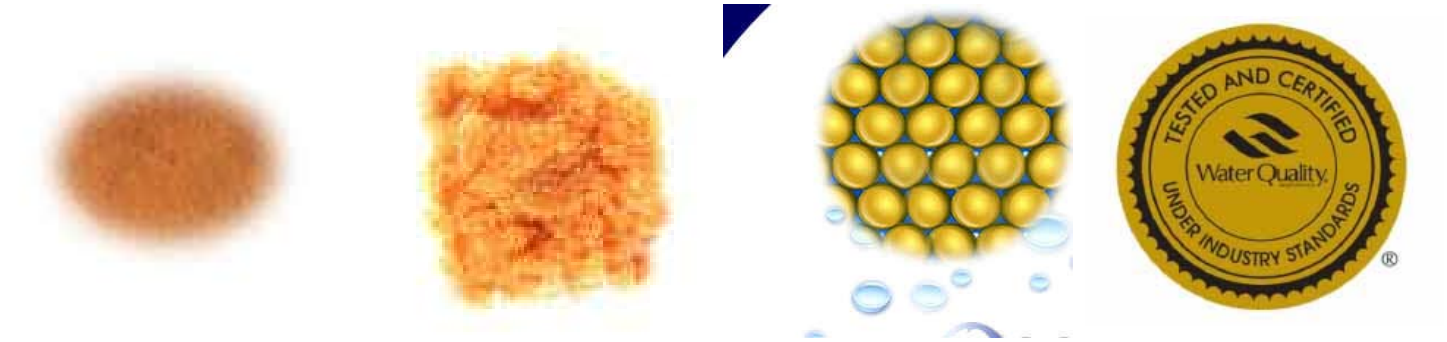
ION EXCHANGE RESINS AND FILTRATION MEDIA

ION EXCHANGE CATION RESINS - ION EXCHANGE ANION RESINS - MIXED BED ION EXCHANGE RESINS - ION EXCHANGE RESIN FOR ARSENIC REMOVAL - RESINS FOR WATER HARDNESS AND IRON REMOVAL - BIRM - - OTHER FILTRATION MEDIA - INERT MATERIAL

ION EXCHANGE CATION RESINS

High Pure IN222 Strongly Acidic Cation Ion Exchange Resin

IN222 strongly acidic cation exchange resin for softening



IN 222 NaF is a strongly acidic cation exchange resin containing sulphonic acid groups. It is specially designed for the treatment of foodstuffs, beverages, portable water and water used in the processing of food. Its specification is in compliance with the U.S.Food and Drug Administration Code of Federal Regulations section 21, paragraph 173.25, for use in the treatment of foods for human consumption. The resin is extremely robust and has excellent physical and chemical characteristics. It is supplied in moist condition in sodium form Characteristics Appearance:Golden yellow beads - Matrix:Styrene divinylbenzene copolymer Functional Group:Sulphonic acid Ionic form as supplied:Sodium Total exchange capacity:1.92 meq/ml, minimum Moisture holding capacity:47 - 53 % Shipping weight *:820 kg/m3, approximately Particle size range:0.3 to 1.2 mm > 1.2 mm:5.0%, maximum < 0.3 mm:1.0%, maximum

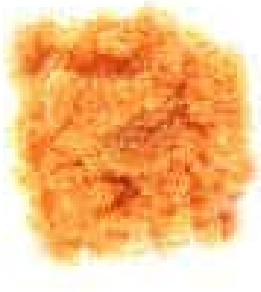
Uniformity coefficient:1.7, maximum Effective size:0.45 to 0.55mm Impurities Iron:100 mg/l maximum as Fe Heavy Metals:20 mg/l maximum as Pb Arsenic:3 mg/l maximum as As * Weight of resin, as supplied, occuping 1 m3 in a unit after backwashing and draining. Maximum operating temperature:140 0C Operating pH range:0 to 14 Resistance to reducing agents:Good Resistance to oxidizing agents:Generally good, chlorine should be absent Organic extractives:1 mg/l maximum in deionised water (As per USFDA 21 CFR 173.25):1 mg/l maximum in 15% v/v ethanol solutionConforms to D.M.174 06/04/2004 Suitable materials for the chat contact with water intended for human consumption- WQA Gold Seal certificate NSF/ANSI-61 (03/05/2012): Drinking Water System Components - Health Effects is within WQA's ANSI and SCC approved scope of accreditation Drinking Water

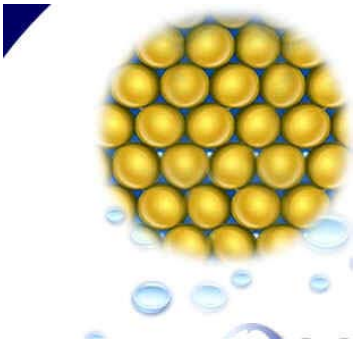
Item-Nr:	Description:
MCSCRHP02025NAFG	High Pure IN222 strong cation resin for water softening IN222 - 25 Kg bag Price per liter

Celtis Water Srl SP33 Km 0,230 Loc.Bettolino Nord, I-25030 Brandico (Bs) -Italy-Tel +39 030 2056433 Fax +39 030 2053465 e-mail: info@celtis-water.com

High Pure CE107 Strongly Acidic Cation Ion Exchange Resin

High Pure CE107 strongly acidic cation exchange resin for softening





High Pure CE 107 (001x7 FG) STRONG ACID CATION EXCHANGE RESIN,GEL STRUCTURE FOOD GRADE
1.0 Applicable Standard of Product: DL519-93
2.0 Indexes of Physical and Chemical Properties:
Designation: 001x7 Na FG Total Exchange Capacity meq/g 4.5 min Volume Exchange Capacity meq/ml1.90 min Water Retention %45-50 Bulk Density g/ml0.78-0.85 Special Density g/ml1.25-1.29 Particle Size mm(0.4-1.25 mm)≥95% Effect Size mm 0.40-0.60
Homogeneous Coefficient ≤1.6 max Roundness after Wearing %95 min
Appearancebrownish yellow to brown Odor ≤25

Ionic Form Supplied: Na 3.0 Reference Indexes for Operation:
3.01 PH Range:1-14 3.02 Max.Operating Temp (℃) :H+≤100℃ Na+≤120℃
3.03 Total Reversible Swelling %: (Na+→H+) 8-10
3.04 Working Exchange Capacity: 25℃≥ 1000meq/l (wet)
3.05 Concentration of Regenerate Solution %: NaCl: 8-10 ; HCl: 4-5
3.06 Consumption of Regenerate: NaCl (8-10%)Vol.:ResinVol.=1.5-2:1
HCl(4-5%) Vol.:ResinVol.= 2-3:1
3.07 Flow Rate of Regenerate Solution: 4-6(m/hr)
3.08 Regenerate Contact time : 30-60(minute)
3.09 Rinse Flow Rate: 10-20(m/hr) 3.10 Rinse Time (minute): 30 (approx.)
3.11 Operating Flow Rate: 10-45(m/hr)
4.0 Application: This product is mainly used for softening hard water and preparing pure and high purity water. In addition, it is used in separation and purification of trace elements as well as hydro-metallurgy and pharmaceutical industry. 5.0 International Equivalents:
Amberlite IR-120 (American) Lewatit-100 (German)
Purolite C-100E (England) Dowex HCR-SS (American)
6.0 Packing: Each PE lined with plastic bag, net weight: 25 L

Item-Nr:	Description:
HPJSC107025FG	High Pure CE107 Strongly Acidic Cation Ion Exchange Resin 25 Kg Bags (price per liter)

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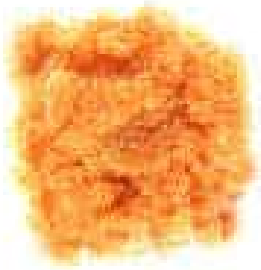
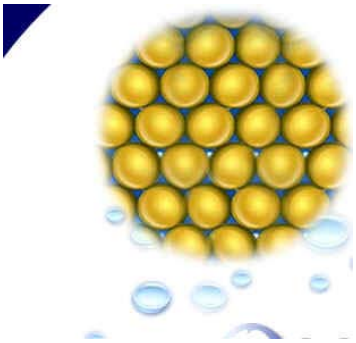
High Pure CE106 Strongly Acidic Cation Ion Exchange Resin

High Pure CE106 strongly acidic cation exchange resin for softening





HIGH PURE 001x6 NA FG - STRONG ACID CATION EXCHANGE RESIN GEL STRUCTURE FOOD GRADE
Applicable Standard of Product: DL519-93 Indexes of Physical and Chemical Properties: Characteristics Total Exchange Capacity meq/g 4.5 min Volume Exchange Capacity meq/ml 1.80 min
Water Retention % 50-56 Bulk Density g/ml 0.75-0.85
Special Density g/ml 1.26-1.30 Particle Size mm(0.315-1.25 mm)≥95% (<0.315mm) ≤1 Effect Size mm 0.40-0.70
Homogeneous Coefficient ≤1.6 max Roundness after Wearing %98 min
Appearancebrownish yellow to brown Color Throw APHA ≤20 pH7.0-9.5

Ionic Form Supplied : Na
3.0 Reference Indexes for Operation:
3.01 PH Range: 0-14
3.02 Max. Operating Temp (°C): H+≤100°C Na+≤120℃
3.03 Total Reversible Swelling %: (Na+→H+) 8-10
3.04 Working Exchange Capacity: 25°C≥ 1000meq/l (wet)
3.05 Concentration of Regenerate Solution %: NaCl: 8-10%- HCl: 4-5%
3.06 Consumption of Regenerate: NaCl(8-10%)Vol.:ResinVol.=1.5-2:1 HCl(4-5%) Vol.:ResinVol.= 2-3:1
3.07 Flow Rate of Regenerate Solution: 4-6(m/hr)
3.08 Regenerate Contact time: 30-60(minute)
3.09 Rinse Flow Rate: 10-20(m/hr)
3.10 Rinse Time (minute): 30 (approx.)
3.11 Operating Flow Rate: 10-45(m/hr)
4.0 Application:
This product is mainly used for softening hard water and preparing pure and high purity water. In addition, it is used in separation and purification of trace elements as well as hydro-metallurgy and pharmaceutical industry.
5.0 International Equivalents: Purolite C-100E (England)
6.0 Packing: Each PE lined with plastic bag, net weight: 20,0 Kg or 25,0 Liters: 25 L

Item-Nr:	Description:
HPJSC106025FG	High Pure CE106 Strongly Acidic Cation Ion Exchange Resin 25 Kg Bags (price per liter)

