

# PRODUCT DATA SHEET



## Lanlang<sup>®</sup> TC001D

Macroporous type strong acid cation exchange resin

Used for water softening and demineralization

Lanlang<sup>®</sup> TC001D is a premium grade gel type strong acid cation exchange resin produced by sulfonated styrene-divinylbenzene (DVB) copolymers in standard Gaussian size distribution. Its macroporous structure makes it can adsorb soluble organic molecules and can resist to osmotic & mechanical shock and oxidation. TC001D in sodium form could be used for water softening to reduce total hardness as well as softening of sugar solution. Combining with anion exchange resin (in hydroxide form), TC001D in hydrogen form is used for variety of demineralization application including condensate polishing.

### Basic Features:

Application:	Water softening, demineralization
Polymer matrix structure:	Macroporous polystyrene crosslinked with divinylbenzene (DVB)
Appearance:	Tan, spherical beads
Functional Group:	Sulphonic acid
Ionic form as shipped:	Na <sup>+</sup> or H <sup>+</sup> when ordered as TC001D-H

### Physical and Chemical Properties:

NO.	ITEM		SPEC
1	Total exchange capacity (eq/L)	Na <sup>+</sup> form	≥1.8
		H <sup>+</sup> form	≥1.7
2	Moisture retention (%)	Na <sup>+</sup> form	45-50
		H <sup>+</sup> form	48-58
3	Particle size range (%)		0.315-1.25 mm≥95
4	Whole uncracked beads after attrition (%)		≥96
5	Shipping weight (g/ml)	Na <sup>+</sup> form	0.77-0.85
		H <sup>+</sup> form	0.74-0.80
6	Specific gravity (g/ml)	Na <sup>+</sup> form	1.25-1.28
		H <sup>+</sup> form	1.16-1.24
7	Effective size (mm)		0.4 - 0.6
8	Uniformity coefficient		<1.7
9	Reversible swelling, Na <sup>+</sup> → H <sup>+</sup> (%)		<5

### Suggested Operating Conditions:

NO.	ITEM	SPEC
1	Max operating temperature	120 °C
2	PH range	0-14
3	Service flow rate	5-170 BV/h
4	Regenerant	10-15% NaCl, 4-10% HCl, 1-8% H <sub>2</sub> SO <sub>4</sub>