Technical Data

Purolex resin comparison

Gel strong acid cation exchange resins for use in water softening applications

Purolex PRC 107E, ***PRC 108E*** and ***PRC 1010E*** - premium grade gel strong acid cation exchange resins.
They produced by sulfonated of styrene-divinylbenzene (DVB) copolymers in standard Gaussian size distribution.
It has excellent chemical and physical stability and kinetic exchange capacity.
Purolex:

- in **sodium form** is widely used for water softening to **reduce total hardness**;
- in **hydrogen form**, it also can be used for **water demineralization**.

1. Typical physical & chemical characteristics:

Name of product:		PRC 107E	PRC 108E	PRC 1010E
Parameter name:				
Total exchange capacity, (eq/L)	Na+ form	≥1,9	≥2,0	≥2,2
	H+ form	≥1,8	≥1,9	≥2,0
Moisture retention, (%)	Na+ form	45 - 50	43 - 48	38 - 43
	H+ form	51 - 56	48 - 53	43 - 59
Particle size range, (%)		0,315-1,25 mm≥95	0,315-1,25 mm≥95	0,315-1,25 mm≥95
Whole uncracked beads after attrition (%)		≥96	≥96	≥96
Shipping weight, (g/ml)	Na+ form	0,77 - 0,87	0,78 - 0,88	0,80 - 0,88
	H+ form	0,73 - 0,83	0,74 - 0,84	0,78 - 0,83
Specific gravity, (g/ml)	Na+ form	1,25 - 1,29	1,26 - 1,30	1,28 - 1,32
	H+ form	1,17 - 1,22	1,19 - 1,23	1,22 -1,28
Effective size, (mm)		0,4 - 0,6	0,4 - 0,6	0,4 - 0,6
Uniformity coefficient		<1,7	<1,7	<1,7
Reversible swelling, Ca^{2+} or $Na^{+} \rightarrow H^{+}$, (%)		<8	<8	<8

2. Suggested Operating Condition:

Parameter name:	
Max, Operating Temp, °C:	$OH^{-} \leq 60°C$ $Cl^{-} \leq 80°C$
pH Range:	0-14
Service flow rate	5-50 BV/h
Regenerant	10-15% NaCl, 4-10% HCl, 1-8% H_2SO_4

3. Analogues:

Purolex PRC 107E	Purolite C100E	Dowex HCR S/S
Purolex PRC 108E	Lewatit S 1567	Canature 001*8
Purolex PRC 1010E	Best exchange capacity in the market	