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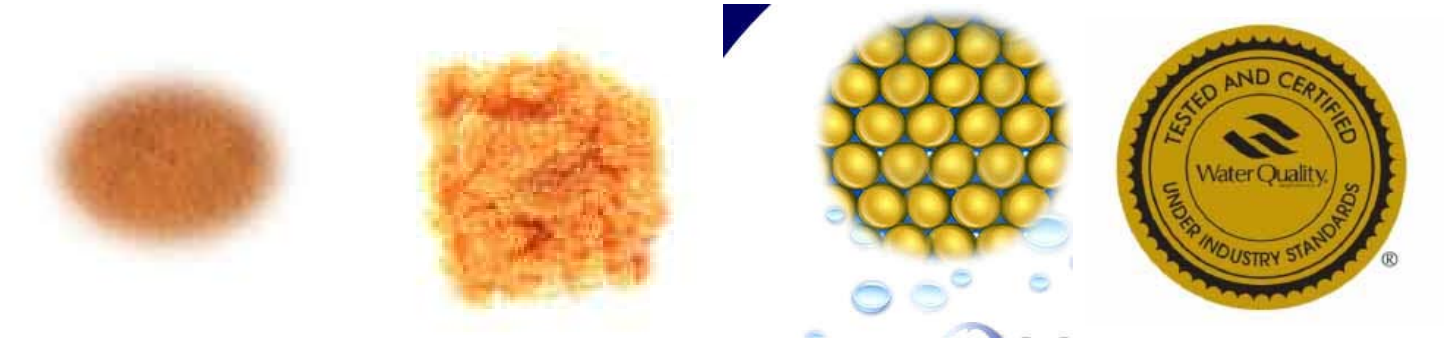
High Pure C42-108 PG NaF Ion Exchange Resin

High Pure C42-108 PG strongly acidic cation exchange resin for softening Premium Grade



High Pure C42-108 NaF PREMIUM GRADE STRONG ACID CATION EXCHANGE RESIN is a gel type cation exchange resin containing Sulphonic acid as functional group, having excellent resistant to oxidizing agents with high operating capacity.
High Pure C42-108 NaF PG is supplied in moist spherical beads, in Sodium form, with excellent physical and chemical characteristics. This product is used for industrial and domestic softening at relatively low regeneration cost.
High Pure C42-108 NaF PG is NSF grade resin, conditioned during manufacturing to achieve low VOCs as per
NSF standard. However it is recommended to follow preconditioning of the resin before use as shown below.
TYPICAL CHARACTERISTICS
Type Strong acid cation exchange resin
Appearance Amber color beads Functional group Sulphonic
Physical form Moist Spherical Beads Ionic form Sodium
Screen Size USS (wet) 16 to 50 Particle size (95% min) 0.3 to 1.2 mm
Total Exchange Capacity(minimum) 2.0 meq/ml
Moisture content 45 ± 3% Reversible swelling(%) Na+ to H+ : 7
pH range 0 to 14 Solubility Insoluble in all common solvents
Backwash settled density 810 to 850 g / l (52 - 54 lbs/cft) (Na+)
Temperature stability (max.) 140OC

SUGGESTED OPERATING PARAMETERS
Maximum operating temperature 140° in Na+ form
Resin bed depth (minimum) 600 mm Maximum service flow 120 m3/hr/m3 (15 gpm/ft3) Backwash expansion space 40 to 75%
Backwash flow rate for 40-70% expansion 9 to 25 m3/hr/m3 (4 to 10 gpm/ft2)
Regenerant NaCl
Regeneration level 60 - 160 g NaCl / l (3.7 to 1.0 lbs HCl/ft3)
Regenerant concentration 5.0 - 15.0% NaCl
Regenerant flow rate 2 to 16 m3/hr/m3 (0.25 to 2 gpm/ft3)
Regeneration time 30 to 60 min
Rinse flow rate : Slow At regeneration flow rate : Fast At service flow rate
Rinse volume 3 to 5 m3/ m3
TESTING: The sampling and testing of ion exchange resins is done as per standard testing procedures, namely
ASTMD-2187 and IS-7330, 1998. PACKING:
HDPE lines Bags 25 lit. HDPE Lined Bags 1 cft

Item-Nr:	Description:
HTPMC108025NAFG	High Pure C42-108 PG Premium Grade strong cationic ion exchange resin 25 Kg Bags (price per Liter)

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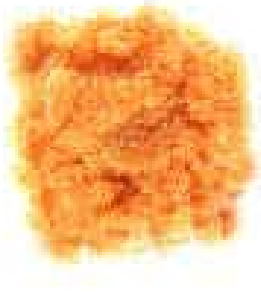
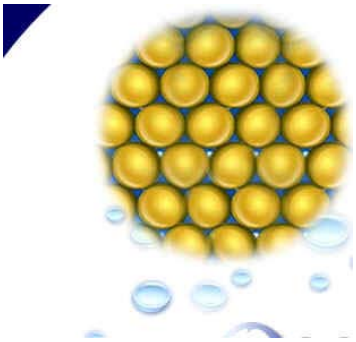
High Pure TC C-108 PG NaF Ion Exchange Resin

High Pure TC C-108 PG strongly acidic cation exchange resin for softening Premium Grade





High Pure TC C-108 NaF PREMIUM GRADE STRONG ACID CATION EXCHANGE RESIN is a gel type cation exchange resin containing Sulphonic acid as functional group, having excellent resistant to oxidizing agents with high operating capacity.
High Pure TC C-108 NaF PG is supplied in moist spherical beads, in Sodium form, with excellent physical and chemical characteristics. This product is used for industrial and domestic softening at relatively low regeneration cost.
High Pure TC C-108 NaF PG is NSF grade resin, conditioned during manufacturing to achieve low VOCs as per
NSF standard. However it is recommended to follow preconditioning of the resin before use as shown below.
TYPICAL CHARACTERISTICS
Type Strong acid cation exchange resin
Appearance Amber color beads Functional group Sulphonic
Physical form Moist Spherical Beads Ionic form Sodium
Screen Size USS (wet) 16 to 50 Particle size (95% min) 0.3 to 1.2 mm
Total Exchange Capacity(minimum) 2.0 meq/ml
Moisture content 45 ± 3% Reversible swelling(%) Na+ to H+ : 7
pH range 0 to 14 Solubility Insoluble in all common solvents
Backwash settled density 810 to 850 g / l (52 - 54 lbs/cft) (Na+)
Temperature stability (max.) 140OC

SUGGESTED OPERATING PARAMETERS
Maximum operating temperature 140° in Na+ form
Resin bed depth (minimum) 600 mm Maximum service flow 120 m3/hr/m3 (15 gpm/ft3) Backwash expansion space 40 to 75%
Backwash flow rate for 40-70% expansion 9 to 25 m3/hr/m3 (4 to 10 gpm/ft2)
Regenerant NaCl
Regeneration level 60 - 160 g NaCl / l (3.7 to 1.0 lbs HCl/ft3)
Regenerant concentration 5.0 - 15.0% NaCl
Regenerant flow rate 2 to 16 m3/hr/m3 (0.25 to 2 gpm/ft3)
Regeneration time 30 to 60 min
Rinse flow rate : Slow At regeneration flow rate : Fast At service flow rate
Rinse volume 3 to 5 m3/ m3
TESTING: The sampling and testing of ion exchange resins is done as per standard testing procedures, namely
ASTMD-2187 and IS-7330, 1998. PACKING:
HDPE lines Bags 25 lit. HDPE Lined Bags 1 cft

Item-Nr:	Description:
HPLLC10725NAFG	High Pure TC C-107 PG Premium Grade strong cationic ion exchange resin 25 Kg Bags (price per Liter)
HPLLC10825NAFG	High Pure TC C-108 PG Premium Grade strong cationic ion exchange resin 25 Kg Bags (price per Liter)

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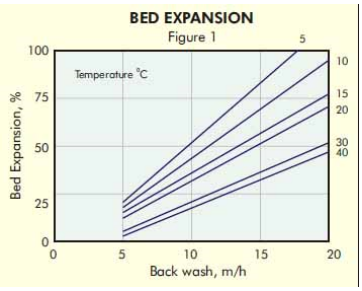
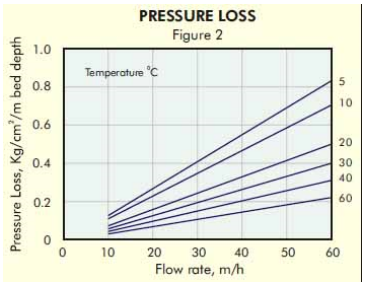
High Pure IN2250 Na Strongly Acidic Monosphere Cation Ion Exchange Resin

High Pure IN2250 Na Strongly acidic cation exchange resin controlled particle size





IN2250 Na is a controlled particle size (Monosphere), strongly acidic, unifunctional, cation exchange resin containing sulphonic acid groups. It is based on cross linked polystyrene and has a gel structure. The resin is extremely robust and has excellent physical and chemical properties. It is supplied moist in the sodium form. IN 2250 Na is used most widely in sodium form for water softening application and it can be used as a substitute for conventional cation resin. It can also be used in two-stage deionising as the cation exchanger in the hydrogen form with INGS3000Cl.

Characteristics
Appearance:Golden yellow beads
Matrix:Styrene divinylbenzene copolymer
Functional Group:Sulphonic acid
Ionic form as supplied:Sodium
Total exchange capacity:2.0 meq/ml, minimum
Moisture holding capacity:43 - 50 %
Shipping weight *:830 kg/m3, approximately
Uniformity co-efficient:1.2, maximum
Effective size:0.50 to 0.65 mm
Fine content (< 0.42mm):0.5%, maximum
Volume change:Na to H, 8 % approximately
Suggested operating conditions
Maximum operating temperature:1400 C Operating pH range 0 - 14
Minimum bed Depth:0.8 m
Service flow rate:8 - 48 BV/hr
Maximum velocity:60 m/hr
Regeneration
Regenerant:NaCl
Flow rate:2 - 4 bv / hr
Regeneration level:80 - 200 kg/m3
Concentration:10 - 15 %, w/v
Contact time:20 minutes, minimum
Slow rinse:1 - 2 bv at regeneration flow rate
Fast rinse:3- 4 bv at service flow rate
* Weight of resin, as supplied, occupying 1 m3 in a unit after backwashing and draining. 1 bv (bed volume) = 1 m3 fluid / m3 of resin

Item-Nr:	Description:
MC01RCFHPMSP	High Pure IN2250 PG Premium Grade contolled particle size strong cationic ion exchange resin 25 Kg Bags (pric

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High Pure MS60 Na Strongly Acidic Monosphere Cation Ion Exchange Resin

High Pure MS60 Na Strongly acidic cation exchange resin controlled particle size, ,unifunctional

High Pure MS60 UNIFORM STRONG ACID CATION EXCHANGE RESIN, GEL STRUCTURE 1.0 Applicable Standard of Product: GB13659-92, DL519-93, SH 2605.01-1997 2.0 Indexes of Physical and Chemical Properties: Designation MS-60 Na Matrix Polystyrene copolymer Functional Groupsulphonic
Total Exchange Capacity meq/g≥4.5 min
Volume Exchange Capacity meq/ml≥2.0 min
Water Retention %43-48 Bulk Density g/ml0.78-0.88
Special Density g/ml1.25-1.29 Effect Size mm0.55-0.65
Homogeneous Coefficient ≤1.2 max Roundness after Wearing %≥95 min
Appearancebrownish yellow to brown
Ionic Form Supplied:Na

