

# ION EXCHANGE RESINS, FILTER MEDIA







#### Pure Resin PC002AGL

- Gel Strong Acid Cation Exchange Resin Silver Impregnated;
- Light coloured;
  Gel type (styrene sulphonate) low silver-impregnated cation resin supplied in the sodium form as moist, tough uniform spherical beads;
- Well suited for industrial, commercial or residential softening applications;
- High capacity and good physical stability;
  Shipped in 25 liter bags.

Ref.	Description	Fam.	Subfa m.	Disp. Stock	
RA300AGL	STRONG CATION GEL SILVER IMPREGNATED PURE RESIN PC002 (Ag) II	65	300	OK	

Polymer Matrix Struc	ture		Polystyrene crosslinked with DVB			
Functional Group			R-(SO3)-M+			
Ionic Form, as shippe	ed		Sodium (Na+) / Silve	r (Ag+)		
Physical Form and Ap	ppearance		Clear Spherical Bead	s		
Sphericity			95% min			
Screen Size Range -	U.S. Standard Screen		16 ÷ 50 mesh, wet			
Particle Size Range			+1,2 mm < 5%, - 0,3	8 mm < 1%		
Uniformity Coefficien	nt		1,6 max			
Water Retention, Na-	+ form		45 ÷ 55%			
Water Retention, H+	form		50 ÷ 60%			
Swelling Na+ $\rightarrow$ H+			10% max			
Shipping Weight, Na	+ / Ag+ form		830 g/l (52 lbs/cu.ft,	approx.)		
Total Exchange Capa	acity, Na+ form		1,9 eq/l min.			
Total Exchange Capa	acity, H+ form		1,8 eq/l min.			
pH Range			0 ÷ 14			
	Conditions					
Suggested Operating			120°C (248°F)			
Maximum Temperatu						
Maximum Temperatu			100°C (212°F)			
Minimum Bed Depth			0,6 m (24")			
Backwash expansion			25 ÷ 50% bed expansion			
Regeneration			8 ÷ 20% NaCl or saturated salt water			
Regenerant Concent	ration					
Flow Rate			2 ÷ 4 BV/h (0,25 ÷ 0	,50 gpm/cu.π)		
Contact time	D - h -		At least 30 Minutes	Elso Dala		
Displacement Rinse			Same as Regenerant			
Displacement Rinse	Volume		Same as Service Flow			
Fast Rinse Rate			Same as Service Flow Rate			
Fast Rinse Volume			3 ÷ 4 BV (22,5 ÷ 30	· · · · · ·		
Service Flow Rate			10 ÷ 50 BV/h (1,25 ÷	- 6,25 gpm/cu.ft)		
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight	
		1		1		

l	Certificates	Manufacturer	Sectors
	DM174-2004	Pure Resin	Domestic, Commercial, Industrial







#### Pure Resin PC002AG

- Gel Strong Acid Cation Exchange Resin Silver Impregnated;
- Light coloured;
  Gel type (styrene sulphonate) silver impregnated cation resin supplied in the sodium form as moist, tough uniform spherical beads;
- Well suited for industrial, commercial or residential softening applications;
- High capacity and good physical stability;
  Shipped in 25 liter bags.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA300AG	STRONG CATION GEL SILVER IMPREGNATED PURE RESIN PC002 (Ag)	65	300	ОК	

Polymer Matrix Struc	ture		Polystyrene crossli	Polystyrene crosslinked with DVB			
Functional Group			R-(SO3)-M+	R-(SO3)-M+			
Ionic Form, as shippe	ed		Sodium (Na+) / Sil	ver (Ag+)			
Physical Form and A	opearance		Clear Spherical Be	ads			
Sphericity			95% min				
Screen Size Range -	U.S. Standard Scre	en	16 ÷ 50 mesh, we	t			
Particle Size Range			+1,2 mm < 5%, - 0	),3 mm < 1%			
Uniformity Coefficien	ıt		1,6 max				
Water Retention, Na	+ form		45 ÷ 55%				
Water Retention, H+	form		50 ÷ 60%				
Swelling Na+ $\rightarrow$ H+			10% max				
Shipping Weight, Na	+ / Ag+ form		830 g/l (52 lbs/cu.f	t, approx.)			
Total Exchange Capa	acity, Na+ form		1,9 eq/l min.				
Total Exchange Capa	city, H+ form		1,8 eq/l min.	1,8 eq/l min.			
pH Range			0 ÷ 14				
Suggested Operating Conditions							
Maximum Temperati	ure Na+ form		120°C (248°F)				
Maximum Temperati	ure H+ form		100°C (212°F)				
Minimum Bed Depth			0,6 m (24")				
Backwash expansion	I		25 ÷ 50% bed expansion				
Regeneration							
Regenerant Concent	ration		8 ÷ 20% NaCl or saturated salt water				
Flow Rate			2 ÷ 4 BV/h (0,25 ÷	2 ÷ 4 BV/h (0,25 ÷ 0,50 gpm/cu.ft)			
Contact time			At least 30 Minutes	At least 30 Minutes			
Displacement Rinse	Rate		Same as Regenera	Same as Regenerant Flow Rate			
Displacement Rinse	Volume		Same as Service F	Same as Service Flow Rate			
Fast Rinse Rate			Same as Service F	Same as Service Flow Rate			
Fast Rinse Volume			3 ÷ 4 BV (22,5 ÷ 3	0 gallons/cu.ft)			
Service Flow Rate			10 ÷ 50 BV/h (1,25	5 ÷ 6,25 gpm/cu.ft)			
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight		

Certificates	Manufacturer	Sectors
DM174-2004	Pure Resin	Domestic, Commercial, Industrial







#### Pure Resin PC003AG

- Gel Strong Acid Cation Exchange Resin Silver Impregnated;
- Light coloured;
  Gel type (styrene sulphonate) silver impregnated cation resin supplied in the sodium form as moist, tough uniform spherical beads;
- Well suited for industrial, commercial and residential softening applications;
- High capacity and good physical stability;
  Shipped in 25 liter bags.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA310AG	STRONG CATION GEL SILVER IMPREGNATED PURE RESIN PC003 (Ag) HIGH CAPACITY	65	300	ок	

