

**CSA
121**

Strong Acid Cation Exchange Resin

DOSHION CSA 121 has a strongly acidic unfunctional cross linked polystyrene structure containing sulphonic acid groups. It is a high capacity gel type resin with excellent physical and chemical properties specially developed for industrial and domestic water softening applications having high hardness of calcium and magnesium salts. Primarily the resin is supplied in Sodium form and however can also be used in demineralisation and other special applications in H⁺ form.

DOSHION CSA 121 is highly resistant to attrition and osmotic shocks & offers minimum pressure drop across the resin bed under a wide variety of operating conditions.

| PROPERTIES | |
|---|------------------------------|
| Matrix | Cross Linked Polystyrene Gel |
| Functional Group | SO ₃ (Sulphonic) |
| Ionic Form | Na ⁺ -Sodium |
| Physical Form | Hard Moist Beads |
| Particle Size (mm) | 0.30 - 1.20 |
| Moisture Content % | 47 - 53 % |
| Total Exchange Capacity (eq/L) (min.) | 1.8 Na ⁺ form |
| Bulk Density or Shipping Weight (gm/L) | 800 - 840 |
| Operating pH Range | 0 - 14 |
| Solubility in Common Solvents | Insoluble |
| Volume change % (max) : Na ⁺ to H ⁺ | 10 |

| SUGGESTED OPERATING CONDITIONS | | |
|--------------------------------|----------------------------------|---------------|
| Operating Temperature (max) | °C | 120 |
| Minimum Bed Depth | cm | 75 |
| Regenerant Concentration | % | 10-16 (NaCl) |
| Regenerant Flow Rate | *BV/hr | 2 - 4 |
| Regenerant Contact Time | Minutes | 30 |
| Regeneration Level 100% | Kg M ³ of Resin | 60-160 (NaCl) |
| Displacement Rinse Rate | *BV/hr | 2 - 4 |
| Displacement Rinse Volume | #BV | 1 - 2 |
| Fast Rinse Rate | *BV/hr | 10 - 40 |
| Fast Rinse Volume | #BV | 4 - 10 |
| Service Flow Rate | *BV/hr | 10 - 40 |

* Bed Volumes/Hour # Bed Volumes