3.0 Reference Indexes for Operation: 3.01 PH Range: 1-14
3.02 Max. Operating Temp (℃): H+≤100℃ Na+≤120℃
3.03 Total Reversible Swelling %: (Na+→H+) 8-10
3.04 Working Exchange Capacity: 25℃≥ 1100meq/l (wet)
3.05 Concentration of Regenerate Solution: NaCl: 8-10% NaOH: 4%; HCl: 4-5% 3.06 Consumption of Regenerate: NaCl(8-10%)Vol. :Resin Vol.=1.5-2:1 NaOH(4%) Vol.: Resin Vol =2-3:1 HCl(4-5%) Vol. : Resin Vol. = 2-3:1
3.07 Flow Rate of Regenerate Solution: 10-20 (m/hr)
3.08 Regenerate Contact time: 30-60 (minute)
3.09 Rinse Flow Rate:10-20 (m/hr) 3.10 Rinse Time (minute): 30 (approx.)
3.11 Operating Flow Rate: 10-45(m/hr)
4.0 Application: This product is mainly used for softening hard water and preparing pure and high purity water.
5.0 International Equivalents: AMBERJET 1200 Na (American)
6.0 Packing: Each PE lined with plastic bag, net weight: 20 KG or 25L

Item-Nr:	Description:
HPJSMONC60025	High Pure MS60 Premium Grade contolled particle size strong cationic ion exchange resin 25 Kg Bags (price per

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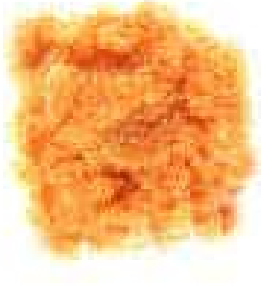
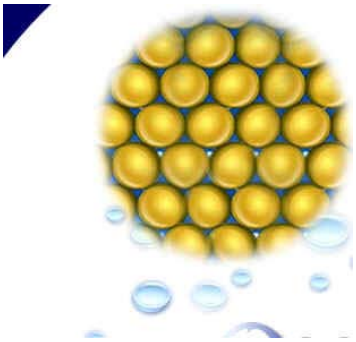
High Pure C42-108 PG NaF Monosphere

High Pure C42-108 PG strongly acidic controlled particle size cation exchange resin Premium Grade


High Pure C42-108 NaF PREMIUM GRADE STRONG ACID CONTROLLED PARTICLE SIZE CATION EXCHANGE RESIN is a gel type cation exchange resin containing Sulphonic acid as functional group, having excellent resistant to oxidizing agents with high operating capacity.
High Pure C42-108 NaF PG is supplied in moist spherical beads, in Sodium form, with excellent physical and chemical characteristics. This product is used for industrial and domestic softening at relatively low regeneration cost.
High Pure C42-108 NaF PG is NSF grade resin, conditioned during manufacturing to achieve low VOCs as per
NSF standard. However it is recommended to follow preconditioning of the resin before use as shown below.
TYPICAL CHARACTERISTICS
Type Strong acid cation exchange resin
Appearance Amber color beads Functional group Sulphonic
Physical form Moist Spherical Beads Ionic form Sodium
Screen Size USS (wet) 16 to 50 Particle size (95% min) 0.3 to 1.2 mm
Total Exchange Capacity(minimum) 2.0 meq/ml
Moisture content 45 ± 3% Reversible swelling(%) Na+ to H+ : 7
pH range 0 to 14 Solubility Insoluble in all common solvents
Backwash settled density 810 to 850 g / l (52 - 54 lbs/cft) (Na+)
Temperature stability (max.) 140OC

SUGGESTED OPERATING PARAMETERS
Maximum operating temperature 140° in Na+ form
Resin bed depth (minimum) 600 mm Maximum service flow 120 m3/hr/m3 (15 gpm/ft3) Backwash expansion space 40 to 75%
Backwash flow rate for 40-70% expansion 9 to 25 m3/hr/m3 (4 to 10 gpm/ft2)
Regenerant NaCl
Regeneration level 60 - 160 g NaCl / l (3.7 to 1.0 lbs HCl/ft3)
Regenerant concentration 5.0 - 15.0% NaCl
Regenerant flow rate 2 to 16 m3/hr/m3 (0.25 to 2 gpm/ft3)
Regeneration time 30 to 60 min
Rinse flow rate : Slow At regeneration flow rate : Fast At service flow rate
Rinse volume 3 to 5 m3/ m3
TESTING: The sampling and testing of ion exchange resins is done as per standard testing procedures, namely
ASTMD-2187 and IS-7330, 1998. PACKING:
HDPE lines Bags 25 lit. HDPE Lined Bags 1 cft

Item-Nr:	Description:
HTPMC108025NAFGM	High Pure C42-108 PG Premium Grade contolled particle size strong cationic ion exchange resin 25 Kg Bags

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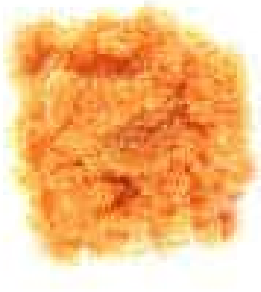
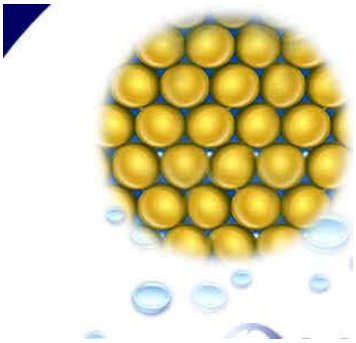
High Pure IN790 Strongly Acidic Macroporous Cation Ion Exchange Resin

High Pure IN790 strongly acidic cation exchange resin for softening





Hydrochloric Acid Regeneration
IN 790 is a macroporous strong acid cation exchange resin containing sulphonic acid groups. It is supplied in wet form as dark grey spherical beads. A proper mix of high cross linkage and porosity gives this product outstanding physical stability and makes it extremely resistant to breakdowns by osmotic, mechanical and thermal shock. IN 790 can be used directly in aqueous systems such as condensate water treatment or in organic media after conditioning with a water miscible solvent. It is also used for chemical processing applications to remove impurities (metal ions) and basic organic compounds (amines etc.) from aqueous and non aqueous systems (appropriate pretreatment is required).
Characteristics
Appearance : Opaque dark grey beads
Matrix : Styrene divinylbenzene copolymer
Functional Group : Sulphonic acid
Ionic form as supplied : Hydrogen, H+
Total exchange capacity : 1.9 meq/ml, minimum
Moisture holding capacity : 51- 55 %
Shipping weight * : 740 kg/m3 approximately
Particle size range : 0.3 to 1.2 mm
> 1.2 mm : 5.0%, maximum < 0.3 mm : 1.0%, maximum
Uniformity co-efficient : 1.7, maxi.Effective size : 0.45 to 0.60 mm
Maximum operating temperature : 120 - 1500 C
Operating pH range : 0 to 14 Resistance to reducing agents : Good
Resistance to oxidizing agents : Generally good, chlorine should be absent *
Weight of resin, as supplied, occupying 1 m3 in a unit after backwashing & draining.

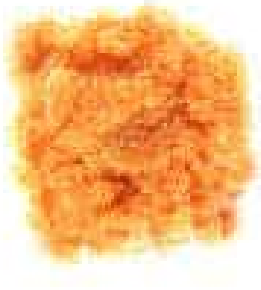
Applications : De-ionising IN 790 in hydrogen form is used as a first step in deionising. Technical data for counter current regeneration is given in this literature.
Two stage de-ionising : Two stage de-ionising uses two units in series - the first containing IN 790 as cation exchanger and second containing strong base anion exchanger Type I resins such as IN FFIP/GS 300/810 or Type II resins such as IN NIP/GS 400/820.
Mixed bed de-ionsing When treated water of highest possible quality is required, IN 790 strong acid cation exchange resin is used with IN FFIP in a mixed bed unit. A mixed bed is often operated as the last unit in a de- ionising stream to act as a polisher for producing water of highest quality. Typical operating data
Two stage/multiple stage de-ionising
Counter current regeneration
Minimum bed depth ..... 1.0 m
Treatment flowrate ..... 45 m3/h m2, maximum
Pressure loss ..... Refer Figure 7
Bed expansion ..... Refer Figure 6
Backwash..... 9 m3/h m2 till effluent is clear*
Regenerant ..... Hydrochloric acid (2.5 to 5.0% w/v)
Regenerant flowrate ..... 3 - 18 m3/h m2
Regenerant injection time ..... 20 minutes, minimum
Slow rinse ..... 2-3m3/m3 at injection flowrate
Final rinse..... For 5 minutes at treatment flowrate

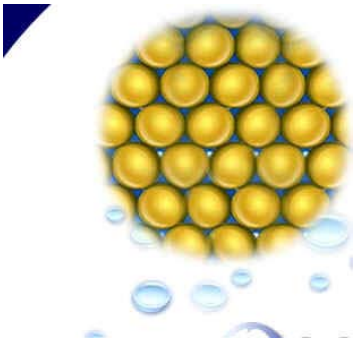
Item-Nr:	Description:
MC01RCMSQNA	High Pure IN790 Macroporous strong cationic ion exchange resin 25 Kg Bags (price per Liter)

Celtis Water Srl SP33 Km 0,230 Loc.Bettolino Nord, I-25030 Brandico (Bs) -Italy-Tel +39 030 2056433 Fax +39 030 2053465 e-mail: info@celtis-water.com

High Pure D42 Chelating Ion Exchange Resin

High Pure D42 MACROPOROUS POLYSTYRENE CHELATING RESIN





D42 MACROPOROUS POLYSTYRENE CHELATING RESIN
1.0 Applicable Standard of Product: Q/320281, NAN06-1997
2.0 Indexes of Physical and Chemical Properties:
Characteristics
Total Exchange Capacity meq/g ≥Chelated Cu2-≥1.95
Volume Exchange Capacity meq/ml≥Chelated Cu2-≥0.6
Volume Exchange Capacity meq/ml≥2.4 in H form
Functional GroupIminodiacetate
Water Retention %52-58
Bulk Density g/ml0.72-0.78
Special Density g/ml1.15-1.25
Particle Size %(0.4 -1.25mm)≥95
Effect Size mm0.50-0.80
Homogeneous Coefficient ≤1.60 max
Ionic FormNa

AppearanceLight yellow bead
3.0 Reference Indexes for Operation:
3.01 PH Range: 6-11
3.02 Operating Temp (℃): 0°C-100°C
3.03 Operating Flow Rate: 15-45(m/hr)
3.04 Max Swelling Rate: (H – Na) 40%
4.0 Packing:
Each PE lined with plastic bag, net weight: 25 L or 20 KG
5.0 International Equivalents: Amberlite IRC747 Bayer TP260 Purolite S930 6.0 Application: It is widely used in the treatment of waste water containing heavy metal ions. It has high selectivity for multi-valence metal ions.

