

# PRODUCT SPECIFICATION SHEET

## SUPRA RSM-25

SELECTIVE EXCHANGER

**RADIUM SELECTIVE  
POLYPOLYSTYRENIC GEL  
SODIUM FORM**

ResinTech RSM-25 is a sodium form macroporous strong acid cation resin. It is WQA Gold Seal Certified for use with potable water. Its high crosslinking results in very high selectivity for radium on a one-time use basis. It does not contain barium, is pH agnostic, and does not require a minimum sulfate concentration. RSM-25 is intended for radium removal from otherwise potable waters that contain modest concentrations of hardness ions such as calcium.

### APPLICATIONS

- Radium Removal
- Loading Formula (Radiation)

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS	
<b>Polymer Matrix</b>	Styrenic Macroporous
<b>Ionic Form</b>	Sodium
<b>Functional Group</b>	Sulfonic Acid
<b>Physical Form</b>	Spherical Beads
<b>Particle Size</b>	16 to 50 US Mesh (297 - 1190 $\mu$ m)
<b>% &lt; 50 mesh (300<math>\mu</math>m)</b>	< 1%
<b>Minimum Sphericity</b>	95%
<b>Uniformity Coefficient</b>	1.6
<b>Reversible Swelling</b>	Na to Ca 3% to 5%
<b>Temp Limit</b>	250°F (121°C)
<b>Capacity (meq/mL)</b>	1.8
<b>Moisture Retention</b>	45% to 55%
<b>Shipping Weight</b>	48 - 50 lbs/ft <sup>3</sup> (769 - 801 g/L)
<b>Color</b>	Tan to Brown
<b>Regenerability</b>	Yes

### CERTIFICATIONS

WQA Gold Seal



C US

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### 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

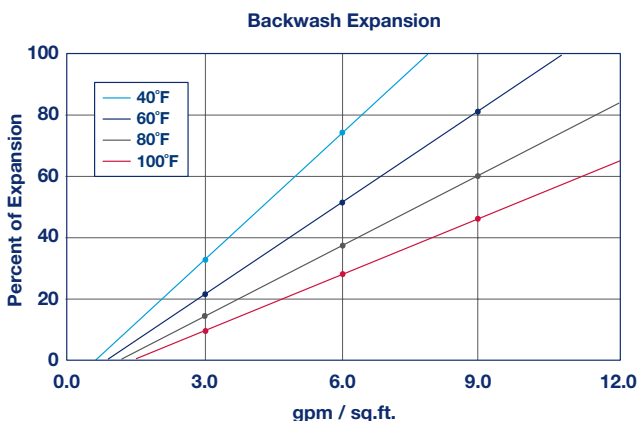
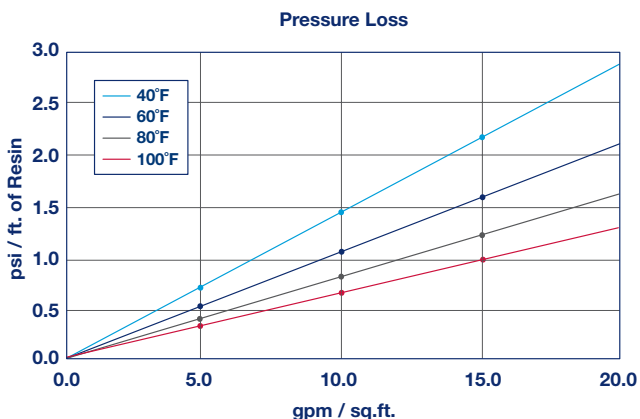


# SUPRA

## RSM-25

HYBRID

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SODIUM FORM**



### RADIUM REMOVAL SINGLE USE

ResinTech RSM-25 is supplied in the sodium form. During the initial portion of the service cycle the resin functions as a softener because it removes hardness along with radium. RSM-25 will continue to remove radium in this fashion for many times the volume of its softening capacity. For this reason, RSM-25 is widely used in single cycle applications for removing radium from potable waters with low to medium hardness. RSM-25 is not affected by pH nor is capacity reduced by the presence of sulfate or other common ions. RSM-25 does not contain barium.

### RADIUM REMOVAL MULTIPLE CYCLE USE

ResinTech RSM-25 may be regenerated and reused over many hundreds of exhaustion and regeneration cycles. It is ordinarily regenerated with sodium chloride but other regenerants such as potassium chloride can be used. Because it is difficult to remove all the radium during regeneration, the throughput in regenerable applications is limited to softening capacity.

### SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature	
Sodium form	180°F
Minimum bed depth	24 inches
Backwash expansion	25 to 50 percent
Maximum pressure loss	25 psi
Operating pH range	0 to 14 SU
Regenerant Concentration	
Salt cycle	10 to 15 percent NaCl
Regenerant level	15 to 20 lbs./cu.ft.
Regenerant flow rate	0.5 to 1.5 gpm/cu.ft.
Regenerant contact time	>20 minutes
Displacement flow rate	Same as dilution water
Displacement volume	10 to 15 gallons/cu.ft.
Rinse flow rate	Same as service flow
Rinse volume	35 to 60 gallons/cu.ft.
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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