Polymer Matrix Struc	ture		Polystyrene crosslinked with 7% DVB			
Functional Group			R-(SO3)-M+			
Ionic Form, as shippe	d		Sodium (Na+) / Silve	r (Ag+)		
Physical Form and Ap	opearance		Clear Spherical Bead	s		
Sphericity			95% min			
Screen Size Range - I	U.S. Standard Screen		16 ÷ 50 mesh, wet			
Particle Size Range			+1,2 mm < 5%, - 0,3	5 mm < 1%		
Uniformity Coefficien	t		1,6 max			
Water Retention, Na-	+ form		45 ÷ 55%			
Water Retention, H+	form		50 ÷ 60%			
Swelling Na+ $\rightarrow$ H+			10% max			
Shipping Weight, Na-	+ / Ag+ form		850 g/l (53 lbs/cu.ft,	approx.)		
Total Exchange Capa	city, Na+ form		2,0 eq/l min.			
Total Exchange Capa	city, H+ form		1,9 eq/l min.			
pH Range			0 ÷ 14			
Suggested Operating Conditions						
Maximum Temperatu			120°C (248°F)			
Maximum Temperatu	Ire H+ form		100°C (212°F)			
Minimum Bed Depth			0,6 m (24")			
Backwash expansion			25 ÷ 50% bed expansion			
Regeneration			0. · 200/ NaCl as estimated as truster			
Regenerant Concentr	ration		8 ÷ 20% NaCl or saturated salt water			
Flow Rate			2 ÷ 4 BV/h (0,25 ÷ 0,50 gpm/cu.ft)			
Contact time			At least 30 Minutes			
Displacement Rinse F			Same as Regenerant			
Displacement Rinse \	/olume		Same as Service Flov			
Fast Rinse Rate			Same as Service Flow Rate			
Fast Rinse Volume			3 ÷ 4 BV (22,5 ÷ 30 gallons/cu.ft)			
Service Flow Rate			10 ÷ 50 BV/h (1,25 ÷	- 6,25 gpm/cu.ft)		
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight	

Certificates	Manufacturer	Sectors
DM174-2004	Pure Resin	Domestic, Commercial, Industrial







- Gel Strong Acid Cation Exchange Resin;
- Get strong keid eutor Exchange nesht,
  Light coloured;
  Get type sulfonated polystyrene cation resin supplied in the sodium form as moist, tough uniform spherical beads.
  Well suited for industrial, commercial or residential softening applications;
  High capacity and good physical stability;
  Shipped in 25 liter bags.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA300	STRONG CATION GEL PURE RESIN PC002 (Na)	65	300	ОК	
RA300A	STRONG CATION GEL PURE RESIN PC002 (Na) BIG BAG1200 LT	65	300	NO	

Polymer Matrix Stru	cture		Polystyrene crossl	inked with 7% DVB			
Functional Group			R-(SO3)-M+				
Ionic Form, as shipped			Sodium (Na+)				
Physical Form and A	ppearance		Clear Spherical Be	ads			
Sphericity			95% min				
Screen Size Range -	U.S. Standard Scre	en	16 ÷ 50 mesh, we	t			
Particle Size Range			+1,2 mm < 5%, -	0,3 mm < 1%			
Uniformity Coefficien	nt		1,6 max				
Water Retention, Na	+ form		45 ÷ 50%				
Swelling Na+ $\rightarrow$ H+			10% max				
Ca2+→ Na+			5% max				
Shipping Weight, Na	+ form		770 ÷ 870 g/l (50	lbs/cu.ft, approx.)			
Total Exchange Cap	acity, Na+ form		1,9 eq/l min.	1,9 eq/l min.			
pH Range			0 ÷ 14	0 ÷ 14			
Suggested Operatin	a Conditions						
Maximum Temperat			120°C (248°E)	120°C (248°F)			
Maximum Temperat				100°C (212°F)			
Minimum Bed Depth				0,6 m (24")			
Backwash expansion			,	25 ÷ 50% bed expansion			
Regeneration							
Regenerant Concent	ration		8 ÷ 20% NaCl or saturated salt water				
Flow Rate			2 ÷ 4 BV/h (0,25 ÷ 0,50 gpm/cu.ft)				
Contact time			At least 30 Minutes				
Displacement Rinse	Rate		Same as Regenera	Same as Regenerant Flow Rate			
Displacement Rinse	Volume		Same as Service F	Same as Service Flow Rate			
Fast Rinse Rate			Same as Service F	Same as Service Flow Rate			
Fast Rinse Volume			3 ÷ 4 BV (22,5 ÷ 3	3 ÷ 4 BV (22,5 ÷ 30 gallons/cu.ft)			
Service Flow Rate				10 ÷ 50 BV/h (1,25 ÷ 6,25 gpm/cu.ft)			
	Ì	1		1	1		
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight		

	Certificates	Manufacturer	Sectors	
	DM174-2004 ACS NSF44 NSF61	Pure Resin	Domestic, Commercial, Industrial	





- Gel Strong Acid Cation Exchange Resin;
- High capacity premium grade bead form, conventional gel polystyrene sulphonate cation exchange resin supplied in the sodium
  or hydrogen form;
- Intended for use in all water softening, dealcalisation, deionization and chemical processing applications, such as the following: • In H form (PC003H), can be used in multiple and mixed bed demineralizers with strong base;
- Anion exchangers such as Pure PA101, PA102 and PA103 in OH- form.
  Well suited for industrial, commercial or residential softening applications because of its high capacity and good physical stability;