Item-Nr:	Description:
HPJSCC42025	High Pure D42 Macroporous Polystyrene Chelating Resin 25 Kg Bags (price per liter)

Celtis Water Srl SP33 Km 0,230 Loc.Bettolino Nord, I-25030 Brandico (Bs) -Italy-Tel +39 030 2056433 Fax +39 030 2053465 e-mail: info@celtis-water.com

ION EXCHANGE ANION RESINS

Celtis Water Srl SP33 Km 0,230 Loc.Bettolino Nord, I-25030 Brandico (Bs) -Italy-Tel +39 030 2056433 Fax +39 030 2053465 e-mail: info@celtis-water.com

High Pure NSSR Nitrate Removal Macroporous Strongly Basic Anion Ion Echange Resin

High Pure NSSR Anion Ion exchange resin for nitrate removal

IN NSSR is a macroporous strongly basic anion resin which is tailor made to suit removal of nitrate ions from water for potable uses. The proper mix of physico - chemical properties gives ideal nitrate exchange kinetics to this resi making suitable for nitrate removal in the presence of sulphate ions.
High concentration of nitrate in water is a potential hazard for two reasons. The nitrate ions form complexes with the blood and in the long run cause oxygen depletion affecting human life. The flow of nitrate bearing water through iron pipes can cause depletion of oxygen leading to corrosion. In view of these difficulties use of an Ion Exchange resin is the preferred process for nitrate removal. Characteristics
Appearance:Opaque off white to brown beads
Matrix:Styrene divinyl benzene copolymer
Functional Group:Quaternary ammonium
Ionic form as supplied:Chloride
Total exchange capacity:0.9 meq/ml, minimum
Moisture holding capacity:45 - 55 %
Non Spherical beads:10 %
Shipping weight *:670 kg/m3, approximately
Particle size range:0.3 to 1.2 mm
> 1.2 mm:5.0%, maximum

N NSSR is a macroporous strongly basic anion resin which is tailor made to suit removal of nitrate ions from water for potable uses. The proper mix of physico - chemical properties gives ideal nitrate exchange kinetics to this resi making suitable for nitrate removal in the presence of sulphate ions.
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Matrix:Styrene divinyl benzene copolymer
Functional Group:Quaternary ammonium
Ionic form as supplied:Chloride
Total exchange capacity:0.9 meq/ml, minimum
Moisture holding capacity:45 - 55 %
Non Spherical beads:10 %
Shipping weight *:670 kg/m3, approximately
Particle size range:0.3 to 1.2 mm
> 1.2 mm:5.0%, maximum
< 0.3 mm:1.0%, maximum
Uniformity co-efficient .:1.7, maximum
Effective size:0.40 to 0.50 mm
Maximum operating temperature:100 0C in Cl form
Operating pH range:0 to 14
Resistance to reducing agents:Good
Resistance to oxidizing agents:Generally good, chlorine should be absent
Osmotic stability:Excellent
* Weight of resin, as supplied, occupying 1 m3 in a unit after backwashing and draining.

Typical operating data
Bed Depth:1.0 m
Backwash:5 m3 / h m2 for 5 to 10 minutes
Regenerant:NaCl
Regeneration level:125 kg of NaCl / m3
Regenerant Concentration:5 - 10% w/v
Injection flow rate:2 - 4 bv/h
Slow rinse volume:2 bv
Slow rinse flowrate:At injection flowrate
Fast rinse volume:6 bv
Fast rinse flowrate:At service flowrate
Treatment flow rate:8 - 30 bv/h
Operating capacity

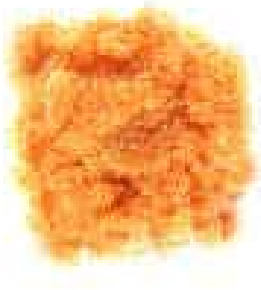
Item-Nr:	Description:

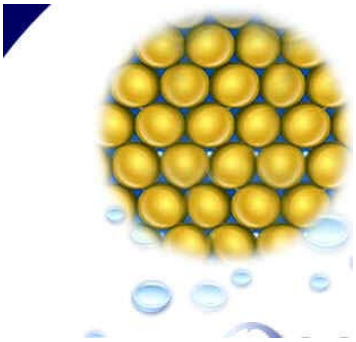
Celtis Water Srl SP33 Km 0,230 Loc.Bettolino Nord, I-25030 Brandico (Bs) -Italy-Tel +39 030 2056433 Fax +39 030 2053465 e-mail: info@celtis-water.com

MC300N02RAN High Pure NSSR Macroporous strongly anion resin for nitrate ions removal

High Pure GS300 Strongly Anion Ion Echange Resin

High Pure GS300 Anion Ion exchange resin





IN GS 300 is a strong base Type I anion exchange resin, containing quaternary ammonium groups. It is based on crosslinked polystyrene and has a gel structure with high mechanical strength. IN GS 300 is effective in removing weak acids like carbonic and silicic acids along with strong acids. It is recommended for use in two stage / multiple stage or Applications : mixed bed de-ionising unit for producing high quality demineralised water with lowest possible residual silica. Being a high strength gel resin, it is recommended for use in condensate polishing. It is also recommended for speciality non water applications such as caprolactum purification.
IN GS 300 is used in combination with strong acid cation resin such as IN 225 or IN 525.
Characteristics
Appearance : Translucent pale yellow beads
Matrix : Styrene divinylbenzene copolymer
Functional Group : Benzyl trimethyl amine
Ionic form as supplied : Chloride
Total exchange capacity : 1.3 meq/ml, minimum
Moisture holding capacity : 48 - 54%
Shipping weight * : 650 kg/m , approximately
Bead strength : 300 g (avg) Particle size range : 0.3 to 1.2mm
>1.2mm : 5.0%, maximum <0.3mm : 1.0%, maximum
Uniformity co - efficient : 1.7, maximum
Effective size : 0.45 to 0.55mm Maximum operating temperature : 60 CinOHform 80 Cin Cl form
Operating pH range : 0 to 14
Volume change : Cl toOH, 25 - 30%approximately
Resistance to reducing agents : Good
Resistance to oxidizing agents : Generally good, chlorine should be absent
*Weight of resin, as supplied, occupying 1m in a unit after backwashing & draining.

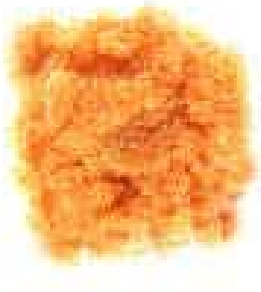
Use of good quality regenerants
All ion exchange resins are subject to fouling and blockage of active groups by precipitated iron. Hence the iron content in the feed water should be low and the regenerant sodium hydroxide must be essentially free from iron and heavy metals. All resins, especially the anion exchangers are prone to oxidative attack resulting in problems such as loss of capacity, resin clumping, etc. Therefore sodium hydroxide should have as low a chlorate content as possible. Good quality regenerant of technical or chemically pure grade should be used to obtain best results.
Packing : HDPE lined bags 25/50 lts LDPE bags 1cft/25 lts Super sack 1000 lts Super sack 35 cft MS drums 180 lts Fiber drums 7 cft with liner bags with liner bags
Storage : Ion exchange resins require proper care at all times. The resin must never be allowed to become dry. Regularly open the plastic bags and check the condition of the resin when in storage. If not moist, add enough clean demineralised water and keep it in completely moist condition. Always keep the resin drum in the shade. Recommended storage temperature is between 20 Cand 40 C
Safety : Acid and alkali solutions are corrosive and should be handled in a manner that will prevent eye and skin contact. If any oxidising agents are used, necessary safety precautions should be observed to avoid accidents and damage to the resin.

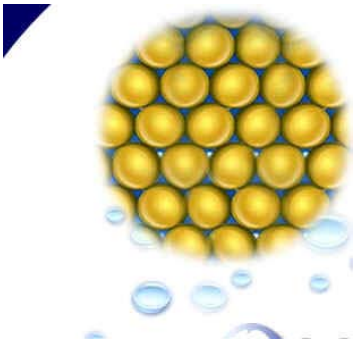
Item-Nr:	Description:
MC300A02RA	High Pure GS300 Strong anion ion exchange resin 25 l Bag (Price per Liter)

Celtis Water Srl SP33 Km 0,230 Loc.Bettolino Nord, I-25030 Brandico (Bs) -Italy-Tel +39 030 2056433 Fax +39 030 2053465 e-mail: info@celtis-water.com

High Pure MWBA31 Weak Base Anion Ion Ecxchange Resi

High Pure MWBA31 WEAK BASE ANION EXCHANGE RESIN





MWBA31 WEAK BASE ANION EXCHANGE RESIN
1.0 Applicable Standard of Product: HG2165-91, DL519-93 SH2605.09-1997 Indexes of Physical and Chemical Properties:
Characteristics
Total Exchange Capacity meq/g ≥4.8 min
Volume Exchange Capacity meq/ml≥1.45 min
Water Retention % 48-58 Bulk Density g/ml0.65-0.72
Specific Density g/ml1.03-1.06 Particle Size %(0.315-1.25 mm)≥95
Effect Size mm 0.40-0.70 Homogeneous Coefficient ≤1.6 max
Roundness after Wearing %≥ 95 mi

Reference Indexes for Operation:
PH Range: 0-9 3.02 Max. Operating Temp (℃): OH-≤100℃ Cl-≤40℃
Total Reversible Swelling %: (OH- → Cl-) ≤20
Working Exchange Capacity : 25℃≥1000meq/l (wet)
Concentration of Regenerate Solution : NaOH: 2-4 %
Consumption of Regenerate: 4%NaOH Vol.: Resin Vol. = 2-3:1
Flow Rate of Regenerate Solution : 4-6(m/hr)
Regenerate Contact time : 30-50(minute)
Rinse Flow Rate: 15-25 (m/hr) Rinse Time (minute): 30 (Approx.)
Operating Flow Rate:10-45 (m/hr)
This product is mainly used for preparing pure and high purity water, water demineralizing equipment. Water deionization through Mixed Bed in combination with strongly Acidic Cation Exchange Resin.
International Equivalents: Amberlite IRA-94/96 (American) Dowex MWA-1/66 (German) Bayer MP-62/64 Purolite A-100
Packing: Each PE lined with plastic bag, net weight: 20 KG or 25 L

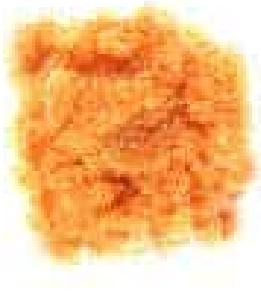
Item-Nr:	Description:
HPJSMWBA31025	High Pure MWBA31 Weak Base Anion Exchange Resin 25 l Bag (Price per Liter)

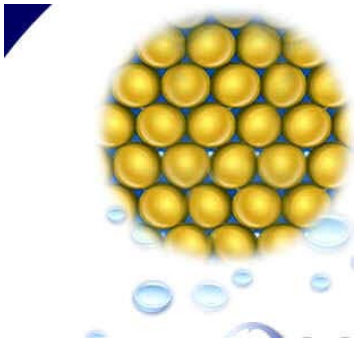
Celtis Water Srl SP33 Km 0,230 Loc.Bettolino Nord, I-25030 Brandico (Bs) -Italy-Tel +39 030 2056433 Fax +39 030 2053465 e-mail: info@celtis-water.com

