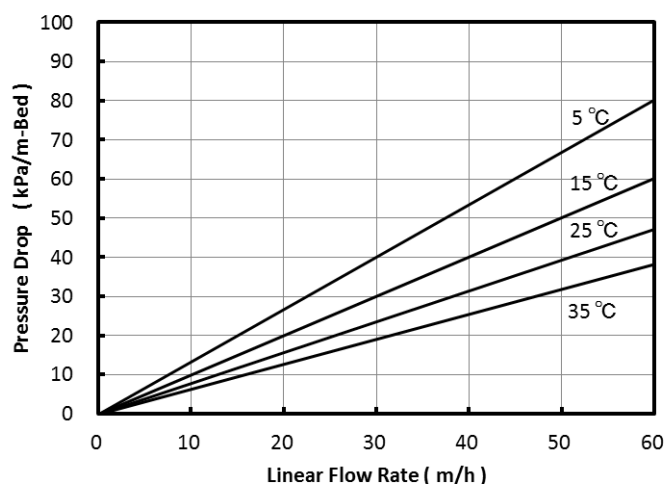
Maximum Operating Temperature	°C	150
Operating pH Range		5 - 14
Minimum Bed Depth	mm	800
Service Flow Rate	BV/h	5 - 40
Regenerant		HCl
Regenerant Concentration	%	HCl 1 - 5
Regenerant Level	% of ionic load	110
Regenerant Flow Rate	BV/h	2 - 6
Total Rinse Requirement	BV	10 - 20

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

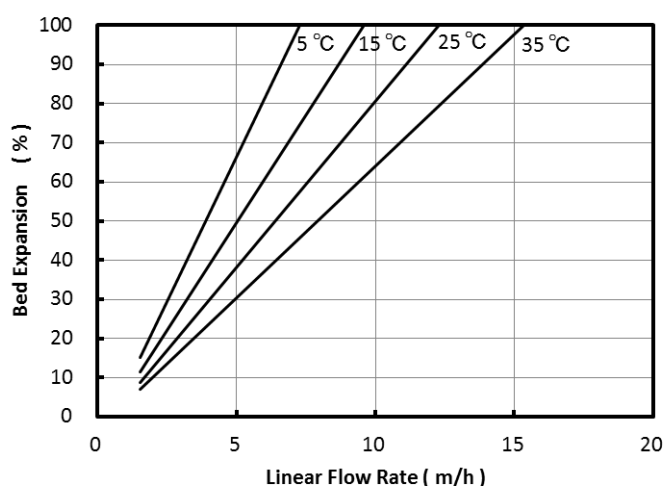


### Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of DIAION™ WK100 resin in normal down flow operation is shown in the graphs below.



**Fig. 1 Pressure Drop of WK100**



**Fig. 2 Bed Expansion of WK100**

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