Ref	Description			Fam.	Subfa	Disp.	
			/····		m.	Stock	
RA310	STRONG CATION G	EL PURE RESIN PC003	(Na) HIGH CAPACITY	65	300	ОК	
Polymer Matrix Struc	ture		Clear Spherical Beads				
Functional Group			R-(SO3) <sup>-</sup> M+				
Ionic Form, as shippe	ed		Na+ / H+				
Physical Form and Appearance			Clear Spherical Beads				
Sphericity			95% min				
Screen Size Range U	S Standard Screen		16 ÷ 50 mesh, wet				
Particle Size Range			+1,2 mm < 5%, - 0,3	mm < 1%			
Uniformity Coefficien	t		1,6 max				
Water Retention, Na-	+ form - H form		43 ÷ 48% - 50 ÷ 56%				
Swelling Na+ $\rightarrow$ H+			10% max				
Swelling Ca²+→Na+			5% max				
Shipping Weight, Na-	+ form		780 ÷ 880 g/l (51 lbs/cu.ft, approx.)				
Shipping Weight, Ca <sup>2</sup>	²+→Na+		770 ÷ 870 g/l (50 lbs/cu.ft, approx.)				
Total Exchange Capa	acity, Na+ form		2,0 eq/l min.				
Total Exchange Capa	acity, H+ form		1,9 eq/l min.				
pH Range			0 ÷ 14				
Suggested Operating	J Conditions						
Suggested Operating Maximum Temperatu			150°C (300°F) max				
	ure Na form		150°C (300°F) max 100°C (212°F) max				
Maximum Temperatu Maximum Temperatu	ure Na form ure H form						
Maximum Temperatu Maximum Temperatu	ure Na form ure H form		100°C (212°F) max	ion			
Maximum Temperatu Maximum Temperatu Minimum Bed Depth	ure Na form ure H form		100°C (212°F) max 0,6 m (24")	ion			
Maximum Temperatu Maximum Temperatu Minimum Bed Depth Backwash Expansion	ure Na form ure H form		100°C (212°F) max 0,6 m (24")	ion			
Maximum Temperatu Maximum Temperatu Minimum Bed Depth Backwash Expansion Regeneration Regenerant Concenti	ure Na form ure H form	· · · · · · · · · · · · · · · · · · ·	100°C (212°F) max 0,6 m (24") 25 ÷ 50% Bed Expans				
Maximum Temperatu Maximum Temperatu Minimum Bed Depth Backwash Expansion Regeneration Regenerant Concentu	ure Na form ure H form ration- Sodium Cycle		100°C (212°F) max 0,6 m (24") 25 ÷ 50% Bed Expans 8 ÷ 20% NaCl	2504	ft)		
Maximum Temperatu Maximum Temperatu Minimum Bed Depth Backwash Expansion Regeneration Regenerant Concentu	ure Na form ure H form ration- Sodium Cycle ration- Hydrogen Cycle	· · · · · · · · · · · · · · · · · · ·	100°C (212°F) max 0,6 m (24") 25 ÷ 50% Bed Expans 8 ÷ 20% NaCl 5 ÷ 10% HCl, 2-8% H2	2SO4 90 gpm/cu.1	ft)		
Maximum Temperatu Maximum Temperatu Minimum Bed Depth Backwash Expansion Regeneration Regenerant Concentu Regenerant Concentu Flow Rate	ure Na form ure H form ration- Sodium Cycle ration- Hydrogen Cycle Rate	· · · · · · · · · · · · · · · · · · ·	100°C (212°F) max 0,6 m (24") 25 ÷ 50% Bed Expans 8 ÷ 20% NaCl 5 ÷ 10% HCl, 2-8% H2 2 ÷ 7 BV/h (0,25 ÷ 0,5	2SO4 90 gpm/cu.1 Flow Rate			
Maximum Temperatu Maximum Temperatu Minimum Bed Depth Backwash Expansion Regeneration Regenerant Concentu Regenerant Concentu Flow Rate Displacement Rinse F	ure Na form ure H form ration- Sodium Cycle ration- Hydrogen Cycle Rate	· · · · · · · · · · · · · · · · · · ·	100°C (212°F) max 0,6 m (24") 25 ÷ 50% Bed Expans 8 ÷ 20% NaCl 5 ÷ 10% HCl, 2-8% H2 2 ÷ 7 BV/h (0,25 ÷ 0,9 Same as Regenerate F	2SO4 90 gpm/cu. Flow Rate gallons/cu			
Maximum Temperatu Maximum Temperatu Minimum Bed Depth Backwash Expansion Regeneration Regenerant Concentu Regenerant Concentu Flow Rate Displacement Rinse M	ure Na form ure H form ration- Sodium Cycle ration- Hydrogen Cycle Rate		100°C (212°F) max 0,6 m (24") 25 ÷ 50% Bed Expans 8 ÷ 20% NaCl 5 ÷ 10% HCl, 2-8% H2 2 ÷ 7 BV/h (0,25 ÷ 0,9 Same as Regenerate F 1,4 ÷ 2,0 BV (10 ÷ 15	2SO4 90 gpm/cu. Flow Rate gallons/cu Rate			
Maximum Temperatu Maximum Temperatu Minimum Bed Depth Backwash Expansion Regeneration Regenerant Concentu Regenerant Concentu Flow Rate Displacement Rinse M Displacement Rinse M Fast Rinse Rate	ure Na form ure H form ration- Sodium Cycle ration- Hydrogen Cycle Rate	2	100°C (212°F) max 0,6 m (24") 25 ÷ 50% Bed Expans 8 ÷ 20% NaCl 5 ÷ 10% HCl, 2-8% H2 2 ÷ 7 BV/h (0,25 ÷ 0,9 Same as Regenerate F 1,4 ÷ 2,0 BV (10 ÷ 15 Same as Service Flow	2504 90 gpm/cu. Flow Rate gallons/cu Rate lons/cu.ft)	.ft)		
Maximum Temperatu Maximum Temperatu Minimum Bed Depth Backwash Expansion Regeneration Regenerant Concentu Regenerant Concentu Flow Rate Displacement Rinse M Displacement Rinse M Fast Rinse Rate Fast Rinse Volume	ure Na form ure H form ration- Sodium Cycle ration- Hydrogen Cycle Rate	Box: Weight	100°C (212°F) max 0,6 m (24") 25 ÷ 50% Bed Expans 8 ÷ 20% NaCl 5 ÷ 10% HCl, 2-8% H2 2 ÷ 7 BV/h (0,25 ÷ 0,9 Same as Regenerate F 1,4 ÷ 2,0 BV (10 ÷ 15) Same as Service Flow 4 ÷ 8 BV (30 ÷ 60 gall 10 ÷ 50 BV/h (1,25 ÷	2504 90 gpm/cu. Flow Rate gallons/cu Rate lons/cu.ft)	.ft) cu.ft)	Pallet: Weight	
Maximum Temperatu Maximum Temperatu Minimum Bed Depth Backwash Expansion Regeneration Regenerant Concentu Flow Rate Displacement Rinse M Displacement Rinse M Fast Rinse Rate Fast Rinse Volume Service Flow Rate	ure Na form ure H form ration- Sodium Cycle ration- Hydrogen Cycle Rate Volume		100°C (212°F) max 0,6 m (24") 25 ÷ 50% Bed Expans 8 ÷ 20% NaCl 5 ÷ 10% HCl, 2-8% H2 2 ÷ 7 BV/h (0,25 ÷ 0,5 Same as Regenerate F 1,4 ÷ 2,0 BV (10 ÷ 15 Same as Service Flow 4 ÷ 8 BV (30 ÷ 60 gall 10 ÷ 50 BV/h (1,25 ÷ Pallet: WxLxH	2504 90 gpm/cu. Flow Rate gallons/cu Rate lons/cu.ft) 6,25 gpm/c	.ft) cu.ft)	Pallet: Weight	





#### Pure Resin PC003UN-NA

- Gel Strong Acid Cation Exchange Resin with high uniformity coefficient;
- High capacity premium grade bead form, conventional gel polystyrene sulphonate cation exchange resin supplied in the sodium or hydrogen form;
- Intended for use in all water softening, dealcalisation, deionization and chemical processing applications, such as the following: In H form (PC003HUN), can be used in multiple and mixed bed demineralizers with strong base;
   Anion exchangers such as Pure PA101, PA102 and PA103 in OH- form.
   Well suited for industrial, commercial or residential softening applications because of its high capacity and good physical applications because of its high capacity and good physical applications.

