

MB49VC

Self indicating-Ready to use mixed-bed ion exchanger
(FOR DEMINERALISATION OF WATER FOR GENERAL PURPOSE USE)

Technical Data

PRODUCT DESCRIPTION

Purolite MB49VC is a resin mixture for direct purification of water of the highest quality. This resin mixture changes colour from emerald green to deep blue on exhaustion. It is suitable for use in regenerable or non-regenerable cartridges or in large ion exchange units. Passage of water at recommended flow rates through the resin, as supplied, can achieve almost complete reduction of total dissolved solids. The residuals produce average conductivity values of about 0.1 $\mu\text{S}/\text{cm}$ for a major portion of the service run. However it will be necessary to cease water production prior to complete colour change if highest quality water is essential. Generally water with a conductivity between 5-50 $\mu\text{S}/\text{cm}$ is obtained when the blue colour reaches close to the bottom of the bed. It should be noted that at the end of the run, water of low pH can be produced.

Equivalent volumes of pure water may be obtained after regeneration but only if sufficient regenerant quantities are employed to achieve the percentage conversion levels close to those of the "as supplied" resin. Generally acceptable capacity and quality is obtained economically at lower regeneration levels. Self indication may only be possible for several cycles.

Note: **Purolite MB49VC** is delivered in sealed, airtight packaging. Exposure to the atmosphere even for less than one hour can produce a noticeable difference in treated water quality when the purest water quality obtainable is required. Exposure for long periods can result in carbonation of the anion resin which results in substantial loss of performance. Hence once packaging is opened, resin should be used directly, and any unused resin returned to containers and sealed.

Applications

Pure deionised water of the quality obtainable from **Purolite MB49VC** has uses in many applications and industries. A few of these are included in the following list: in chemical and photographic laboratories, for topping up car batteries, for stain prevention in glazing industry, in the cleaning of glassware in catering and licensed trade, and in hospitals.

Water may be passed either intermittently or continuously at flow rates up to 40 bed volumes per hour depending upon the total dissolved solids of the water to be treated. Where use is intermittent the provision of a recycle system will ensure that the treated water quality is the best possible. Alternatively after a period of shutdown the first water obtained when starting up can be discarded until the quality is satisfactory.

Many alternative ready to use resin mixtures are available from the Purolite range. They include other self-indicating resins, mixtures especially designed for operation at higher than average flow rates, and mixtures offering high capacity where purity is not critical, or where the feed water quality makes an alternative more suitable.

Typical Physical, Chemical & Operating Characteristics

Polymer Matrix Structure	Styrene-Divinylbenzene
Appearance	A mixture of Emerald Green and Cream Coloured Spheres
Functional Groups	Sulphonic Acid and Quaternary Ammonium
Ionic Form (as shipped)	H ⁺ , OH ⁻
Shipping Weight g/l [lb/ft ³].....	715 [44.7]
Screen Size Range (British Standard Screen)	14-52 mesh wet
Particle Size Range (microns)	+1200 < 5%, -300 < 1%
Moisture Retention: as shipped	65% max
Total Exchange Capacity	
Cation component (Na ⁺ form)	1.9 eq/l min
Anion component (Cl ⁻ form)	1.2 eq/l min
Percentage by volume	
Cation component	40
Anion component	60
Maximum Operating	
Non-regenerative bed	Temperature
Regenerative bed	100° C (212° F)
pH range	60° C (140° C)
	0-14

For further details please contact your local national office.