MIXED BED ION EXCHANGE RESINS

High Pure MB11 Mixed Bed Ion Echange Resin

High Pure MB11 Mixed bed ion exchange resins





High Pure IN MB 11 is a mixed bed ion exchange resin. It is a mixture of highly purified and super regenerated strong acid cation and strong base anion resins in 1 : 1 volume ratio.
Applications
High Pure IN MB 11 is recommended in any non regenerable mixed bed application where reliable production of the highest quality water is required and where “as supplied” resin must have an absolute minimum of ionic and nonionic contamination.
Physical Characteristics
Appearance:Spherical beads
Shipping weight *:720 kg/m3, approximately
Particle size range:0.3 to 1.2 mm
> 1.2 mm:5.0 %, maximum
< 0.3 mm:0.5 %, maximum
Uniformity co-efficient:1.8, maximum
Effective size:0.45 to 0.60 mm
Microscopic Examination:Surface cracks not more than 5 %
Variant
High Pure IN MB 11 resin is also available with the additional feature of colou change at exhaustion. Three variants of this colour indicating Indion MB 11 ar available :
IN MB 11 (GVI)Green to Violet
IN MB 11 (BYI) Blue to Yellow
IN MB 11 (GOI) Green to Orange

Packing
PVC Jars with inner liner bags5 / 6 lts LDPE lined bags0.5 cft / 1 cft / 25 lts
HDPE lined bags25 / 50 lts
HDPE drums50 / 100 / 180 lts

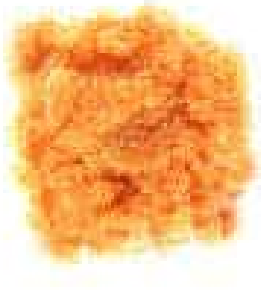
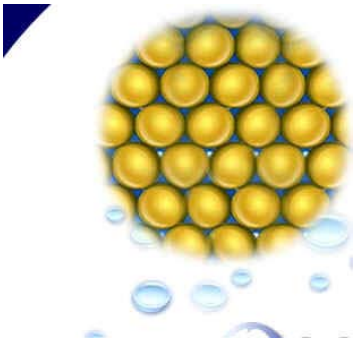
Storage
Ion exchange resins require proper care at all times. Resins must never be allowed to become dry. Resins should therefore be always kept in shade. Since IN MB 11 is supplied in highly regenerated condition, any exposure tc atmospheric air must be avoided as this will convert it to the carbonate form. The resin packing should not be opened during storage.
Safety
Acid and alkali solutions used for regeneration are corrosive and should be handled in a manner that will prevent eye and skin contact. If any oxidising agents are used, necessary safety precautions should be observed to avoid accidents and damage to the resin.

Item-Nr:	Description:
MC01RLMSQMBS1	High Pure MB11 Mixed bed ion exchange resins 25 l packaging - (Price per liter)
MC01RLMSQMBVG	MB11 BYI Colour change mixed bed resin for desalination - 25 l bag - price per liter

Celtis Water Srl SP33 Km 0,230 Loc.Bettolino Nord, I-25030 Brandico (Bs) -Italy-Tel +39 030 2056433 Fax +39 030 2053465 e-mail: info@celtis-water.com

High Pure MB8 Mixed Bed Ion Echange Resin

High Pure MB8 Mixed bed ion exchange resins

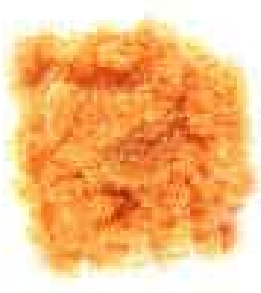
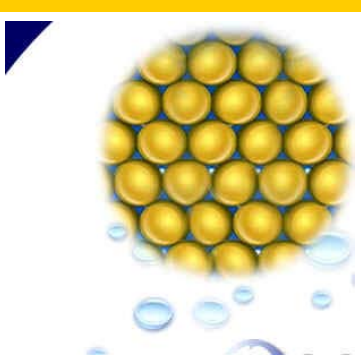
MB-8 Mixed Bed Resin
1.0 Indexes of Physical and Chemical Properties:
Characteristics Physical Form Spherical Beads
Ionic Form Shipped (%) H+/OHShipping
Weight 730 g/l
Total Exchange Capacity mmol/ml C a t io n : 1 . 8 min Anion: 1.1 min
Particle Size Cation: 0.5-1.25mm Anion: 0.4-0.9mm
Effective Size 0.4-0.7 mm Uniformity Coefficient 1.6 Max
Resistivity ≥10 mega ohms
Volume Ratio(Approximate) 60% Parts Strong Base Anion
40% Parts Strong Acid Cation 2.0 Reference Indexes for Operation:
Operating Temperature: Max: 60℃
Service Flowrate: 5-7 gpm/sq.ft (12-17 m/hr)

Backwash Expansion: Min: 50%
Regenerant Percent Concentration: HCl 1-6%
Cation: H2SO4 1-4% Anion: NaOH 4-6%
Regeneration Flowrate: 0.25-1.0 gpm/cf
Regeneration Injection Time: Cation: 25-40 minutes
Anion: 45-60 minutes
Fast Rinse Volume: Min: 7 Bed Volume
Fast Rinse Flowrate: Service Flowrate
3.0 International Equivalents:
Amberlite MB 8/20, Sybron MI-60
4.0 Packing: Each PE lined with plastic bag, net weight: 25 L or 20 KGS

Item-Nr:	Description:
HPJSMB8025C4A6	High Pure MB8 Mixed bed ion exchange resins 25 l packaging - (Price per liter)

High Pure M-106 Mixed Bed Ion Echange Resin

High Pure MB-106 PREMIUM MIXED ION EXCHANGE RESIN FOR HIGH PURITY WATER

MB-106 “PREMIUM MIXED ION EXCHANGE RESIN FOR HIGH PURITY WATER
MB-106 is a mixture of strongly acidic cation exchange resin T-46 in hydrogen form and a strongly basic anion exchange resin T A-33 in hydroxide form in 1:2 volumetric ratios.
MB-106 is ready to use mixed bed mixture suitable for high purity DM water
MB- 106 is recommended in any mixed bed application where reliable production of the highest quality water is required and where the supplied resin must have an absolute minimum of ionic and non-ionic impurities

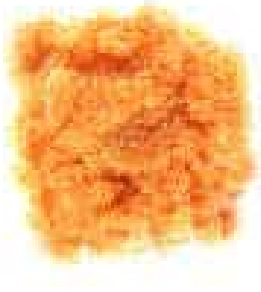
TESTING : The sampling and testing of ion exchange resins is done as per standard testing procedures, namely ASTMD-2187 and IS-7330, 1998.
PACKING : Super Sack 1000 lit. Super Sack 35 cft
MS drums 180 lit. Fiber Drums 7 cft
HDPE lines Bags 25 lit. HDPE Lined Bags 1 cft
For Handling, Safety and Storage requirements please refer to the individual Material Safety Data Sheets available
at our offices.

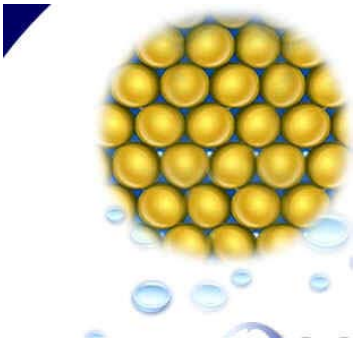
Item-Nr:	Description:
HPTMMB106025C5A5	High Pure MB106 Mixed bed ion exchange resins 25 l packaging - (Price per liter)

Celtis Water Srl SP33 Km 0,230 Loc.Bettolino Nord, I-25030 Brandico (Bs) -Italy-Tel +39 030 2056433 Fax +39 030 2053465 e-mail: info@celtis-water.com

High Pure MB-115 Mixed Bed Ion Echange Resin

High Pure MB-115 MIXED ION EXCHANGE RESIN FOR HIGH PURITY WATER





MB-115 MIXED BED ION EXCHANGE RESIN FOR HIGH PURITY WATER
MB-115 is a mixture nuclear grade strongly acidic cation exchange resin T-46 in Hydrogen form and nuclear grade strongly basic anion exchange resin A-3 in hydroxide form in 1:1.5 volumetric ratio.
MB-115 is designed for use in the final polishing of production of ultrapure water. This resin is also be used in Electrical Discharge Machine (EDM) de-mineralized water. These resins have higher
capacity with excellent physical properties.
MB-115 is the ideal choice for electronic industries in the manufacturing of semiconductors where highest quality water is required and where the produc needs minimum of ionic and non-ionic contamination.
INFLUENT LIMITATION
Free chlorine Not traceable - Turbidity Less than 2 NTU
Iron and heavy metals Less than 0.1 ppm

TESTING : The sampling and testing of ion exchange resins is done as per standard testing procedures, namely ASTMD-2187 and IS-7330, 1998.
PACKING : Super Sack 1000 lit. Super Sack 35 cft
MS drums 180 lit. Fiber Drums 7 cft
HDPE lines Bags 25 lit. HDPE Lined Bags 1 cft
For Handling, Safety and Storage requirements please refer to the individual Material Safety Data Sheets available
at our offices.

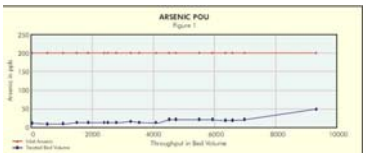
Item-Nr:	Description:
HPTMMB115025C4A6	High Pure MB115 Mixed bed ion exchange resins 25 l packaging (Price per liter)

Celtis Water Srl SP33 Km 0,230 Loc.Bettolino Nord, I-25030 Brandico (Bs) -Italy-Tel +39 030 2056433 Fax +39 030 2053465 e-mail: info@celtis-water.com

ION EXCHANGE RESIN FOR ARSENIC REMOVAL

High Pure ASM Arsenic removal Ion Echange Resin

High Pure ASM Special Ion exchange resin for arsenic removal



Inlet feed water quality

Sr.no.	Parameters	Values
1	pH	7.30
2	Conductivity	600 - 700 µs / cm
3	Alkalinity	352 ppm as $CaCO_3$
4	Total Hardness	340 ppm as $CaCO_3$
5	Iron	0.5 to 1 ppm as Fe
6	Arsenic	0.2 ppm as As
7	Treatment flow rate LPH	60 - 90

Description IN-ASM is an ion exchange resin based media designed to selectively remove arsenic from ground water without affecting the characteristics of influent water. IN-ASM performs well, even in the presence of common anions such as chlorides, sulphates or bicarbonates. IN ASM is used like conventional ion exchange resins. Characteristics Appearance:Reddish brown beads Matrix:Isoporous Moisture holding capacity:47 - 54 % Shipping weight:800 g/l , approximately True density:1.145 g/ml, approximately Particle size range:0.3 mm to 1.2 mm Operating parameters : Maximum operating temperature:60° C Operating pH range:6.5 to 9.0 Arsenic adsorption capacity:0.5 - 1.5 g /l Static arsenic adsorption capacity:25 - 30 mg /g Recommended contact time:2.5 to 5 minutes (Typical 3 minutes) Specific service flow rate:Typical 20 - 30 BV/h Minimum bed depth:0.5 m

Salient features l IN ASM Selectively removes arsenic in presence of other anions. l It removes As III as well as AS IV.
l IN ASM is operated like conventional ion exchange resins and operates at conventional pressures.
l Physically stable during usage, does not generate fines.
l Effluent arsenic levels does not exceed influent levels at any point of norma operation. l Ideal for municipal and residential POE & POU devices.
l IN ASM was tested for Volatile organic compounds VOC's, and found to be within the drinking standard as per EPA 8021 B.
L Water treated through INDION ASM was tested for oral toxicity as per IP (Indian Pharmacopoeia) and found to be safe for human consumption.
L Exhausted INDION ASM is non toxic and safe for disposal as per TCLP (Toxicity characteristic leaching procedure as per EPA 1311). Please follow Local regulations for disposal.