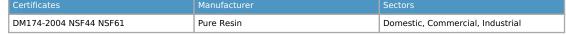
  - stability;

• Shipped in 25 liter bags.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA312	STRONG CATION GEL PURE RESIN PC003UN-Na	65	300	ОК	

Polymer Matrix Structure	Polystyrene crosslinked with 8% DVB
Functional Group	R-(SO3) <sup>-</sup> M+
Ionic Form, as shipped	Na+
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min
Screen Size Range US Standard Screen	25 ÷ 35 mesh, wet
Particle Size Range	0,5 ÷ 0,71 mm ≥ 95%
Uniformity Coefficient	1,15 max
Water Retention, Na+ form -H form	43 ÷ 48% - 47 ÷ 54% i
Swelling Na+ $\rightarrow$ H+	10% max
Swelling Ca <sup>2</sup> +→Na+	5% max
Shipping Weight, Na+ form	780 ÷ 880 g/l (51 lbs/cu.ft, approx.)
Shipping Weight, H form	770 ÷ 870 g/l (50 lbs/cu.ft, approx.)
Total Exchange Capacity, Na+ form	2,0 eq/l min.
Total Exchange Capacity, H form	1,9 eq/l min.
pH Range	0 ÷ 14

Suggested Operating	g Conditions					
Maximum Temperatu	ure Na+		150°C (300°F) max			
Maximum Temperatu	ure H+		100°C (212°F) max			
Minimum Bed Depth			0,6 m (24")			
Backwash Rate			25 ÷ 50% Bed Expan	sion		
Regeneration						
Regenerant Concent	ration- Sodium Cycle		8 ÷ 20% NaCl			
Regenerant Concent	ration- Hydrogen Cycle	2	5 ÷ 10% HCl, 2-8% H2SO4			
Flow Rate			2 ÷ 7 BV/h (0,25 ÷ 0,90 gpm/cu.ft)			
Displacement Rinse I	Rate		Same as Regenerate Flow Rate			
Displacement Rinse	Volume		1,4 ÷ 2,0 BV (10 ÷ 15 gallons/cu.ft)			
Fast Rinse Rate			Same as Service Flow Rate			
Service Flow Rate			4 ÷ 8 BV (30 ÷ 60 gallons/cu.ft)			
Service Flow Rate			10 ÷ 50 BV/h (1,25 ÷ 6,25 gpm/cu.ft)			
Box: WxLxH Box: Q.ty Box: Weight			Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight	
Certificates		Manufacturer		Sectors		









#### Pure Resin PC100NA

- Macroporous Strong Acid Cation Exchange Resin;
- Macroporous poly (styrene sulphonate) cation exchange resin with excellent resistance to both osmotic and thermal shock;
  Supplied as spherical beads;
  Used for water softening with high level of DVB;

- Also widely used in mixed bed demineralizers where high hydraulic demands exist and high resistance to mechanical thermal
- and oxidative stresses are required, such as condensate polishing, chemical processing, hydrometallurgy, sugar treatment;
  Shipped in 25 liter bags.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA318	STRONG CATION MACROPOROUS PURE RESIN PC100 (Na)	65	300	ОК	

Typical physical and chemical characteristics	
Structure of the polymer matrix	Polystyrene with 8% of DVB
Functional Group	R-(SO3) <sup>-</sup> M
Ionic Form, as shipped	Na+
Physical Form and Appearance	Spherical clear grains
Sphericity	95% minimum
Screen Size Range US Standard Screen	16 ÷ 50 mesh, humid
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 maximum
Water Retention	45 ÷ 55%
Swelling Na+ $\rightarrow$ H+	10% maximum
Shipping Weight	760 ÷ 830 g/l (50 lbs/cu.ft, approx.)
Total exchange capacity	1,8 eq/l min
pH Range	0 ÷ 14

Suggested Operating Conditions	
Maximum Temperature	150ºC (300ºF) max
Minimum Bed Depth	0,6 m (24")
Backwash Rate	2 ÷ 7 BV/h (0,25 ÷ 0,90 gpm/cu.ft)
Regenerant Concentration	8 ÷ 20% NaCl
Regeneration Flow Rate	2 ÷ 7 BV/h (0,25 ÷ 0,90 gpm/cu.ft)
Contact Time	At least 20 Minutes
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	1,4 ÷ 2,0 BV (10 ÷ 15 galloni/cu.ft)
Fast Rinse Rate	Same as service flow rate
Fast Rinse Volume	4 ÷ 8 BV (30 ÷ 60 gallons/cu.ft)
Service Flow Rate	10 ÷ 50 BV/h (1,25 ÷ 6,25 gpm/cu.ft)

Box: LxPxH	Box: Q.tà	Box: Peso	Pallet: LxPxH	Pallet: Q.tà	Pallet: Peso
Certificates		Manufacturer		Sectors	
DM174-2004		Pure Resin	n Industrial		







### Pure Resin PC100H

- Macroporous Strong Acid Cation Exchange Resin;
- Macroporous poly (styrene sulphonate) cation exchange resin with excellent resistance to both osmotic and thermal shock;
  Supplied as spherical beads;
  Used for water softening with high level of DVB;

- Also widely used in mixed bed demineralizers where high hydraulic demands exist and high resistance to mechanical thermal and oxidative stresses are required, such as condensate polishing, chemical processing, hydrometallurgy, sugar treatment; • Shipped in 25 liter bags.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA320	STRONG CATION MACROPOROUS PURE RESIN PC100 (H)	65	300	ОК	

