

# Safety data sheet



KATEX 25 L

A High Capacity Cation Exchange Resin for Domestic Applications

Product	Type	Matrix	Functional group
KATEX	Strong acid cation	Styrene-DVB, gel	Sulfonic acid

Guaranteed Sales Specifications		Na <sup>+</sup> form
Total exchange capacity, min.	eq/L kgr/ft <sup>3</sup> as CaCO <sub>3</sub>	1.9 41.5
Bead size distribution range†		
300 - 1,200 µm, min.	%	90
< 300 µm, max.	%	1
Whole uncracked beads, min.	%	90
Color throw, as packaged, max.	APHA	20
Acidity range	pH	7.0 - 9.5

Typical Physical and Chemical Properties		Na <sup>+</sup> form
Water content	%	48 - 52
Total swelling (Ca <sup>++</sup> → Na <sup>+</sup> )	%	5
Particle density	g/mL	1.30
Shipping weight	g/L lbs/ft <sup>3</sup>	800 50

## Recommended Operating Conditions

- Maximum operating temperature 120°C (250°F)
- pH range 0 - 14
- Bed depth, min. 800 mm (2.6 ft)
- Flow rates:
  - Service/fast rinse 5 - 50 m/h (2 - 20 gpm/ft<sup>2</sup>)
  - Backwash See Figure 1
  - Co-current regeneration/displacement rinse 1 - 10 m/h (0.4 - 4 gpm /ft<sup>2</sup>)
- Total rinse requirement 3 - 6 Bed volumes
- Regenerant: 8 - 12% NaCl

† For additional particle size information, please refer to Particle Size Distribution Cross Reference Chart (Form No. 177-01775).

# Safety data sheet

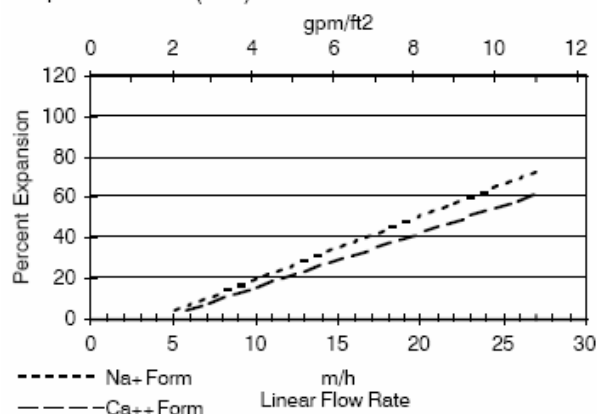


KATEX 25 L

A High Capacity Cation Exchange Resin for Domestic Applications

**Figure 1. Backwash Expansion Data**

Temperature = 25°C (77°F)



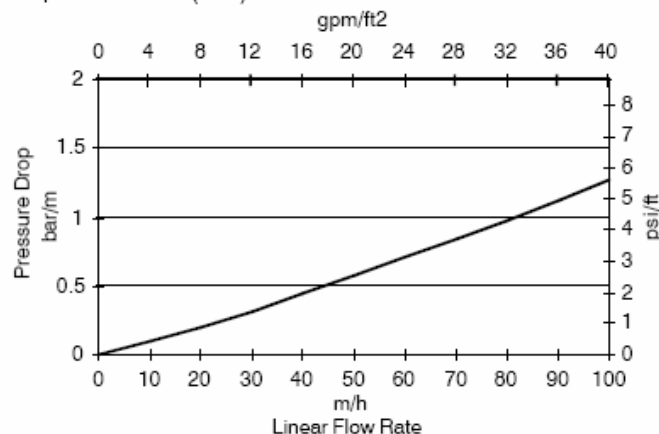
**For other temperatures use:**

$$F_T = F_{77°F} [1 + 0.008 (T_F - 77)], \text{ where } F \equiv \text{gpm/ft}^2$$

$$F_T = F_{25°C} [1 + 0.008 (1.8T_C - 45)], \text{ where } F \equiv \text{m/h}$$

**Figure 2. Pressure Drop Data**

Temperature = 20°C (68°F)



**For other temperatures use:**

$$P_T = P_{20°C} / (0.026 T_C + 0.48), \text{ where } P \equiv \text{bar/m}$$

$$P_T = P_{68°F} / (0.014 T_F + 0.05), \text{ where } P \equiv \text{psi/ft}$$

**KATEX Ion Exchange Resins**  
**For more information about DOWEX resins, call the Dow Liquid Separations business:**

North America: 1-800-447-4369  
 Latin America: (+55) 11-5188-9222  
 Europe: (+32) 3-450-2240  
 Pacific: +60 3 7958 3392  
 Japan: +813 5460 2100  
 China: +86 21 2301 9000

Warning: Oxidizing agents such as nitric acid attack organic ion exchange resins under certain conditions. This could lead to anything from slight resin degradation to a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.

Notice: No freedom from any patent owned by Seller or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Seller assumes no obligation or liability for the information in this document. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.