Item-Nr:	Description:
MCARS025ID	High Pure Anion resin for arsenic removal - 25 l packaging - Price per litre

Celtis Water Srl SP33 Km 0,230 Loc.Bettolino Nord, I-25030 Brandico (Bs) -Italy-Tel +39 030 2056433 Fax +39 030 2053465 e-mail: info@celtis-water.com

High Pure ASM407 Arsenic removal Ion Echange Resin

High Pure ASM407 Special Ion exchange resin for arsenic removal

Description IN-ASM is an ion exchange resin based media designed to selectively remove arsenic from ground water without affecting the characteristics of influent water. IN-ASM performs well, even in the presence of common anions such as chlorides, sulphates or bicarbonates. IN ASM is used like conventional ion exchange resins. Characteristics Appearance:Reddish brown beads Matrix:Isoporous Moisture holding capacity:47 - 54 % Shipping weight:800 g/l , approximately True density:1.145 g/ml, approximately Particle size range:0.3 mm to 1.2 mm Operating parameters : Maximum operating temperature:60° C Operating pH range:6.5 to 9.0 Arsenic adsorption capacity:0.5 - 1.5 g /l Static arsenic adsorption capacity:25 - 30 mg /g Recommended contact time:2.5 to 5 minutes (Typical 3 minutes) Specific service flow rate:Typical 20 - 30 BV/h Minimum bed depth:0.5 m

Salient features l IN ASM Selectively removes arsenic in presence of other anions. l It removes As III as well as AS IV. l IN ASM is operated like conventional ion exchange resins and operates at conventional pressures. l Physically stable during usage, does not generate fines. l Effluent arsenic levels does not exceed influent levels at any point of norma operation. l Ideal for municipal and residential POE & POU devices. l IN ASM was tested for Volatile organic compounds VOC's, and found to be within the drinking standard as per EPA 8021 B. L Water treated through INDION ASM was tested for oral toxicity as per IP (Indian Pharmacopoeia) and found to be safe for human consumption. L Exhausted INDION ASM is non toxic and safe for disposal as per TCLP (Toxicity characteristic leaching procedure as per EPA 1311). Please follow Local regulations for disposal.

Item-Nr:	Description:
HPJSASM025D47	High Pure ASM47 Anion resin for arsenic removal - 25 l packaging - (Price per liter)

Celtis Water Srl SP33 Km 0,230 Loc.Bettolino Nord, I-25030 Brandico (Bs) -Italy-Tel +39 030 2056433 Fax +39 030 2053465 e-mail: info@celtis-water.com

INERT MATERIAL

INERT MATERIAL

Inert material type I2

QL INERT WHITE SPHERE
1. Indexes of Physical and Chemical Properties:
Characteristics Appearance Cylindrical form
Particle Size mm Length 1.4±0.1 Diameter 1.3±0.1
Special Density g/ml 0.88-0.92 Bulk Density g/ml 0.50-0.57
Heat Resistance ℃ ≤100 Wearability % ≥99.5
Acid-base Soluble Matter % ≤0.3 Ph Range 0-14
2. Application: This product is mainly used to fix bed, reverse flow regeneration bed and double floating bed. The product is widely used in chemical industry, power industry, metallurgical industry, medicine industry, etc. The product can treat technical problem in water treatment and save 20% ion exchange resin and acid-base.
3. Remark: Inert polymer in cylindrical form for upflow counter-current collection systems to prevent strainer
blockage. 4. International Equivalents: BAYER IN42 PUROLITE IP4 AMBERLITE RF14 DOWEX XZ46287
5. Packing: Each PE lined with plastic bag, net weight: 25L or 20 KG

Item-Nr:	Description:
HPJISINQL2025	Inert material type I2

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OTHER FILTRATION MEDIA

GAC — Granular Activated Carbon

Item-Nr:	Description:
MCGAC0830CC	Granular activated carbon (coal) 25 in Kg bags
MCGAC0830VC	Activated carbon powder (coconutl) mesh 0,045 mm in bags of 25 Kg Iodine min.1000 mg/g pH 8 -11
MCGAC1240CC	Granular activated carbon (coal) 25 in Kg bags
MCGAC1240CS	Granular activated carbon coconut shell gran.12x40
MCYAC0304CIL	Granular activated carbon (coal) in small cylinders 3-4 mm in 25 Kg bags

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Antracite

Anthracite

ANTHRACITE - COMPOSITION / PRODUCT INFORMATIONCOMMERCIAL NAME: ANTHRACITE, FOR FOAMY SCORESDESCRIPTION, Sedimentary rock of dark gray casting. The main component is carbon, accompanied in minimal quantities by sulfur, nitrogen and hydrogen. For the characterization of the product, ash and volatile matter are also determined. Below is the chemical composition of the material ANALYSIS:FIXED CARBON 78.0-80.0% DENSITY IN PILE 0.7-0.98 kg / dm3 ASH 9.0-14.0% REAL DENSITY 1.2-1.6 kg / dm3 VOLATILE MATTER 6- 7% SULFUR <1.0% NITROGEN 1.40% HUMIDITY Max 1.5% TYPICAL SIZES AVAILABLE: Ready for delivery 0.5-1 mm, 1-4 mm, 6-13 mm OTHERS: AT THE CUSTOMER'S SPECIFIC REQUEST

USE OF THE PRODUCTAnthracite introduced directly into the charging baskets with scrap brings both carbon and energy to the steelmaking process. If it is injected it leads to the formation of foamy waste. In the latter field, anthracite is blown in during the melting phases of the metal bath at the point of contact between liquid steel and slag. The constant granulometry of the material creates a homogeneous layer of well foamed slag. The accurate verification of the chemical analysis certifies the absence of compounds that can pollute the metal phase. The use of anthracite for foamy slag supplied by us allows considerable energy savings (greater efficiency of electric energy transfer of the arc, better yield of the scrap liquid) on the materials (less arc reverberation on refractories, less oxidation of the electrodes) improvements environmental (decrease in arc noise). The use of anthracite, as a refueling and fuel, allows to optimize costs and the restricted particle size distribution also allows to obtain the reduction of the specific consumption of coal in charge. Ulteriori informazioni su questo testo di originePer avere ulteriori informazioni sulla traduzione è necessario testo di origineInvia commentiRiquadri lateraliCronologiaSalvateContribuisciLimite di caratteri: 5.000. Usa le frecce per tradurre altre parti.

Item-Nr:	Description:
MCANTK251224	Anthracite filtration media granulometry 1.2-2.4 - 25 Kg bag (price per Kg)

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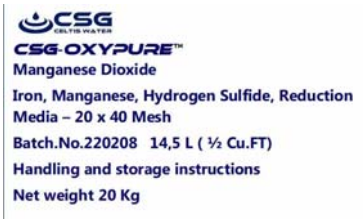
CSG-OXYPURE™ Pirolusite-Biossido di manganese

CSG-OXYPURE™ Manganese dioxide (Pyrolusite) Iron and manganese removal



Oxypure ™ -PYROLUSITE is a highly selected natural mineral water filtration medium, free of additives and impurities, for use as a catalyst in the oxidation and removal of iron, manganese and hydrogen sulphide.PYROLUSITE is used in pressure or gravity filters mixed from 20% to 50% by volume with sand of suitable granulometry (about 0.5-1.0 / 0.7-1.2 mm), for removal by catalytic oxidation of iron and manganese from water.Through a natural chemical reaction, Oxypure ™ has the ability to help produce clean, high quality water. Pyrolusite Oxypure ™ works by oxidizing iron, manganese and hydrogen sulfide in problem water. The trapped particulate matter is then removed from the material bed during the backwash cycle.To maintain and further improve the long-term performance and removal capacity of the medium, it is recommended to feed with some type of oxidant.This will help maintain support and improve removal ability. Injecting chlorine (options include chlorine, sodium hypochlorite, or calcium hypochlorite) immediately upstream of the filter is a simple and effective way to meet this recommendation.Other good oxidants include air injection, potassium permanganate, sodium permanganate, etc. Hydrogen peroxide is absolutely prohibited for use as an oxidant.It is important that the Oxypure ™ bed is properly backwashed to ensure adequate bed expansion and continuous service life. It is recommended to install Oxypure ™ with a gravel bed and backwash daily.

GENERAL TECHNICAL FEATURESAppearance: granulesColor: dark brownParticle size: 0.355 0.850mm .¸Bulk density: 2,000 g / lHardness (Moh's scale): 3¸5 mmManganese content: 80% -METHOD OF USEAdd 20% to 50% by volume of pyrolusite in a sand bed with 1.2 mm. ¸ 1.0 / 0.7 ¸ particle size 0.5Backwash to allow uniform mixingof the two media and to ensure, in filtration, the maximum contact time between the water and the catalytic bed. The filter bed must be washed gently not exceeding 25 m3 / m2 / h. The typical filtration speed must not exceed 10 m / h A catalytic bed with the characteristics described above has pressure drops and expansion in counter-current washing, comparable to a filter bed composed only of sand of the same size.Packaging: 20 kg or 1000 kg bags

Item-Nr:	Description:
MCMNO2PIR025000	Manganese dioxide (Pyrolusite) 25 Kg bag - Bag price

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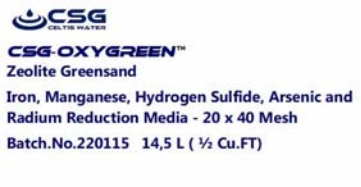
CSG-OXYGreen™ Zeolite Greensand

CSG-OXYGreen™ Manganese Greensand (Silicate coated with MnO2)



CSG-OXYGreen™ is a black filter media used for removing soluble iron, manganese, hydrogen sulfide, arsenic and radium from groundwater supplies. The manganese dioxide coated surface of CS-ZeoPlus acts as a catalyst in the oxidation reduction reaction of iron and manganese.
The silica sand core of CS-ZeoPlus allows it to withstand waters that are low in silica, TDS and hardness without breakdown.
CS-ZeoPlus is effective at higher operating temperatures and higher differential pressures than standard manganese greensand. Tolerance to higher differential pressure can provide for longer run times between backwashes and a greater margin of safety. Systems may be designed using either vertical or horizontal pressure filters, as well as gravity filters. CS-ZeoPlus is a proven technology for iron, manganese, hydrogen sulfide, arsenic and radium removal. Unlike other media, there is no need for extensive preconditioning of filter media or lengthy startup periods during which required water quality may not be met.
CS-ZeoPlus is an exact replacement for manganese greensand. It can be used in CO or IR applications and requires no changes in backwash rate or times or chemical feeds.
CS-ZeoPlus has the NSF Certification. Packaging is available in 25 Kg Bags or big bags 500 Kg.