Polymer Matrix Structure	Polystyrene crosslinked with 8% DVB
Functional Group	R-(SO3) <sup>-</sup> M+
Ionic Form, as shipped	H+
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max
Water Retention	50 ÷ 60%
Swelling Na+ $\rightarrow$ H+	10% max
Shipping Weight, Na+ form	760 ÷ 830 g/l (50 lbs/cu.ft, approx.)
Total Exchange Capacity	1,7 eq/l min.
pH Range	0 ÷ 14
Suggested Operating Conditions	
Maximum Temperature	120ºC (248ºF) max
· ·	
Minimum Bed Depth	0,6 m (24")
Backwash Rate	2 ÷ 7 BV/h (0,25 ÷ 0,90 gpm/cu.ft)
Regenerant Concentration	5 ÷ 10% HCl, 2 ÷ 8% H2SO4
Regeneration Flow Rate	2 ÷ 7 BV/h (0,25 ÷ 0,90 gpm/cu.ft)
Contact Time	At least 20 Minutes
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	1,4 ÷ 2,0 BV (10 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	4 ÷ 8 BV (30 ÷ 60 gallons/cu.ft)

Fast Rinse Volume	4 ÷ 8 BV (30 ÷ 60 gallons/cu.ft)
Service Flow Rate	10 ÷ 50 BV/h (1,25 ÷ 6,25 gpm/cu.ft)

	Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight
Certificates		Manufacturer		Sectors		

L	Certificates	Manufacturer	Sectors	
l		Pure Resin	Industrial	





# Pure Resin PC200FD

- Poly-acrylic Macroporous Weak Acid Cation Exchange Resin;
- Supplied in the hydrogen (H+) form;
  In H cycle is used for dealcalisation, deionization and chemical processing applications;
  In sodium cycle is used in applications such as softening and heavy metal cations removal. This requires a two stage regeneration process using a strong acid first and then a neutralization rinse to put the resin into the sodium form and is especially effective in high solids softening applications; • Shipped in 25 liter bags.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA330	WEAK CATION MACROPOROUS PURE RESIN PC200FD	65	300	ОК	

Polymer Matrix Structure	Poly-acrylic
Functional Group	R-(COOH) <sup>-</sup>
Ionic Form, as shipped	H+
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max
Water Retention, H+ form	45 ÷ 50%
Swelling Na+ $\rightarrow$ H+	65% max
Shipping Weight, H+ form	720 ÷ 800 g/l (46 lbs/cu.ft, approx.)
Total Exchange Capacity, H+ form	4 eq/l min.
pH Range	4 ÷ 14
Suggested Operating Conditions	
Maximum Temperature, H+ form	120ºC (248ºF) max
Minimum Bed Depth	0,8 m (30")
Backwash Rate	50 ÷ 75% Bed Expansion
Regeneration, Hydrogen Cycle	5 ÷ 10% HCl, 0,5 ÷ 1% H2SO4
Flow Rate	2 ÷ 7 BV/h 8 ÷ 20 gpm/cu.ft)
Contact Time	At least 30 Minutes
Displacement Rinse Rate	1,4 ÷ 2 BV (10 ÷ 15 gallons/cu.ft)
Displacement Rinse Volume	1,4 ÷ 2 BV (10 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	16 ÷ 40 BV/h (2 ÷ 5 gpm/cu.ft)
Service Flow Rate	16 ÷ 40 BV/h (2 ÷ 5 gpm/cu.ft)

Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight
Contificator		Manufacturar		Castars	

Certificates	Manufacturer	Sectors
DM174-2004	Pure Resin	Commercial, Industrial





#### PC200FDK PURE RESIN

- Poly-acrylic Macroporous Weak Acid Cation Exchange Resin;
- Supplied in the hydrogen (H+) form and buffered K+;
  In H cycle is used for dealcalisation, deionization and chemical processing applications;
  In sodium cycle is used in applications such as softening and heavy metal cations removal. This requires a two stage regeneration process using a strong acid first and then a neutralization rinse to put the resin into the sodium form and is especially effective in high solids softening applications; • Shipped in 25 liter bags.

Ref.	Description	Fam.	Subfa m.	Disp. Stock	
RA332	WEAK CATION MACROPOROUS PURE RESIN PC200FDK	65	300	ОК	

Polymer Matrix Structure	Poly-acrylic
Functional Group	R-(COOH) <sup>−</sup>
Ionic Form, as shipped	70% H+ / 30% K+
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max
Water Retention, H+ form	45 ÷ 50%
Swelling Na+ $\rightarrow$ H+	65% max
Shipping Weight, H+ form	720 ÷ 800 g/l (46 lbs/cu.ft, approx.)
Total Exchange Capacity, H+ form	4 eq/l min.
pH Range	4 ÷ 14
Suggested Operating Conditions	
Maximum Temperature, H+ form	120ºC (248ºF) max
Minimum Bed Depth	0,8 m (30")
Backwash Rate	50 ÷ 75% Bed Expansion
Regeneration, Hydrogen Cycle	5 ÷ 10% HCl, 0,5 ÷ 1% H2SO4
Flow Rate	2 ÷ 7 BV/h 8 ÷ 20 gpm/cu.ft)
Contact Time	At least 30 Minutes
Displacement Rinse Rate	1,4 ÷ 2 BV (10 ÷ 15 gallons/cu.ft)
Displacement Rinse Volume	1,4 ÷ 2 BV (10 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	16 ÷ 40 BV/h (2 ÷ 5 gpm/cu.ft)
Service Flow Rate	16 ÷ 40 BV/h (2 ÷ 5 gpm/cu.ft)

		Maria Carlo and		Castan		
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight	

Certificates	Manufacturei	Jectors
DM174-2004	Pure Resin	Commercial, Industrial







#### Pure Resin PA103OH

- Gel Strong Base Anion Exchange Resin;

- It is a Type II, gel strong base Anion Exchange Resin,
  It is a Type II, gel strong-base anion exchange resin, with high capacity and excellent regeneration efficiency;
  Supplied as spherical beads in the hydroxyl form;
  It removes all ions including silica and CO2, anyway, it operates best on waters having a high percentage of strong acids (FMA);
  Intended for use in all type of dealcalisation, demineralization, deionization and chemical processing applications;

