

# Resinex™ CAT-1

## Strong acid cation exchange resin for catalysis

**Resinex™ CAT-1** is a high purity, premium grade, strongly acidic macroporous-type cation exchange resin in spherical bead form, specially designed as a heterogeneous catalyst for the processing of organic and aqueous liquids and for organic reactions e.g. MTBE, TAME and ETBE.

The macroporous matrix offers a high mechanical stability, the extended capacity and the special pore structure enables **Resinex™ CAT-1** to be used in polar and non-polar media and for base adsorption in aqueous and organic liquids.

### Typical Properties

Type	Crosslinked polystyrene divinylbenzene
Form	macroporous, opaque, spherical beads
Functional group	Sulfonic acid
Whole bead count	95% min.
Ionic form, as shipped	H <sup>+</sup>
Bead size	(≥ 90%) 0.45 - 1.25 mm
Uniformity coefficient	1.60 max.
Bulk density, as shipped	830 kg/m <sup>3</sup>
Real density	1.25 g/cm <sup>3</sup>
Water retention	45 - 55%
Total capacity	1.75 eq/l min.
Surface area (BET)	40-50 m <sup>2</sup> /g
Pore diameter	200-300 Å
Stability, temperature	120°C
Storage, temperature	4-50°C
Stability, pH	1-14
Storability	2 years
Storage condition	under roof, dry

### Key Features and Benefits

- **High Integrity Beads**  
Excellent resistance to mechanical degradation ensures low pressure drop
- **Extended Operating Capacity**  
Economical Advantage
- **Special Pore Structure**  
Enables the usage for organic liquids

### Typical Applications

- MTBE, TAME, ETBE
- Esterification, Etherification, condensation and alkylation of polar and non-polar molecules
- Cation removal
- Adsorption from organic and aqueous liquids

### Standard Packaging

- 25 lit. PE valve bag
- 1000 litre big bag

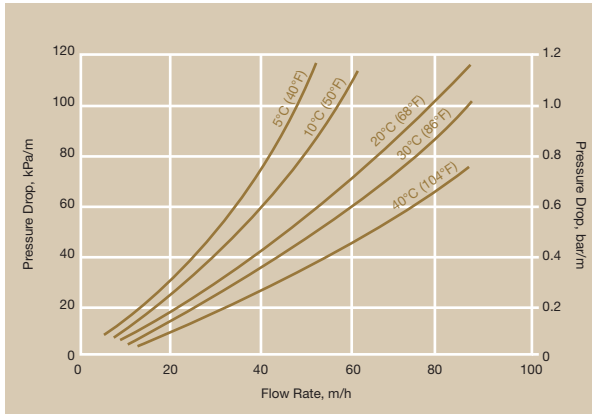


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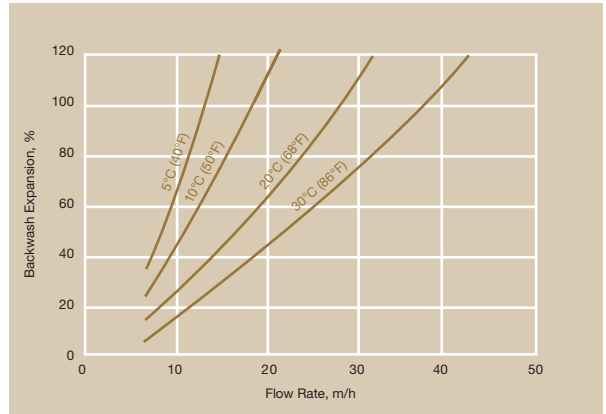
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### Pressure Drop



### Backwash Expansion



### Product Packing



25 lit. polyethylene valve bag  
48 bags per pallet



Polypropylene FIBCs  
(big bag), 1.000 lit.



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**CAUTION** Strong oxidizing agents such as nitric acid can react violently with ion exchange resins and cause explosive type reactions. Before using strong oxidants, consult sources knowledgeable in the handling of these materials.



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