PHYSICAL CHARACTERISTICS
Ions removed: iron + manganese + arsenic (in part)
Compatibility with chlorine: yes
Physical Form : Black, nodular granules shipped in a dry form
Apparent Density 88 pounds (39,9 Kg) per cubic foot net
Shipping Weight 90 pounds (40 Kg) per cubic foot gross
Specific Gravity Approximately 2.4 Porosity Approximately 0.45
Screen Grading (dry) 18 X 60 mesh Effective Size 0.30 to 0.35 mm
Uniformity Coefficient Less than 1.60 pH Range 6.2-8.5 - Maximum
Temperature No limit Backwash Rate Minimum 12-13 gpm/sq. ft. at 55ºF (13°C) Service Flow Rate 2 - 12 gpm/sq. Ft. (7-45 lpm/sq.ft)
Minimum Bed Depth 15 inches of each media for dual media beds or 30 inches of CS-ZeoPlus alone

Item-Nr:	Description:
MCMGSZP01416	CSG-ZeoPlus (Manganese Greensand) 14,15 l bags (Bag price)

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Greensand Plus

GreenSand Plus Manganese Greensand (Silicate coated with MnO2)

GreensandPlus TM is a black filter media used for removing soluble iron, manganese, hydrogen sulfide, arsenic and radium from groundwater supplies. The manganese dioxide coated surface of GreensandPlus acts as a catalyst in the oxidation reduction reaction of iron and manganese.
The silica sand core of GreensandPlus allows it to withstand waters that are low in silica, TDS and hardness without breakdown.
GreensandPlus is effective at higher operating temperatures and higher differential pressures than standard manganese greensand. Tolerance to higher differential pressure can provide for longer run times between backwashes and a greater margin of safety. Systems may be designed using either vertical or horizontal pressure filters, as well as gravity filters. GreensandPlus is a proven technology for iron, manganese, hydrogen sulfide, arsenic and radium removal. Unlike other media, there is no need for extensive preconditioning of filter media or lengthy startup periods during which required water quality may not be met.
GreensandPlus is an exact replacement for manganese greensand. It can be used in CO or IR applications and requires no changes in backwash rate or times or chemical feeds.
GreensandPlus has the WQA Gold Seal Certification for compliance with NSF/ANSI 61. Packaging is available in 1/2 cubic foot bags or 1 metric ton (2,205 lbs) bulk sacks.

PHYSICAL CHARACTERISTICS
Physical Form : Black, nodular granules shipped in a dry form
Apparent Densit 88 pounds per cubic foot net
Shipping Weight 90 pounds per cubic foot gross
Specific Gravity Approximately 2.4
Porosity Approximately 0.45
Screen Grading (dry) 18 X 60 mesh
Effective Size 0.30 to 0.35 mm
Uniformity Coefficient Less than 1.60
pH Range 6.2-8.5 (see General Notes)
Maximum Temperature No limit
Backwash Rate Minimum 12 gpm/sq. ft. at 55ºF (see expansion chart)
Service Flow Rate 2 – 12 gpm/sq. ft.
Minimum Bed Depth 15 inches of each media for dual media beds or 30 inches of GreensandPlus alone.

Item-Nr:	Description:
MCMGSR01400	Greensand Plus(Manganese Greensand) 14,15 l bags (Bag price)

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Filter-Ox™

Filter-Ox™ Manganese Greensand (Silicate coated with MnO2)

Filter-Ox TM is a highly effective filter media capable of reducing iron, manganese and hydrogen sulfide from water through oxidation and filtration. Soluble iron and manganese are oxidized and precipitated by contact with the catalytic coating on the Filter-Ox™ granules. The hydrogen sulfide is oxidized to an insoluble sulfur precipitate. Precipitates are then filtered and removed by backwashing.
Filter-Ox™ is an engineered media that utilizes a super high purity manganes dioxide coating bonded to a durable, lightweight silica substrate. Manganese dioxide is a powerful oxidizer and Filter-Ox™ contains more manganese dioxide than other manganese based filter medias. Manufactured in the USA, Filter-Ox™ contains almost no fines and does not require long initial backwas times. A standard sterilization treatment using chlorine is all that is needed at start up.
Untreated water should periodically be monitored for raw water parameters. Treated water should periodically be monitored for manganese, iron and hydrogen sulfide shortly before a regeneration and immediately after a regeneration to monitor how the filter system is functioning. Elevated treated water concentrations before regeneration may mean that the filter media reduction capacity has been exceeded. Take corrective actions as necessary.
Low pH or high pH are the most likely conditions leading to media destruction

ADVANTAGES
• Iron reduction over wide pH range
• Effective reduction of hydrogen sulfide in addition to iron and/or manganese
• No harmful effects from a chlorine feed
• Low attrition for long bed life
PHYSICAL PROPERTIES
• Bulk Density: 84 lbs./cu. ft.
• Effective Size: .56 mm
• Uniformity Coefficient: 1.51
• Moisture: <1%
• Particle Shape: Sub-Angular
• Color: Grey to black granulesCONDITIONS FOR OPERATION
• Water pH range: 6.2-8.5
• Maximum water temperature: 100°F/38°C
• Bed depth: 30 in.
• Freeboard: 40% of bed depth (min.)
• Service flow rate: 2-12 gpm/sq. Ft. Continuous
• Backwash flow rate: 12 gpm/sq. Ft. At 55°F, warmer waters require higher flow rates
• Free chlorine concentration less than .5 ppm

Filter-Ox™ is a highly effective filter media capable of reducing iron, manganese and hydrogen sulfide from water through oxidation and filtration. Soluble iron and manganese are oxidized and precipitated by contact with the catalytic coating on the Filter-Ox™ granules. The hydrogen sulfide is oxidized to an insoluble sulfur precipitate. Precipitates are then filtered and removed by backwashing.
Filter-Ox™ is an engineered media that utilizes a super high purity manganese dioxide coating bonded to a durable, lightweight silica substrate Manganese dioxide is a powerful oxidizer and Filter-Ox™ contains more manganese dioxide than other manganese based filter medias. Manufactured in the USA, Filter-Ox™ contains almost no fines and does not require long initial backwash times. A standard sterilization treatment using chlorine is all that is needed at start up.
Untreated water should periodically be monitored for raw water parameters. Treated water should periodically be monitored for manganese, iron and hydrogen sulfide shortly before a regeneration and immediately after a regeneration to monitor how the filter system is functioning. Elevated treated water concentrations before regeneration may mean that the filter media reduction capacity has been exceeded. Take corrective actions as necessary.
Low pH or high pH are the most likely conditions leading to media destruction.

METHODS OF REGENERATION AND REGENERATION REQUIREMENTS
• Continuous regeneration using chlorine feed or air are recommended
• Mg/l Cl2 (1x mg/l Fe) + (3x mg/l Mn)
• Air draw or air injection
• Use an injector size that is two sizes larger than a typical softener application
• Draw/slow rinse time greater than 50 minutes
• Down flow rinse (Fast Rinse) 4 minutes minimum
CATALYTIC OXIDATION (CO)
Catalytic Oxidation (CO) operation is recommended in applications where iron

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removal is the main objective in well waters with or without the presence of manganese. This method involves the feeding of a predetermined amount of chlorine (Cl2) or other strong oxidant directly to the raw water before the Filter-Ox™ Filter.
Chlorine should be fed at least 10-20 seconds upstream of the filter, or as far upstream of the filter as possible to insure adequate contact time. A free chlorine residual carried through the filter will maintain Filter-Ox™.
Filter

Item-Nr:	Description:
MCFOX028300	Filter-Ox™ manganese dioxide for iron-manganese removal-14,15 l=½ cu.ft l (bag price)

MTM

MTM Media for Iron Removal

Clack MTM® (14,15 l bag)
Description
Clack MTM® is a granular manganese dioxide filtering media used for reducing iron, manganese and hydrogen sulfide from drinking water. Its active surface coating oxidizes and precipitates soluble iron and manganese. Hydrogen sulfide is oxidized to sulfur. The precipitates are filtered out in the granular bed and removed by backwashing.

PHYSICAL PROPERTIES
Color: Dark brown
Bulk Density: 45-50 lbs./cu. ft.
Specific Gravity: 2.0 gm/cc
Effective Size: 0.43 mm
Uniformity Coefficient: 2.0
Mesh Size: 12 x 50

Item-Nr:	Description:
MCMTM028300	MTM- manganese dioxide for iron-manganese removal-bag 28.3 l (bag price)

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BIRM® REGULAR

BIRM® Media for Iron Removal

Birm® is an efficient and economical media for the reduction of dissolved iron and manganese compounds from raw water supplies. It may be used in either gravity fed or pressurized water treatment systems. Birm acts as an insoluble catalyst to enhance the reaction between dissolved oxygen (D.O.) and the iron compounds. In ground waters the dissolved iron is usually in the ferrous bicarbonate state due to the excess of free carbon dioxide and is not filterable. Birm, acting as a catalyst between the oxygen and the soluble iron compounds, enhances the oxidation reaction of Fe++ to Fe+++ and produces ferric hydroxide which precipitates and may be easily filtered. The physical characteristics of Birm provide an excellent filter media which is easily cleaned by backwashing to remove the precipitant. Birm is not consumed in the iron removal operation and therefore offers a tremendous economic advantage over many other iron removal methods. Other advantages of Birm include; long material life with relatively low attrition loss, a wide temperature performance range and extremely high removal efficiency. Negligible labor costs are involved because Birm does not require chemicals for regeneration, only periodic backwashing is required. When using Birm for iron removal, it is necessary that the water: contain no oil or hydrogen sulfide, organic matter not to exceed 4-5 ppm, the D.O. content equal at least 15% of the iron content with a pH of 6.8 or more. If the influent water has a pH of less that 6.8, neutralizing additives such as Clack Corosex®, Calcite or soda ash may be used prior to the Birm filter to raise the pH. A water having a low D.O. level may be pretreated by aeration. Additions of chemicals to influent or backwash water which contacts Birm media may inhibit iron or manganese removal or may break down or coat Birm media. Chlorination greatly reduces Birm's activity. High concentrations of chlorine compounds may deplete the catalytic coating. Polyphosphates are known to coat Birm and reduce Birm's ability to remove iron or manganese. Before adding any chemical to the influent or backwash water, the chemical's compatibility with Birm should be thoroughly tested.
Clack Birm may also be used for manganese reduction with the same dependability as iron removal. In these applications the water to be treated should have a pH of 8.0-9.0 for best results. If the water also contains iron, the pH should be below 8.5. High pH conditions may cause the formulation of colloidal iron which is very difficult to filter out. All other conditions remain the same for either manganese or iron removal.

