

GENERAL TECHNOLOGIES, SPC

- High-Quality Services & Products

Tel: 913-766-5566, Fax: 253-663-9333
Web: <http://gtspc.com>, Email: info@gtspc.com

D840 - H CHELATING WEAK ACID CATION EXCHANGE RESIN (Designed for selective heavy metal removal in wastewater treatment applications)

Product Description

D840 (H form) resin is a premium grade, macroporous chelating exchange resin with thiuronium functional groups. It is designed to chelate/remove many heavy metal cations, including free state mercury and noble metals, such as silver, gold, platinum and palladium. Its high selectivity allows it to remove mercury down to extremely low ppb levels.

D840 (H form) resin has even particle size and good mechanical strength. High concentrations of sulfates and chlorides normally do not affect its selectivity to heavy metals, but the presence of chelating or complexing agents may affect the operating capacity.

Typical Physical, Chemical & Operating Characteristics

Polymer Structure	Polystyrene cross linked with Divinylbenzene
Physical Form and Appearance	amber spherical beads
Whole Bead Count	93% Min.
Functional Groups	$\text{R-CH}_2\text{-S-C}=\text{(NH)}\begin{matrix} \backslash \\ \text{NH}_2 \end{matrix}$ (Thiuronium)
Ionic Form (as shipped)	H ⁺
Shipping Weight, approx.	720 g/l (45 lb./ft. ³)
Mesh Size (U.S. Std)	16-50
Moisture retention, H ⁺ form	52-60%
Total Capacity in hydrogen form	>1.2 meq/ml
pH Range, operating	2-6

CHEMICAL AND THERMAL STABILITY

D840 resin is insoluble in dilute or moderately concentrated acids, alkalies, and in all common solvents. However, exposure to even small amounts of free chlorine, "hypochlorite" ions, or other strong oxidizing agents may eventually break down the functional groups. This will tend to generate small amounts of extractable breakdown products. The product is thermally stable to higher than 80 °C (175 °F).