

Lanlang® TC004

Industry Grade gel type strong acid cation exchange resin

Used for water softening and demineralization



PRODUCT DESCRIPTION

Lanlang® TC004 is a premium grade gel type strong acid cation exchange resin produced by sulfonation of styrene-divinylbenzene (DVB) copolymers in standard Gaussian size distribution. It has excellent chemical, physical and thermal stability. TC004 in sodium form is widely used for water softening to reduce total hardness.

BASIC FEATURES

Application:	Water softening, demineralization
Polymer matrix structure:	Gel polystyrene crosslinked with divinylbenzene (DVB)
Appearance:	Amber, spherical beads
Functional Group:	Sulphonic acid
Ionic form as shipped:	Na ⁺

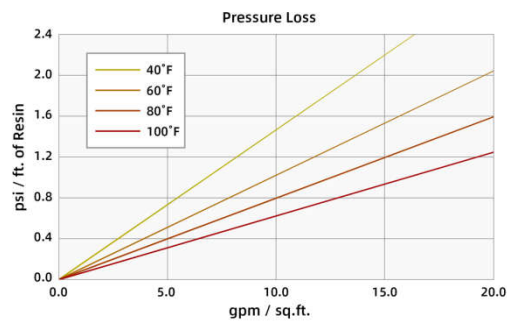
SUGGESTED OPERATING CONDITIONS

NO.	ITEM	SPEC
1	Max operating temperature	120 °C
2	PH range	0-14
3	Service flow rate	5-50 BV/h
4	Regenerate	10-15% NaCl, 4-10% HCl, 1-8% H ₂ SO ₄

PHYSICAL AND CHEMICAL PROPERTIES

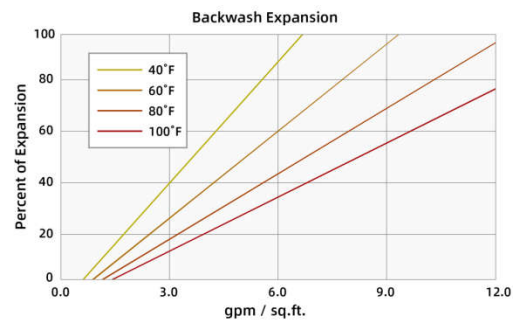
NO.	ITEM	SPEC
1	Total exchange capacity (eq/L)	≥1.4
2	Moisture retention (%)	54-62
3	Particle size range (%)	0.315-1.25mm≥95
4	Whole uncracked beads after attrition (%)	≥96
5	Shipping weight (g/ml)	0.75-0.80
6	Specific gravity (g/ml)	1.25-1.29
7	Effective size (mm)	0.4 - 0.6
8	Uniformity coefficient	<1.7
9	Reversible swelling, Ca ²⁺ → Na ⁺ (%)	<8
10	Free moisture (%)	<2

HYDRAULIC PROPERTIES



PRESSURE LOSS

The graph above shows the expected pressure loss of Lanlang TC004 per foot of bed depth as a function of flow rate at various temperatures.



BACKWASH

The graph above shows the expansion characteristics of Lanlang TC004 as a function of flow rate at various temperatures.