GENERAL TECHNOLOGIES, SPC

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A351 (Formerly D201) - Cl

TYPE I MACROPOROUS STRONG BASE ANION EXCHANGE RESIN

(Designed for use in de-ashing and high purity water applications)

Product Description

A351(Cl) resin is a highcapacity, macroporous polystyrene Type I strong base anion exchange resin designed for use in deashing and industrial demineralization applications to remove anion impurities from water.

Its macroporous matrix provides physical stability and excellent resistance to osmotic shock. It is also more resistant to organic fouling than gel or porous gel type of strong base anion resins (such as A307 and A304).

A351(Cl) resin can also be used in dealkalization and demineralization in high-organic waters, and heavy-metal removal applications.

Typical Physical, Chemical & Operating Characteristics

Polymer Structure	Polystyrene cross-linked with Divinylbenzene
Physical Form and Appearance	Tough white spherical beads
Whole Bead Count	90% Min.
Functional Groups	$R\text{-}N^{+}(CH_3)_3X^{-}$
Ionic Form (as shipped)	Cl^{-}
Shipping Weight, approx.	685 g/l (42 lb./ft.^{3})
Mesh Size (U.S. Std)	16-50
Moisture retention, Cl^{-} form	50-60%
Swelling, Cl^{-} to OH^{-}, %	<15%
Total Capacity in Cl^{-} form	>1.15 meq/ml
pH Range, Stability	0–14

CHEMICAL AND THERMAL STABILITY

A351(Cl) resin is insoluble in dilute or moderately concentrated acids, alkalies, 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 it s mechanical strength, as well as generating small amounts of extractable breakdown products. Like all conventional Polystyrene Type I anion resins, it is thermally stable to 77 ^{o}C (170 ^{o}F) in the salt form. The hydroxide form tends to degrade in water temperatures appreciably higher than 35 ^{o}C (95 ^{o}F), thereby losing capacity, as the functional groups are gradually replaced by hydroxyl groups.