



ProSelect HexChrome (P/N ER20011) is a granular gel weak base anion resin with unique epoxy polyamine functionality. It utilizes a secondary mechanism for chromate removal that causes chromium to precipitate inside the resin matrix when the feed pH is slightly acidic. ProSelect HexChrome is intended for all chromate removal applications. It is shipped in the acid chloride form.

FEATURES

- Complies with US FDA regulations (paragraph 21 CFR173.25) for potable water applications *
- High capacity media designed for one-time use
- Large granules provide good physical strength and minimal fines provide low pressure loss
- Removes chromium from water using weak base anion exchange resin at near-neutral pH.
- Certified to NSF/ANSI Standard 61

* For potable water applications, the resin must be properly pre-treated, usually by multiple exhaustion and regeneration cycles, to insure compliance with extractable levels.

Physical Properties

Polymer Structure	Epoxy polyamine
Polymer Type	Gel
Functional Group	Mixed amines
Physical Form	Granules
Ionic Form, as shipped	Acid chloride
Total Capacity	2.1 meq/mL min.
Water Retention	52 to 58%
Approximate Shipping Weight	40 lb/cu.ft.
Screen Size Distribution (U.S. Mesh)	12 to 40
Maximum Fines Content (<50 mesh)	1%
Uniformity Coefficient	2 approximate
Resin Color	Amber to yellow

Suggested Operating Conditions

Maximum Continuous Temperature	100°F (38°C)
Minimum Bed Depth	24 inches
Backwash Expansion (see next page)	25 to 50%
Max. Pressure Loss (see next page)	20 psi
Operating pH Range	4 to 7 SU
Service Flow Rate	1 to 4 gpm/cu.ft.

Note: Physical properties can be certified on a per lot basis, per request.

Chromate Removal

ProSelect HexChrome is a unique weak base anion exchanger with a secondary hybrid capture mechanism for chromate. Under neutral to slightly acidic conditions, chromate is first exchanged into the resin, then reduced to trivalent chrome which covalently bonds to the resin backbone. Throughput capacity is many times greater than that provided by the ion exchange groups alone, allowing very high loading and infrequent change-outs. Because the hexavalent chromate reduction step is both time and pH dependent, it is the rate controlling step. Operation at pH greater than 6 requires low flow rates, rest periods, or periodic soak steps at lower pH to allow the reduction step to catch up. Capacities in excess of 5 lbs of chrome (as Cr) per cubic foot of media are routinely achieved with ProSelect HexChrome when operated at optimum pH and flow conditions. ProSelect HexChrome is not affected by common ions such as nitrate, sulfate, or chloride but can be damaged or fouled by high levels of suspended solids, iron, manganese, chlorine, etc.

Prior to first use for potable water, the resin should be backwashed for a minimum of twenty (20) minutes, followed by ten (10) bed volumes of downflow rinse.

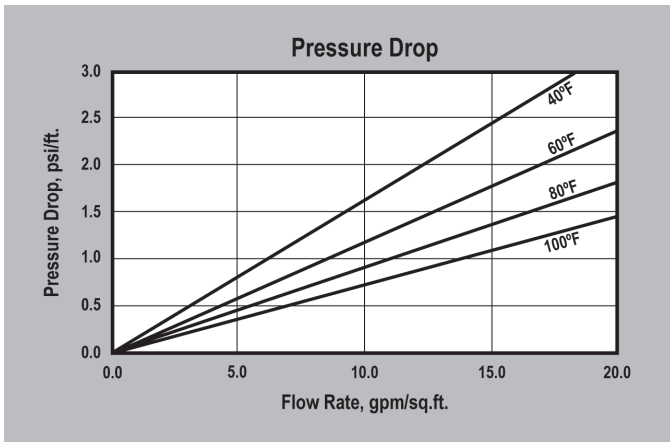
+ CAUTION: DO NOT MIX ION EXCHANGE RESINS WITH STRONG OXIDIZING AGENTS. Nitric acid and other strong oxidizing agents can cause explosive reactions when mixed with organic materials such as ion exchange resins.

Note: These suggestions and data are based on information we believe to be reliable. However, we do not make any guarantee or warranty. We caution against using these products in any unsafe manner or in violation of any patents. Further, we assume no liability for the consequences of any such actions.

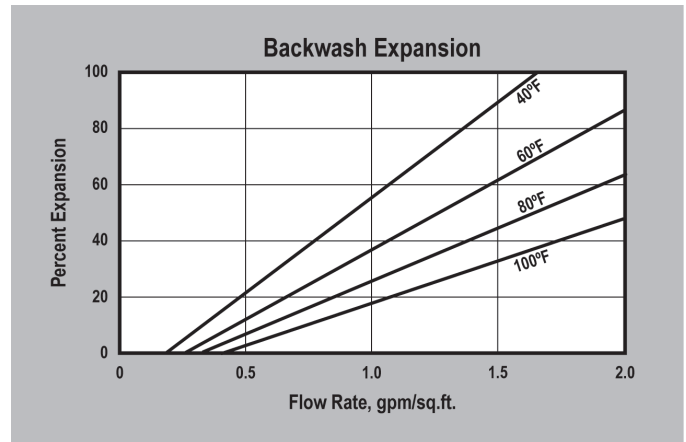
SPECIALTY RESIN



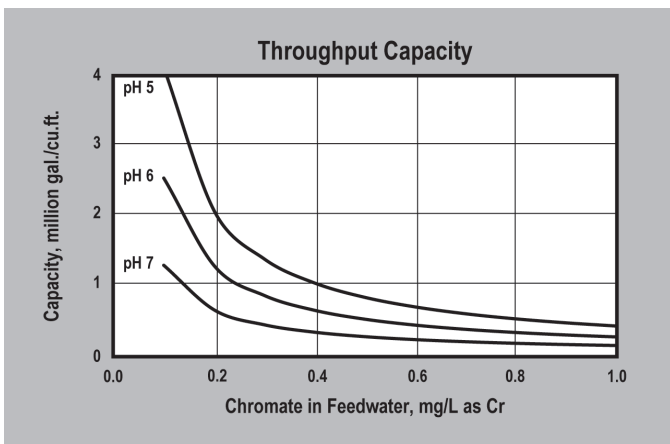
PROSELECT™ HEXCHROME



PRESSURE DROP — The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various temperatures.



BACKWASH — The graph above shows the expansion characteristics as a function of flow rate at various temperatures.



CAPACITY — The graph above is based on waters with TDS less than 500 ppm and is for chromate alone, exclusive of other anions. Capacity shown is for the working bed in a worker polisher configuration. No engineering downgrade has been applied.

Suggested System Configuration

