ROHM AND HAAS | Ion Exchange Resins

PRODUCT DATA SHEET

# AMBERLITE™ IRA402 Cl

## Industrial Grade Strong Base Anion Exchanger

AMBERLITE IRA402 Cl resin is a type 1 strongly basic, clear gel, anion exchange resin. It has a crosslinked polystyrene structure that is designed to give an optimum balance of capacity and regeneration efficiency in water treatment applications. It is widely used in co-flow regenerated systems and can also be used in conventional counterflow systems such as those using air or water holddown.

In demineralisation applications AMBERLITE IRA402 Cl resin can remove both strong and weak acids including silica. These characteristics make AMBERLITE IRA402 Cl an excellent general purpose anion exchange resin for a wide variety of water treatment applications.

## PROPERTIES

| | |
|---|---|
| Physical form | Pale yellow translucent spherical beads |
| Matrix | Styrene divinylbenzene copolymer |
| Functional group | Trimethyl ammonium |
| Ionic form as shipped | Chloride |
| Total exchange capacity [1] | ≥ 1.20 eq/L ($Cl^-$ form) |
| Moisture holding capacity [1] | 49 to 60 % ($Cl^-$ form) |
| Shipping weight | 670 g/L |
| Particle size | |
| Uniformity coefficient [1] | ≤ 1.6 |
| Harmonic mean size [1] | 0.600 to 0.750 mm |
| < 0.300 mm [1] | 1.0 % max |
| Reversible swelling | $Cl^- \rightarrow OH^-$ ≤ 30 % |

[1] *Contractual value*
*Test methods are available on request.*

## SUGGESTED OPERATING CONDITIONS

| | |
|---|---|
| Maximum operating temperature | 60°C |
| Minimum bed depth | 700 mm |
| Service flow rate | 8 to 40 BV*/h |
| Regeneration | |
| Regenerant | NaOH |
| Level | 60 to 150 g/L |
| Concentration | 2 to 4 % |
| Minimum contact time | 30 minutes |
| Slow rinse | 2 BV at regeneration flow rate |
| Fast rinse | 4 to 8 BV at service flow rate |

** 1 BV (Bed Volume) = 1 $m^3$ solution per $m^3$ resin*

## LIMITS OF USE

AMBERLITE IRA402 Cl resin is suitable for industrial uses. For all other specific applications such as pharmaceutical, food processing or potable water applications, it is recommended that all potential users seek advice from Rohm and Haas in order to determine the best resin choice and optimum operating conditions.

## HYDRAULIC CHARACTERISTICS

Figure 1 shows the bed expansion of AMBERLITE IRA402 Cl resin as a function of backwash flow rate and water temperature. Figure 2 shows the pressure drop data for AMBERLITE IRA402 Cl resin, as a function of service flow rate and water temperature. Pressure drop data are valid at the start of the service run with clear water and a correctly classified bed.

Fig. 1 : Bed Expansion

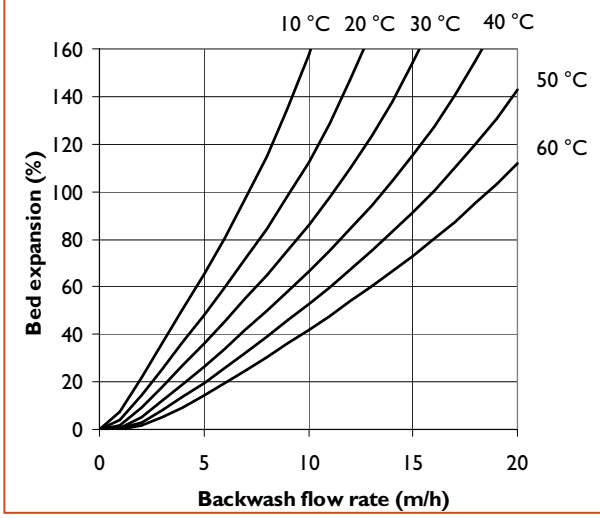
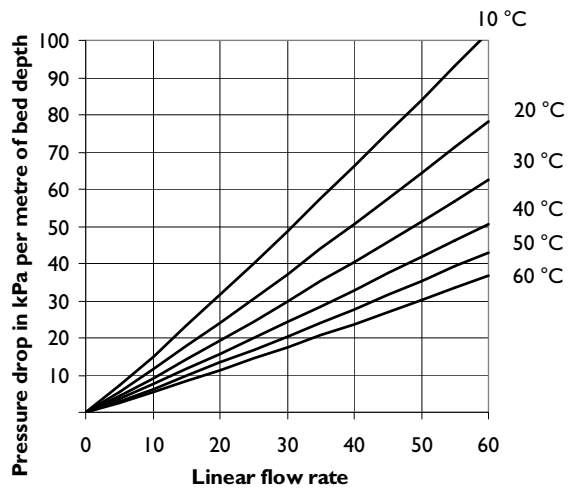



Fig. 2 : Pressure Drop




All our products are produced in ISO 9001 certified manufacturing facilities.

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