



AMBERLITE® IRN150

Industrial Nuclear Grade Mixed Bed Resin

PRODUCT DATA SHEET

AMBERLITE IRN150 is a mixture of uniform particle size gelular polystyrene cation and anion exchange resins. AMBERLITE IRN150 resin as supplied contains a stoichiometric equivalent of the strongly acidic cation and the

strongly basic anion exchange resins. It is supplied in the fully regenerated H⁺/OH⁻ form. The resin combines the properties of high capacity and excellent resistance to bead fracture from attrition and osmotic shock.

PHYSICAL CHARACTERISTICS

Physical form _____	Uniform particle size spherical beads
Shipping weight _____	690 g/L
Harmonic mean size _____	Cation : 650 ± 50 µm - Anion : 630 ± 50 µm
Uniformity coefficient _____	≤ 1.2 (for each component)
Particle size ^[1] _____	< 0.300 mm : 0.2 % max
	> 1.180 mm : 2.0 % max
Whole beads _____	95 % minimum
Breaking weight (average) _____	≥ 350 g/bead
> 200 g/bead _____	≥ 95 %

CHEMICAL CHARACTERISTICS

	Cation resin	Anion resin
Matrix _____	Polystyrene DVB gel	Polystyrene DVB gel
Functional groups _____	Sulphonic acid	Trimethylammonium
Ionic form as shipped _____	H ⁺	OH ⁻
Total exchange capacity ^[2] _____	≥ 1.9 eq/L (H ⁺ form)	≥ 1.2 eq/L (OH ⁻ form)
Strong base capacity ^[1] _____	-	≥ 90 %
Moisture holding capacity ^[1] _____	49 -55 % (H ⁺ form)	54 - 60 % (OH ⁻ form)
Ionic conversion ^[1] _____	99 % min H ⁺	95 % min OH ⁻
CO ₃ ⁼ _____	-	5 % max
Cl ⁻ _____	-	0.1 % max
SO ₄ ⁼ _____	-	0.1 % max

^[1] Contractual value

^[2] Average value calculated from statistical quality control
Test methods and SQC charts are available on request.

