MBD-NANO

Grade: Nano

Mixed bed resin, ultra high-purity grade, hydrogen & hydroxide form

ResinTech MBD-NANO is a 2:3 volumetric mixture of a dark-colored hydrogen form cation resin and a hydroxide form type 1 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 the microelectronics, pharmaceutical, and power generation industry, where the highest resistivity and lowest levels of organic or inorganic impurities are required.

FEATURES & BENEFITS

- Highest Purity Performance
- Rapid Rinse To Quality
- Certified Performance Testing
- Cation And Anion Components Available Separately
- Special Packaging Available To Extend Shelf Life

APPLICATIONS

- Cartridge Applications
- Portable Exchange Deionization (PEDI)
- Demineralization / DI
- Low Metals Content
- Ultrapure Water Production (UPW)
- Low TOC

COMPONENT 1

Media & Volumetric %	60% SBG1P-OH
Media Category	Strong Base Anion
Polymer Type	Gel
Polymer Matrix	Styrene/DVB
Functional Group	Trimethylamine
Ionic Form	Hydroxide (OH^-)
Physical Form	Spherical Beads
Capacity	1.00
Moisture Retention (%)	52 to 60
Media Color	Yellow to Orange

COMPONENT 2

Media & Volumetric %	40% CG8-H-BL
Media Category	Strong Acid Cation
Polymer Type	Gel
Polymer Matrix	Styrene/DVB
Functional Group	Sulfonic Acid
Ionic Form	Hydrogen (H^+)
Physical Form	Spherical Beads
Capacity	1.80
Moisture Retention (%)	47 to 56
Media Color	Dark Brown to Black

PHYSICAL PROPERTIES

Particle Size	16-50 US mesh (297-1190µm)
< 50 mesh (300 µm) %	< 1
Reversible Swelling	12 to 17% ($Na^+/Cl^- \rightarrow H^+/OH^-$)
Shipping Weight	42 - 44 lbs/cu.ft. (673 - 705 g/L)

SUGGESTED OPERATING CONDITIONS

Maximum Temperature	140°F (60°C)
Minimum Bed Depth	24 in. (61.0 cm)
Maximum Pressure Loss	25 psi (172 kPa)
Operating pH Range	2.0 to 12.0
Flow Rate	
Working Service	1-5 gpm/cu.ft. (8-40 BV/h)
Polishing	3-15 gpm/cu.ft. (24-120 BV/h)

RESINTECH® INC.
INNOVATIONS IN ION EXCHANGE

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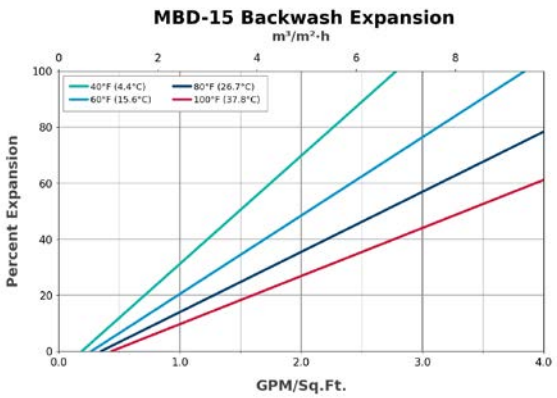
BACKWASH EXPANSION



The graph above shows the expansion characteristics of ResinTech MBD-NANO as a function of flow rate at various temperatures.

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 (% SO4)	< 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.

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MBD-NANO

CERTIFICATIONS

REACH Registered

Conforms to §21CFR173.25 of the USFDA Food Additives Regulations

PACKAGING

Standard

7 cu.ft. Drum | 42 cu.ft. Supersack

200L Drum | 1000L Supersack

Metric

1 cu.ft. Bag | 5 cu.ft. Drum

25L Bag | 140L Drum

Shipping Weight

42 - 44 lbs/cu.ft. (673 - 705 g/L)

MATERIAL SAFETY DATA SHEETS (MSDS)

Material Safety Data Sheets (MSDS) are available for all products on the ResinTech website. They contain important health and safety information that may be needed to protect your employees and customers from any known health and safety hazards associated with our products. We recommend that you secure and study the pertinent MSDS for our products and any other products being used.

These suggestions and data are based on information we believe to be reliable. They are offered in good faith. However we do not make any guarantee or warranty. We caution against using these products in an unsafe manner or in violation of any patents; further we assume no liability for the consequences of any such actions.

Safety Data Sheets (SDS) are available at resintech.com

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