

MAGNA MBD-NANO

MIXED BED

**ELECTRONICS GRADE
ULTRA-HIGH PURITY MIXED BED
H / OH FORM**

ResinTech MBD-NANO is a 2:3 volumetric mixture of CG8-H-BL (a dark-colored hydrogen form cation resin) and SBG1P-OH (a hydroxide form type 1 porous strong base anion resin). The NANO grade means it has been functionally tested to produce > 18 megohm resistivity and under 2 ppb of TOC. MBD-NANO is intended for use in E-1.1 water applications requiring TOC of no more than 2 ppb and metals certification.

APPLICATIONS

- Cartridge Applications
- Portable Exchange Deionization (PEDI)
- High Temperature Applications
- In Place Regeneration

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS

Polymer Matrix	Styrenic Gel
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	140°F (60°C)
Capacity (meq/mL)	0.55
Moisture Retention	53% to 62%
Shipping Weight	42 - 44 lbs/ft ³ (673 - 705 g/L)
Color	Brown / Black & Amber
Regenerability	Yes

PACKAGING OPTIONS

- 500 ml samples
- 1 ft³ drums
- 1 ft³ bags
- 7 ft³ drums
- 1 ft³ boxes
- 42 ft³ supersacks

Revision 1.0
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SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature	140°F
Maximum intermittent temperature	180°F
Minimum bed depth	24 inches
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

MAXIMUM IMPURITIES

MBD-NANO uses proprietary production techniques to ensure the lowest levels of inorganic cations and anions on the resin.

Metallic Impurities (moist basis)

Sodium (Na) ppm	< 40
Iron (Fe) ppm	< 50
Copper (Cu) ppm	< 10
Aluminum (Al) ppm	< 30
Calcium (Ca) ppm	< 30
Magnesium (Mg) ppm	< 30
Heavy metals (Pb) ppm	< 10
Anionic Impurities	
Equivalent percent Chloride (% Cl)	< 0.2
Equivalent percent Sulfate (% SO ₄)	< 0.2
Equivalent percent Hydroxide (% OH)	> 95

Leachable TOC (total organic carbon)

BV's rinse (at 0.5 BV/min)	(Max ppb TOC)
25	25
50	5
100	1

Lot certification is available and is provided when specified in purchase agreement.