Ref	Description	Description		Subfa m.	Disp. Stock		
RA340	STRONG ANION GEL TYPE II	STRONG ANION GEL TYPE II PURE RESIN PA103 ( OH )		300	ок		
Polymer Matrix	x Structure	Polystyrene crosslin	ked with div	inylbenzei	ne		
Functional Gro	oup	R-(SO3) <sup>−</sup> M+					
Ionic Form, as shipped		Hydroxyl (OH-)					
Physical Form and Appearance		Clear Spherical Bead	Clear Spherical Beads				
Sphericity		95% min	95% min				
Screen Size Range US Standard Screen		16 ÷ 50 mesh, wet	16 ÷ 50 mesh, wet				
Particle Size R	ange	+1,2 mm < 5%, - 0,	+1,2 mm < 5%, - 0,3 mm < 1%				
Uniformity Coe	efficient	1,6 max	1,6 max				
Water Retentio	on, Cl- form	45 ÷ 50%	45 ÷ 50%				
Swelling Cl- →	OH-	15% max	15% max				
Weight, Cl- for	rm	680 ÷ 760 g/l (44 lb	680 ÷ 760 g/l (44 lbs/cu.ft, approx.)				
Total Exchang	e Capacity, Cl- form	1,3 eq/l min.	1,3 eq/l min.				
pH Range		0 ÷ 14	0 ÷ 14				
Suggested Or	arating Conditions						
	erating Conditions						
Maximum Terr	nperature, Cl- form	60ºC (140ºF) max	60ºC (140ºF) max				
Maximum Terr	nperature, OH- form	40°C (105°F) max	40°C (105°F) max				

Maximum Temperature, CI- form	60ºC (140ºF) max
Maximum Temperature, OH- form	40°C (105°F) max
Minimum Bed Depth	0,6 m (24")
Backwash Rate	50 ÷ 75% Bed Expansion
Regeneration	
Regenerant Concentration	2 ÷ 6% NaOH
Flow Rate	2 ÷ 4 BV/h (0,25 ÷ 0,50 gpm/cu.ft)
Contact Time	At least 60 Minutes
Displacement Rinse Rate	1,4 ÷ 2 BV (10 ÷ 15 gallons/cu.ft)
Displacement Rinse Volume	1,4 ÷ 2 BV (10 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Rate	4 ÷ 8 BV (30 ÷ 60 gallons/cu.ft)
Service Flow Rate	10 ÷ 50 BV/h (1,25 ÷ 6,25 gpm/cu.ft)

Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight

Certificates	Manufacturer	Sectors
	Pure Resin	Industrial







# Pure Resin PA201(CL)

- Macroporous Strong Base Anion Exchange Resin;

- It is a Type II, get strong-base anion exchange resin;
  Supplied wet as spherical beads in the chloride form;
  It has a high operating capacity, especially on high-FMA feedwaters, as well as a high reversible sorptive capacity for complex organic materials, such as the fulvic and humic acids which occur in many surface water supplies;
- It is recommended for use in waters with low silica loads. For high silica waters, a type I anion resin such as Pure PA200 is recommended;

•	Shipped	in	25	liter	bags
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Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA342	STRONG ANION MACROPOROUS TYPE II PURE RESIN PA201(CI)	65	300	ОК	
		-			0

Polymer Matrix Structure	Macroporous polystyrene crosslinked with divinylbenzene
Functional Group	R-N(CH3)2 (C2H4OH)+
Ionic Form, as shipped	Chloride (Cl-)
Physical Form and Appearance	Opaque light yellowish spherical beads
Sphericity	95% min
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max
Water Retention, Cl- form	47 ÷ 57%
Swelling Cl- $\rightarrow$ OH-	10% max
Weight, Cl- form	1,2 eq/l min.
Total Exchange Capacity, Cl - form	1,2 eq/l min.
pH Range	0 ÷ 14

Suggested Operating Conditions	
Maximum Temperature, Cl- form	60ºC (140ºF) max
Maximum Temperature, OH- form	40°C (105°F) max
Minimum Bed Depth	0,8 m (30")
Backwash Rate	50 ÷ 75% Bed Expansion
Regeneration, Regenerant Concentration	2 ÷ 5% NaOH
Service/fast rinse	5 ÷ 50 m/h (2 ÷ 20 gpm/ft2)
Co-current regeneration/displacement rinse	1 ÷ 10 m/h (0,4 ÷ 4 gpm/ft2)
Total rinse requirement	3 ÷ 5 Bed volumes
Temperature	Ambient up to 35°C (95°F) for silica removal

Box: WxLxH Box: Q.ty B	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight

Certificates	Manufacturer	Sectors
	Pure Resin	Industrial







- It is a Type I, Macroporous Strong Base Anion Exchange Resin supplied in chloride or hydroxide and has high capacity, shock resistant with high physical stability; It is widely used in multiple and mixed bed demineralizers, wherever complete ion and organic removal are required; It is also intended for use in all types of deionization systems, condensate polishing and chemical processing applications;
- Shipped in 25 liter bags.

Ref		Description		Fam.	Subfa m.	Disp. Stock	
RA341		STRONG ANION MACROPOROUS TYPE I PU	RE RESIN PA200(CI)	65	300	ок	
Polymer Matrix	Structu	re	Macroporous polystyrene crosslinked with divinylbenzene				

