

GENERAL TECHNOLOGIES, SPC

- High-Quality Services & Products

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A451 (Formerly D301) **MACROPOROUS WEAK BASE ANION ION EXCHANGE RESIN** (Designed for use in high purity water treatment applications)

Product Description

A451 (free-base or OH form) resin is a high capacity, organic fouling resistant macroporous weak base anion exchange resin.

It can be used in the preparation of pure water, especially for water source with higher salt and organic content. It is also used in treating electroplating wastewater to recover chromium.

Typical Physical, Chemical & Operating Characteristics

Polymer Structure	Polystyrene cross-linked with Divinylbenzene
Physical Form and Appearance	Opaque spherical beads
Whole Bead Count	90% Min.
Functional Groups	R-N ⁺ (CH ₃) ₂ H ₂ O
Ionic Form (as shipped)	Free Base
Shipping Weight, approx.	640 g/l (40 lb./ft. ³)
Mesh Size (U.S. Std)	16-50
Moisture retention, Na⁺ form	48-58%
Total Capacity	>1.4 meq/ml
pH Range, Stability	0-9

CHEMICAL AND THERMAL STABILITY

A451 resin is insoluble in dilute or moderately concentrated acids, alkalis, and in all common solvents. However, exposure to significant amounts of free chlorine, "hypochlorite" ions, or other strong oxidizing agents over long periods of time will eventually break down the crosslinking. This will tend to increase the moisture retention of the resin, decreasing its mechanical strength, as well as generating small amounts of extractable breakdown products. It is thermally stable and is recommended for application temperature lower than 100°C (212 °F).