PUROLITE
ION EXCHANGE RESINS

Product Data Sheet

PUROLITE® NRW160

Nuclear Grade Cation

Nuclear Grade Macroporous Strong Acid Cation Excha

Purolite NRW160/4491 is a macroporous polystyrene sulphonate cation exchanger designed to be mechanically strong and capable of withstanding conditions of considerable stress (thermal and oxidative) such as those found in the treatment of radio-active circuits and waste water. The high capacity and ion selectivity of Purolite NRW160/4491 especially for Caesium 137 makes this the resin of choice where such radio-active isotopes need to be concentrated before disposal. This resin also has extremely fast kinetics when compared with other macroporous strong acid cation resins.

Basic Features:

Application	Removal of Radioactive Isotopes - Selective for Caesium 137
Polymer Structure	Macroporous polystyrene crosslinked with divinylbenzene
Appearance	Spherical beads
Functional Group	Sulphonic acid
Ionic form as shipped	H^+

Typical Physical and Chemical Characteristics:

Total Capacity (min.)	H^+	2.10 eq/l
Total Capacity (min.)	H^+	45.90 kGr/ft^3
Moisture Retention	H^+	43-48 %
Mean Size Typical		0.65-0-90 mm
Uniformity Coefficient (max.)		1.70
Reversible Swelling (max.)	$Na^+ \rightarrow H^+$	4 %
Specific Gravity		1.21 g/ml
Shipping Weight (approx.)		760-800 g/l
Shipping Weight (approx.)		47.5-50 lbs/ft^3
Temp Limit	H^+	120 °C
Temp Limit	H^+	250 °F
pH Limits		0-14
Ionic Form (min.)		99.90 %
Impurities Sodium (max.)		40 ppm
Impurities Iron (max.)		50 ppm
Impurities Heavy Metals(max.)		30 ppm

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Impurities Heavy Metals	40 ppm

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