Functional Group	R-N(CH3)3
Ionic Form, as shipped	Chloride (Cl-)
Physical Form and Appearance	Opaque light yellowish spherical beads
Sphericity	95% min
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max
Water Retention, Cl- form	50 ÷ 60%
Swelling CI- $\rightarrow$ OH-	20 ÷ 30%
Weight, Cl- form	660 ÷ 730 g/l (43 lbs/cu.ft, approx.)
Total Exchange Capacity, Cl- form	1,15 eq/l min.
Total Exchange Capacity, OH- form	0,92 eq/l min.
pH Range	0 ÷ 14
Suggested Operating Conditions	
Suggested Operating Conditions Maximum Temperature, CI- form	80ºC (170ºF)
	80°C (170°F) 60°C (140°F)
Maximum Temperature, Cl- form	
Maximum Temperature, Cl- form Maximum Temperature, OH- form	60°C (140°F)
Maximum Temperature, Cl- form Maximum Temperature, OH- form Minimum Bed Depth	60°C (140°F) 0,6 m (24")
Maximum Temperature, CI- form Maximum Temperature, OH- form Minimum Bed Depth Backwash Rate	60°C (140°F)         0,6 m (24")         50 ÷ 75% Bed Expansion
Maximum Temperature, CI- form Maximum Temperature, OH- form Minimum Bed Depth Backwash Rate Regeneration, Regenerant Concentration	60°C (140°F)         0,6 m (24")         50 ÷ 75% Bed Expansion         4 ÷ 6% NaOH
Maximum Temperature, CI- form Maximum Temperature, OH- form Minimum Bed Depth Backwash Rate Regeneration, Regenerant Concentration Service/Fast Rinse	60°C (140°F)         0.6 m (24")         50 ÷ 75% Bed Expansion         4 ÷ 6% NaOH         2 ÷ 8 BV/h (0,25 ÷ 1,0 gpm/ft2)
Maximum Temperature, CI- form Maximum Temperature, OH- form Minimum Bed Depth Backwash Rate Regeneration, Regenerant Concentration Service/Fast Rinse Contact Time	60°C (140°F)         0,6 m (24")         50 ÷ 75% Bed Expansion         4 ÷ 6% NaOH         2 ÷ 8 BV/h (0,25 ÷ 1,0 gpm/ft2)         Minimum 60 minutes
Maximum Temperature, CI- form Maximum Temperature, OH- form Minimum Bed Depth Backwash Rate Regeneration, Regenerant Concentration Service/Fast Rinse Contact Time Displacement Rinse Rate	60°C (140°F)         0,6 m (24")         50 ÷ 75% Bed Expansion         4 ÷ 6% NaOH         2 ÷ 8 BV/h (0,25 ÷ 1,0 gpm/ft2)         Minimum 60 minutes         Same as Regenerant Flow Rate
Maximum Temperature, CI- form Maximum Temperature, OH- form Minimum Bed Depth Backwash Rate Regeneration, Regenerant Concentration Service/Fast Rinse Contact Time Displacement Rinse Rate	60°C (140°F)         0.6 m (24")         50 ÷ 75% Bed Expansion         4 ÷ 6% NaOH         2 ÷ 8 BV/h (0,25 ÷ 1,0 gpm/ft2)         Minimum 60 minutes         Same as Regenerant Flow Rate         1,4 ÷ 2,0 BV (10 ÷ 15 gallons/cu.ft)

Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight	
Certificates		Manufacturer	Manufacturer		Sectors	
F		Pure Resin		Industrial		







- Macroporous Weak Base Anion Exchange Resin;

- It is a macroporous polystyrene weak-base anion exchange resin having tertiary amine functionality;
  It has superior kinetics and greater resistance to oxidation and osmotic shock, high chemical and physical stability;
  Intended primarily for use in multiple bed demineralizers;
- It can be used in a two-bed system following a strong acid cation exchanger such as Pure PC003 where weak acid ions (silica
- and carbon dioxide) do not have to be removed; It can also be used in a separate bed, ahead of the strong base exchanger to remove organics and strong acid ions;
- Shipped in 25 liter bags.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA350	WEAK ANION MACROPOROUS PURE RESIN PA300	65	300	ОК	

Polystyrene crosslinked with divinylbenzene
R-N-(CH3)2
Free Base
Spherical Beads
95% min
16 ÷ 50 mesh, wet
+1,2 mm < 5%, - 0,3 mm < 1%
1,6 max
50 ÷ 60%
25% max.
650 ÷ 720 g/l (42 lbs/cu.ft, approx.)
1,4 eq/l min.
0 ÷ 14

Suggested Operating						
Maximum Temperatu	ıre		100ºC (212ºF) max			
Minimum Bed Depth			0,6 m (24")			
Backwash Rate			50 ÷ 75% Bed Expan	sion		
Regeneration						
Regenerant Concentration			2 ÷ 6% NaOH			
Flow Rate			2 ÷ 8 BV/h (0,25 ÷ 1,00 gpm/cu.ft)			
Contact Time			At least 60 Minutes			
Displacement Rinse Rate			Same as Regenerant Flow Rate			
Displacement Rinse	Volume		1,4 ÷ 2 BV (10 ÷ 15 gallons/cu.ft)			
Fast Rinse Rate			Same as Service Flow Rate			
Fast Rinse Volume			4,9 ÷ 8 BV (35 ÷ 60 gallons/cu.ft)			
Service Flow Rate			16 ÷ 32 BV/h (2,0 ÷ 4	4,0 gpm/cu.ft)		
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight	

Certificates	Manufacturer	Sectors	
	Pure Resin	Industrial	







- Nitrate Selective Resin;
- Macroporous strong base anion exchange resin supplied in the chloride form as moist, tough, spherical beads, specially designed for the removal of nitrates from water;
- The macroporous matrix and special ion exchange group functionality imparts ideal nitrate selectivity to Pure PA202 making this resin particularly suitable for nitrate removal even when moderate to high sulphate concentrations are present;
  Shipped in 25 liter bags.
- RefDescriptionFam.Subfa<br/>m.Disp.<br/>StockRA360STRONG ANION NITRATES SELECTIVE PURE RESIN PA20265300OK

Polymer Matrix Structure	Macroporous, Styrene with DVB
Functional Group	R-N-R3+ Cl-
lonic Form, as shipped	CI-
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max
Water Retention, Cl- form	52 ÷ 56%
Shipping Weight	680 ÷ 730 g/l (42 ÷ 45,5 lbs/cu.ft, approx.)
Total Exchange Capacity	1,0 eq/l min.
Max Operating Temperature	100°C (212°F) max.
pH Range	0 ÷ 14
Suggested Operating Conditions	
Maximum Operating Temperature	100ºC (212ºF) max
Working Exchange Capacity 25°C	≥ 0,3 meq/l (wet)
Concentration of Regenerate Solution	NaCl: 8 ÷ 10%
Consumption of Regenerate	NaCl (8 ÷ 10%) Vol. : Resin Vol. = 2÷3 : 1
Flow Rate of Regenerate Solution	4 ÷ 6 (m/hr)
Flow Rate of Regenerate Solution	30 ÷ 60 (minute)
Rinse Flow Rate	15 ÷ 25 (m/hr)
Rinse Time (minute)	25 (approx.)
Operating Flow Rate	15 ÷ 25(m/hr)

Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight	
Certificates		Manufacturer		Sectors		
DM174-2004		Pure Resin		Domestic, Commercial, Industrial		







- Ion exchange resin for PFAS removal from water;
- Macroporous strong base anion exchange resin;
  PA203 resin is supplied in the chloride form as moist, tough, spherical beads;
  Can be used for removal of varius PFAS compounds such as PFOA and PFOS;
- Non-regenerable application;
- Reduced contact times and longer throughputs vs. activated carbon treatment;
  Shipped in 25 liter bags.

