

## SUPRA ASM-125

SELECTIVE EXCHANGER

**SILICA & ANTIMONY SELECTIVE  
HYBRID STRONG BASE ANION  
CHLORIDE FORM**

ResinTech ASM-125 is a chloride form antimony selective hybrid gel type 1 strong base anion resin. Hydrated iron oxide is monoatomically dispersed throughout the polymer, giving the product hybrid properties and exceptional capacity for radionuclides such as Antimony 125 and for neutral silica, while retaining its strong base capacity for anionic contaminants. ASM-125 is intended for the removal of antimony125 and other radionuclides from radwaste.

### APPLICATIONS

- Antimony Removal
- Silica Removal

### TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS

<b>Polymer Matrix</b>	Styrenic Gel
<b>Ionic Form</b>	Chloride
<b>Functional Group</b>	Iron oxide Hybrid / Triethylamine
<b>Physical Form</b>	Spherical Beads
<b>Particle Size</b>	16 to 50 US Mesh (297 - 1190µm)
<b>% &lt; 50 mesh (300µm)</b>	< 1%
<b>Minimum Sphericity</b>	93%
<b>Uniformity Coefficient</b>	1.6
<b>Temp Limit</b>	250°F (121°C)
<b>Capacity (meq/mL)</b>	1.4
<b>Moisture Retention</b>	35% to 50%
<b>Shipping Weight</b>	48 - 50 lbs/ft <sup>3</sup> (769 - 801 g/L)
<b>Color</b>	Black

### PACKAGING OPTIONS

- 500 ml samples
- 1 ft<sup>3</sup> bags
- 1 ft<sup>3</sup> boxes
- 1 ft<sup>3</sup> drums
- 7 ft<sup>3</sup> drums
- 42 ft<sup>3</sup> supersacks

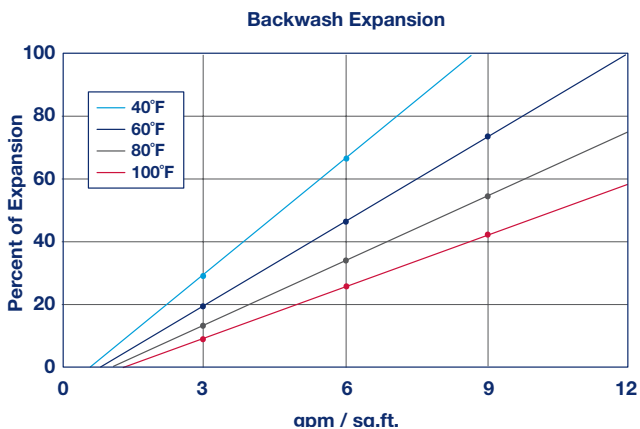
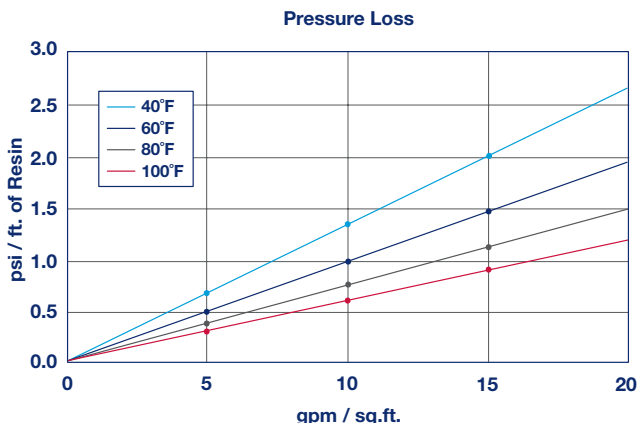
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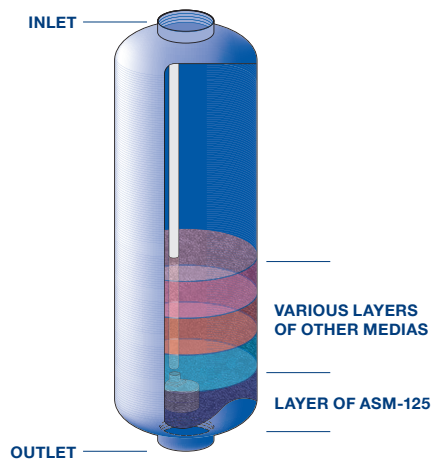
### SILICA REMOVAL

Chloride form ResinTech ASM-125 can be used at moderate pH to remove silica from neutral water without reducing TDS. At a flow rate of 0.5 BV/min, treating water with a pH of 7.5, a removal efficiency of fifty percent is possible for several hundred bed volumes of throughput. Silica removal continues at reduced efficiency for many thousands of additional bed volumes. Even though silica removal is not complete, the lowering of silica helps maintain purity in spent fuel pools and other radwaste systems.

### ANTIMONY REMOVAL

Trace levels of antimony are adsorbed by the iron hybrid material inside ResinTech ASM-125, which in all other respects remains a strong base anion resin. The resin is typically used as the bottom layer of a multilayer exchange tank. Antimony reduction is typically around 90%. In recycle applications where the source of antimony has been removed, remaining antimony can be reduced below the limit of detection.

### TYPICAL USE IS LAYERED UNDERNEATH OTHER MEDIAS



### SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature	
Chloride form	170°F
Minimum bed depth	6 to 12 inches
Maximum pressure loss	25 psi
Operating pH range	4 to 10 SU
Service flow rate	1 to 10 gpm/cu.ft.

Note: These guidelines describe average low risk operating conditions. They are not intended to be absolute minimums or maximums. For operation outside these guidelines, contact ResinTech Technical Support

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