

MAGNA MBD-25-MP

MIXED BED

MACROPOROUS MIXED BED
H / OH FORM

ResinTech MBD-25-MP is a 2:5 ratio of SACMP-H (a tan colored hydrogen form macroporous cation resin) and SBMP1-OH (a hydroxide form type 1 macroporous strong base anion resin). The highly cross-linked components provide the highest possible thermal, physical, and chemical stability. MBD-25-MP is intended for use in polishing mixed beds with operating conditions that punish other mixed bed resins.

APPLICATIONS

- Radwaste Removal
- High Temperature Applications

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS

Polymer Matrix	Styrenic Macroporous
Ionic Form	Hydrogen & Hydroxide
Functional Group	Sulfonic Acid / Trimethylamine
Physical Form	Spherical Beads
Particle Size	16 to 50 US Mesh (297 - 1190 µm)
% < 50 mesh (300µm)	< 1%
Reversible Swelling	H/OH to Na/Cl -15% to -17%
Temp Limit	250°F (121°C)
Capacity (meq/mL)	>.55
Moisture Retention	51% to 68%
Shipping Weight	41 - 43 lbs/ft ³ (657 - 689 g/L)
Color	Tan / Brown & Yellow / Brown
Regenerability	Yes

PACKAGING OPTIONS

- 1 ft³ bags
- 1 ft³ boxes
- 1 ft³ drums
- 7 ft³ drums
- 42 ft³ supersacks

Revision 1.0
ResinTech, Inc.®

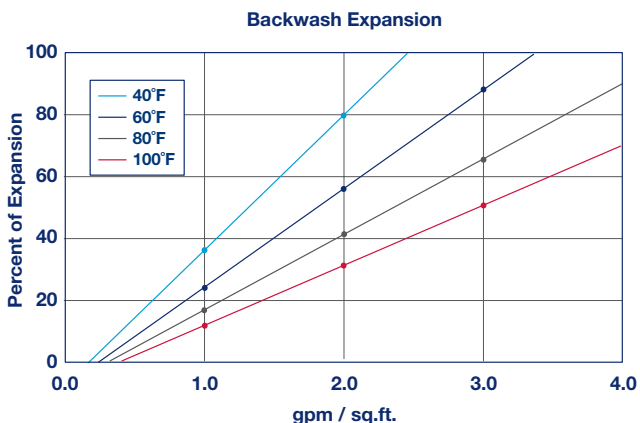
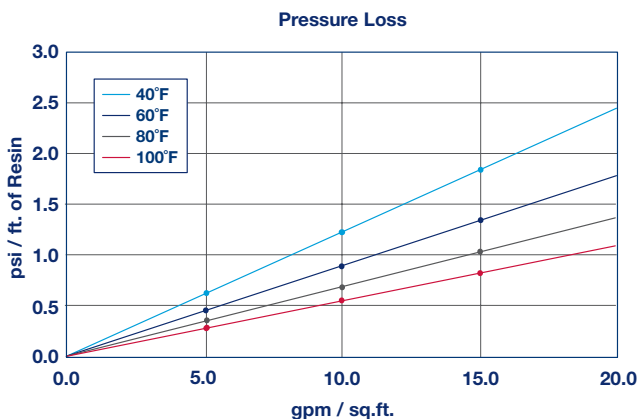


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RADWASTE

ResinTech MBD-25 uses macroporous high crosslinked resins (SACMP-H and SBMP1-OH) for both the cation and the anion components. The high crosslinking provides higher selectivity, more complete removal of radioactive and other contaminants, and also provides greater resistance to the effects of radiation. MBD-25 utilizes a unique anion mixture (approximately 70% anion resin) to provide the longest possible throughput prior to carbon dioxide bleed through.

THROUGHPUT CAPACITY (Gal/cu. ft.)

TDS (ppm as CaO ₂) Conductivity (uS/cm)	No CO ₂ or SiO ₂	5 ppm CO ₂ or SiO ₂	10 ppm CO ₂ or SiO ₂
2/5	130,473	37,278	21,746
5/12.5	52,189	26,095	17,396
10/25	26,095	17,396	13,047
20/50	13,047	10,438	8,698
50/125	5,219	4,744	4,349
100/250	2,609	2,485	2,372
200/500	1,305	1,273	1,243
500/1250	522	517	512
1,000/2500	261	260	258

Mixed Bed throughput capacity is based on the stated inlet conductivity of neutral pH waters and run to a 1 uS/cm endpoint. TDS is based on NaCl (2.5uS/cm/ppm as CaCO₃). Different salts may have different contributions to TDS. Capacity is based on the anion component and is for virgin resin. Following the initial exhaustion and regeneration subsequent cycles will likely be shorter, depending on how skillfully the resins are separated, regenerated, and remixed.

HIGH TEMPERATURE USE

ResinTech MBD-25 can be used at temperatures up to approximately 180°F and will still provide reasonable life.

SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature	140°F
Maximum Intermittent temperature	180°F
Minimum bed depth	24 inches
Backwash expansion	50 to 100 percent
Maximum pressure loss	25 psi
Operating pH range	2 to 12 SU
Service flow rate	
Working	1 to 5 gpm per cu. ft.
Polishing	3 to 15 gpm per 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