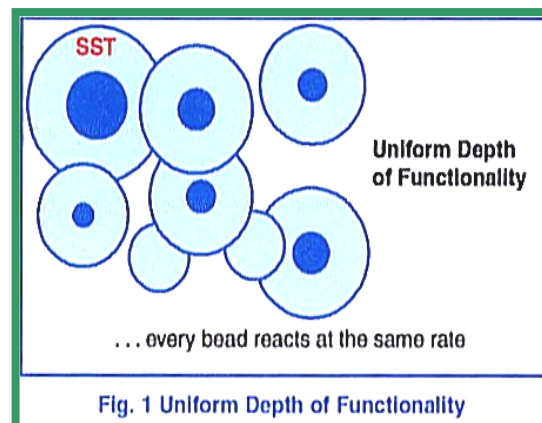


Resin SST - 60

Shallow Shell Technology

The Purolite™ SST family of high efficiency softening resins is based on shallow shell technology. Simply stated, the shorter the diffusion path, the more rapid the softening exchange occurs. This is particularly important during regeneration. Reducing the depth of penetration required to cleanse the resin allows for a more complete regeneration and provides a higher, more efficient utilization of the regenerant. The result is a group of resins with unsurpassed salt efficiency, lower leakage, and reduced rinse water requirements.

SST-60 is a high capacity polystyrene cation exchange resin. The resin core is a solid polystyrene matrix. The outer layer has active sulfone sites that cause ion exchange softening.



The best application of SST-60 is when low hardness leakage is required or desirable. One obvious application is boiler feed water.

The difference between the hardness leakage of SST-60 and conventional resins can significantly reduce the cost of boiler water treatment chemicals. The salt for regeneration used to achieve a specified hardness leakage is much less for SST-60 than for WK100. As an example, the leakage for SST-60 at 8 pounds of salt per cubic foot ($\#/ft^3$) is nominally 0.4 parts per million (ppm). For the WK100 resin a regenerant level of 15 pounds per cubic foot ($\#/ft^3$) is required to achieve the same leakage.

In summary, SST-60 has the same capacity as WK100 or other conventional resins. It has much lower harness leakage and requires less rinse water after brining. (Rinse water volume for SST-60 is approximately half of the requirement for conventional resin.)

Purolite SST resins exhibit superior toughness and durability of osmotic shock versus conventional resins. This is key in industrial applications and portable exchange units where the resin sees a lot of physical handling. These resins save water. The shallow shell technology of Purolite SST products regenerate with about 50% less water and rinse very quickly to quality.

Potable Water Use: SST-60 is an industrial resin not specifically designed for potable applications. Water King's standard resin WK100 has been specially cleaned to eliminate color throw and taste caused by partially polymerized polystyrene residuals retained in the resin matrix. C-100E meets Food and Drug Administration Code of Federal Regulations section 21, paragraph 173.25 for food grade and human consumption. SST-60 does not meet these standards but is completely non-toxic. The SST-60 process does not use solvents and the resin (Polystyrene) is completely non-toxic. If SST-60 is to be used for potable water, a field conditioning process is recommended by

Leakage SST-60 -vs- WK100		
NaCl ($\#/ft^3$)	SST-60 Leakage (ppm)	WK100 Leakage (ppm)
5	0.7	1.2
10	0.3	0.6
15	0.1	0.4

CAT281.2

Purolite™ to completely rinse manufacturing residuals from the resin. This should eliminate aesthetic problems and allow use of SST-60 water for human consumption.

SST-60 ADVANTAGES

1. SIGNIFICANTLY REDUCED LEAKAGE
2. 50% REDUCTION IN RINSE WATER
3. SUPERIOR DURABILITY
4. SAME CAPACITY
5. SST-60 CAN BE USED FOR POTABLE WATER AFTER FIELD CONDITIONING.
6. SST-60 CAN BE USED WITH NO MODIFICATION TO EXISTING SOFTENER.

SST-60 is available as an option for all Water King Systems. Since the resin capacity is the same, the unit sizing is the same. Field adjustment of brine levels and rinse timing allow optimization of the systems to fully realize the advantages of SST-60.

RESIN REPLACEMENT

Since no changes in equipment are required, SST-60 can be used as a direct replacement for conventional resins. The unit capacity for softening will remain unchanged. Leakages will be substantially reduced and rinse water volume will be decreased.

SST-60 is unique and available only through Purolite / Water King.

PART NO. 480000-3 SST – 60 CATION EXCHANGE RESIN 1 FT³