ADVANTAGES : • Under the proper conditions, no chemicals to purchase for maintenance. Regeneration not required.
• Iron removal efficiency is extremely high.
• Negligible labor cost: only periodic backwashing required.
• Durable material with a long life and wide temperature range.
• Weighs only 35-40 lbs./cu. Ft. PHYSICAL PROPERTIES
• Color: Black • Bulk Density: 35-40 lbs./cu. Ft. • Mesh Size: 10 x 40
• Specific Gravity: 2.0 gm/cc • Effective Size: 0.48 mm
• Uniformity Coefficient: 2.7 CONDITIONS FOR OPERATION
• Alkalinity should be greater than two times the combined sulfate and chloride concentration. • Maximum water temp: 100oF/38oC
• Water pH range: 6.8-9.0 • Dissolved Oxygen (D.O.) content must be equal to at least 15% of the iron (or iron and manganese) content. • Bed depth: 30-36 in. • Freeboard: 50% of bed depth (min.)
• Backwash rate: 10-12 gpm/sq. Ft.•Backwash Bed Expansion: 20-40% of bed depth (min.) • Service flow rate: 3.5-5 gpm/sq. Ft. Intermittent flow rates and/or favorable local conditions may allow higher flow rates INFLUENT AND BACKWASH LIMITATIONS
• Free chlorine concentration less than 0.5 ppm
• Hydrogen Sulfide should be removed prior to contact with Birm media • Oil: None Present • Polyphosphates: None present

Item-Nr:	Description:
MCBIR028300	BIRM Catalitic iron remover 28,3 l bag (price per bag)

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Filter AG-Filter zeolite

Filter AG filter medium for turbidity removal

Clack Filter-Ag® has many outstanding advantages over the more common granular filter medias used for suspended solids reduction. Its fractured edges and irregular surface provides a high surface area and complex flow path for efficient removal of suspended matter throughout the filter bed, typically reducing suspended solids down to the 20-40 micron range. Filter-Ag's larger particle size creates
less pressure loss through the filter and allows deeper sediment penetration into the bed for higher sediment loading and longer filter runs. The large and irregular shape prevents the screening and caking
of sediment in the top several inches of the filter bed as happens in the typica sand filter, thus preventing a rapid buildup of headloss and blinding problems Filter-Ag's light weight means lower
backwash rates and better bed expansion to release trapped sediment and rinse the filter media during the backwash cycle. The combination of particle shape, size and density make it a good choice
where quality water filtration and water conservation are important.
Although not intended to be an iron reduction media, extensive field experience has shown Filter-Ag's rough and jagged surface to be very good at entrapping the fragile iron flock that forms after dissolved iron has been oxidized. Typical oxidation methods include
aeration, ozonation and chlorination. Substantial savings can be realized whe designing a system using Clack Filter-Ag.
Its low pressure drop, high service flow rates and high bed loadings combined with lower backwash rates allow economy in equipment downsizing and reduced pumping requirements. Its light weight
also saves on handling expense and shipping costs.
Clack Filter-Ag can be applied to systems designed for either pressure or gravity flow. Because of its unique density, Filter-Ag can also be used in multi media (graded density) filter designs allowing a more
flexible approach to difficult filtration problem

ADVANTAGES
• There is less pressure loss through a bed of Filter-Ag® than through most other filter medias • Light weight requires lower
backwash rates than those required for other filter medias
• High service rates result in lower equipment costs and a savings in space • High sediment reduction capacity
results in longer filter runs, with a substantial savings in backwash water and time out of service • Reduced shipping cost due to light weight/cu. ft. • Replacement of sand with Filter-Ag in existing installations may increase filter capacity 100% or more.
(Caution should be taken upon start-up that the lightweight Filter-Ag is not washed to drain.) PHYSICAL PROPERTIES
• Color: Light grey to near white • Bulk Density: 24-26 lbs./cu. ft.
• Specific Gravity: 2.25 gm/cc • Mesh Size: 10 x 34
• Effective Size: 0.67 mm • Uniformity Coefficient: 2.1 ±0.1
• Hardness: 6 (Mohs scale) CONDITIONS FOR OPERATION
• Water pH range: wide range • Maximum water temperature: 140°F/60°C • Bed depth: 24-36 in.• Freeboard: 50% of bed depth (min.)
• Service flow rate: 5 gpm/sq. ft.,although considerably higher rates are often used • Backwash flow rate: 8-10 gpm/sq. ft.
• Backwash bed expansion: 20-40% of bed depth • Upon installation allow bed to soak overnight before backwashing

Item-Nr:	Description:
MCFAGT028300	FILTER AG filtration media , 28,3 l bag (Bag price)

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Filter AG-Filter AG Plus zeolite

Filter AG - Filter AG Plus filter medium for turbidity removal

Clack Filter-Ag Plus is a unique natural ore called clinoptilolite that has many outstanding advantages over common granular filter sands and multimedia used for suspended solids reduction. Viewed under an electron scanning microscope, the granules reveal an angular shape, rough surface and microporous void spaces as small as 3 microns. This creates a surface area over 100 times greater than silica sand. The angularity of the granules and the tapered internal pore spaces allow for reduction of dirt, silt and organic matter suspended in water by bridging, straining and adhesion. The rough surface and internal porosity provide a high surface area for efficient reduction of suspended matter. Utilizing deep bed filtration can typically reduce suspended solids down to the 5 micron or less range. Filter-Ag Plus' structure typically creates less pressure loss through the filter and allows deeper sediment penetration into the bed for higher sediment loading and longer filter runs. The deep bed filtration capacity of Filter-Ag Plus prevents a rapid buildup of head loss and blinding problems that are associated with typical sand filters. The longer filter run times reduce backwash frequency, which provides conservation of water. This ideal combination of particle shape, texture and porosity make it a good choice where quality water filtration and water conservation are important.
Substantial savings can be realized when designing a system using Clack Filter-Ag Plus. Its low pressure drop, high service flow rates and high bed loadings combined with lower backwash frequency allow economy in equipment downsizing and reduced pumping requirements. Its low density also saves on handling expense and shipping costs. Clack Filter-Ag Plus can be applied to systems designed for either pressure or gravity flow. Because of its unique physical characteristics, Filter-Ag Plus can be used to replace.

ADVANTAGES
• Deep bed filtration results in superior water quality and reduces the load or downstream equipment.
• High sediment removal capacity results in longer filter runs, with a substantial savings in backwash water and time out of service.
• High service flow rates result in lower equipment costs and a savings in space.
• Reduced shipping cost due to lighter weight/cu.ft.
• Replacement of multimedia with Filter-Ag Plus in existing installations may increase filter capacity.
• Filter-Ag Plus is an all-natural, environmentally safe product.
PHYSICAL PROPERTIES
• Color: Light tan to near white • Dry Bulk Density: 50 lbs/cu.ft
• Specific Gravity: 2.2 g/cc • Mesh Size: 14x30
• Effective Size: 0.55mm • Uniformity Coefficient: 1.8
• Hardness: 4-5 (Mohs Scale)
CONDITIONS FOR OPERATION
• Water pH: Wide range • Max. Water Temp.: 140˚F/60˚C
• Bed Depth: 24-36 inches • Freeboard: 50% of bed depth
• Backwash Flow Rate: 15-20 gpm/sq.ft. • Backwash Bed Expansion: 30-40% of bed depth • Service Flow Rate: 12-20 gpm/sq.ft.
• Local conditions may require lower flow rates
• A gravel support bed is required
• Allow bed to saturate before initial backwash

Item-Nr:	Description:
MCFAGP028300	FILTER AG Plus filtration media , 28,3 l bag (bag price)

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ECOMIX®

ECOMIX® FILTER MEDIA

ECOMIX® FILTER MEDIA ECOMIX® is a scientifically grounded technology, confirmed by 6 patents and service world-wide since 1998. ECOMIX® works effectively in well water and municipal water within the allowable concentrations of iron and manganese, hardness and natural organic matter. ECOMIX® is a multi-component, complex filter material for softening. and removing major contaminants from well or municipal water.
ECOMIX® is a scientifically grounded technology, confirmed by 6 patents and service world-wide since 1998. ECOMIX® consists of five ingredients, including two patented materials. SIMPLE SOLUTION FOR 5 PROBLEMS: hardness, iron, manganese,natural organic matter, ammonium

ECOMIX® P For well or tap water with low organic matter. Requires stable quality of water
ECOMIX® A For well or tap water with moderate organic matter.Handles seasonal variations in water composition.
ECOMIX® C For well or tap water with high organic matter.Handles seasonal variations in water composition even with significant changes in raw water quality.

Raw water quality requirements and efficiency of purification
Hardness, ppm CaCO3 750 750 750 Iron, mg/L 15 15 15
Manganese, mg/L 3 3 3 Chemical Oxygen Demand, mg/L O2 3 20 (Reduces by 50%) 20 (Reduces by 80%) Ammonium, mg/L 4 4 4
Service life, years 3 5 5 ECOMIX® is certified in EU for compliance with LFGB requirements for foodcontacting materials by TÜV SÜD.Meets the requirements: LFGB, ResAP(2004)3, EU Guideline 2002/72/EG The quality of ECOMIX® is confirmed by the Gold Seal certificate (USA), which proves its safety in contact with drinking water.
ECOMIX® is certified in compliance with NSF/ANSI standards:
NSF/ANSI 61 Drinking Water System Components – Health Effects
NSF/ANSI 44 Residential Cation Exchange Water Softeners
NSF/ANSI 372 Drinking Water System Components – Lead Content

Item-Nr:	Description:
MCECOMIXA012	ECOMIX® A Filter medium for the treatment of well water and tap water, 12 l bag
MCECOMIXA025	ECOMIX® A Filter medium for the treatment of well water and tap water, 25 l bag
MCECOMIXC012	ECOMIX® C media for treatment of well water with high organic matter content, 12 l bag
MCECOMIXC025	ECOMIX® C media for treatment of well water with high organic matter content, 25 l bag
MCECOMIXP012	ECOMIX® P Filter medium for the treatment of well water and tap water, 12 l bag
MCECOMIXP025	ECOMIX® P Filter medium for the treatment of well water and tap water, 25 l bag

Celtis Water Srl SP33 Km 0,230 Loc.Bettolino Nord, I-25030 Brandico (Bs) -Italy-Tel +39 030 2056433 Fax +39 030 2053465 e-mail: info@celtis-water.com

Quarzite

Quartz gravel

Item-Nr:	Description:
MCQU0103S25	Quartz gravel granulometry 1x3 mm- 25 Kg bags -price per Kg
MCQU0305S25	Quartz gravel granulometry 3x5 mm- 25 Kg bags -price per Kg
MCQU0508S25	Quartz gravel granulometry 5x8 mm- 25 Kg bags -price per Kg
MCQUX4x9S25	Quartz gravel granulometry 0,4x0,9 mm- 25 Kg bags -price per Kg

Quarzo sferico

Spherical quartz gravel

Item-Nr:	Description:
MCQS0103S25	Spherical quartz gravel granulometry 1x3 mm- (25 Kg bag) price per Kg
MCQS0203S25	Spherical quartz gravel granulometry 2x3 mm- (25 Kg bag) price per Kg
MCQS0305S25	Spherical quartz gravel granulometry 3x5 mm- (25 Kg bag) price per Kg
MCQS0508S25	Spherical quartz gravel granulometry 5x8 mm- (25 Kg bag) price per Kg
MCQSx4x9S25	Spherical quartz gravel granulometry 0,4x0,9 mm (25 Kg bag) price per Kg

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Polifosfato in cristalli

Polyphosphate crystals 25 Kg bag

Item-Nr:	Description:
MC200250PF	Polyphosphate crystals - 25 Kg packaging (Price per Kg)

Sale per addolcitori

Salt for water softening

Item-Nr:	Description:
MC400003SS	Calciosine - Premium Quality - Salt in rock salt crystals for softening BAG OF 25 KG (Price per ton)

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