Ref.	Description	Fam.	Subfa m.	Disp. Stock	
RA365	STRONG ANION PFAS SELECTIVE PURE RESIN PA203	65	300	ОК	

Polymer Matrix Structure	Macroporous, Styrene with DVB
Functional Group	Tributylamine
Ionic Form, as shipped	CI-
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max
Water Retention, Cl- form	40 ÷ 56%
Shipping Weight	650 ÷ 750 g/l
Total Exchange Capacity	0,6 eq/l min.
Max Operating Temperature	121°C (250°F) max.
pH Range	4 ÷ 10
Suggested Operating Conditions	
Maximum Operating Temperature	75ºC (170ºF) max
Working Exchange Effective Capacity 25°C	$\geq$ 0,3 eq/l (wet)
Operating Flow Rate	15 ÷ 45 m/h
Operating Flow rate	8 ÷ 40 BV/h (1÷ 5 gpm/cu.ft)
Empty Bed Contact Time = EBCT	1,5 ÷ 2,5 min.
Minimum Bed Depth	0,9 m

Pallet: Weight

Certificates	Manufacturer	Sectors		
DM174-2004	Pure Resin	Domestic, Commercial, Industrial		







#### Pure Resin PMB101-2

- · Mixed Bed Resin;
- It is a high capacity mixed bed ion exchange resin consisting of a mixture of a gel, Type I strong base anion resin and a gel strong acid cation resin for direct water purification; • The conductivity is around 0,1 us/cm;
- Suitable for use in regenerable or non-regenerable cartridges, for deionization with high silica removal efficiency and refine water for electrical home applications;Shipped in 25 liter bags.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA370	MIXED BED PURE RESIN PMB101-2	65	300	ОК	

Polymer Matrix Struct	ture		Gel polystyrene cross	linked with DVB			
Functional Group: Ca	tion		R-SO3- H+				
Functional Group: An	ion		R4-N-OH-				
Ionic Form, as shippe	d		H+ / OH-				
Physical Form and Ap	pearance		Spherical Beads				
Sphericity			95% min				
Screen Size Range US	S Standard Screen		16 ÷ 50 mesh, wet				
Particle Size Range			+1,2 mm < 5%, - 0,3	mm < 1%			
Volume Ratio (as shipped) Cation			40% PC003H				
Volume Ratio (as shipped) Anion			60% PA101OH				
Total Exchange Capacity, Cation (in Na+ form)			2,0 eq/l min.				
Total Exchange Capacity, Cation (in H+ form)			1,9 eq/l min.				
Total Exchange Capacity, Anion (in Cl- form)			1,0 eq/l min.				
Total Exchange Capacity, Anion (in OH- form)			1,0 eq/l min.				
Water Retention, H+ form			45 ÷ 50%				
Water Retention, OH-	+ form		53 ÷ 60%				
Water Retention, H+	form		700 ÷ 740 g/l (44 ÷ 4	16 lbs/cu.ft, approx.)			
Max temperature			60°C (140°F)				
pH Range			0 ÷ 14				
Suggested Operating	Conditions						
Minimum Bed Depth			0,6 m (24")				
Service Flow Rate			20 ÷ 60 BV/h (2,5 ÷ 7,5 gpm/cu.ft)				
Limitations			Extended exposure to strong oxidizers, such as chlorine, hydrogen peroxide and concentrated nitric acid, degrade the structural backbone of the resin and should be avoided				
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight		
Certificates		Manufacturer		Sectors			

	Pure Resin	Industrial





#### Pure Resin PMB102-2

- · Mixed Bed Resin;
- It is a high capacity mixed bed ion exchange resin consisting of a mixture of a gel, Type I strong base anion resin and a gel strong acid cation resin for direct water purification; • The conductivity is around 0,1 us/cm;
- Suitable for use in regenerable or non-regenerable cartridges, for deionization with high silica removal efficiency and applications for treatment of the R.O. permeate; • Shipped in 25 liter bags.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA372	MIXED BED PURE RESIN PMB102-2 (REFINING PERMEATEWATER)	65	300	ОК	

Polymer Matrix Struc	ture		Gel polystyrene cros	slinked with DVB		
Polymer Matrix Struc	ture: Cation		R-SO3- H+			
Polymer Matrix Struc	ture: Anion		R4-N-OH-			
Ionic Form, as shippe	ed		H+ / OH-			
Ionic Form, as shippe	ed		Spherical Beads			
Sphericity			95% min			
Screen Size Range U	S Standard Screen		16 ÷ 50 mesh, wet			
Particle Size Range			+1,2 mm < 5%, - 0,3	3 mm < 1%		
Volume Ratio (as shi	pped): Cation		40% PC003H			
Volume Ratio (as shi	pped): Anion		60% PA102OH			
Total Exchange Capa	acity, (Cation (in Na+ f	orm)	2,0 eq/l min.			
Total Exchange Capa	acity, Cation (in H+ for	m)	1,9 eq/l min.			
Total Exchange Capa	acity, Anion (in Cl- form	1)	1,3 eq/l min.			
Total Exchange Capa	acity, Anion (in OH- for	m)	1,0 eq/l min.			
Water Retention, H+	form		45 ÷ 50%			
Water Retention, OH	+ form		48 ÷ 58%			
Shipping Weight (Ap	prox.)		700 ÷ 740 g/l (44 ÷ 46 lbs/cu.ft, approx.)			
Max temperature: No	on-regenerative bed		100°C (212°F)			
Max temperature: Re	egenerative bed		60°C (140°F)			
pH Range			0 ÷ 14			
Suggested Operating	Conditions					
Minimum Bed Depth			0,6 m (24")			
Service Flow Rate			20 ÷ 60 BV/h (2,5 ÷ 7,5 gpm/cu.ft)			
Limitations			Extended exposure to strong oxidizers, such as chlorine, hydrogen peroxide and concentrated nitric acid, degrade the structural backbone of the resin and should be avoided			
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight	
Certificates		Manufacturer		Sectors		

Certificates	Manufacturer	Sectors
	Pure Resin	Industrial







#### Pure Resin PMB101-3

- · Mixed Bed Resin;
- It is a high capacity mixed bed ion exchange resin consisting of a mixture of a gel, Type I strong base anion resin and a gel strong acid cation resin for direct water purification; • The conductivity is around 0,06 us/cm;
- Suitable for use in regenerable or non-regenerable cartridges, for deionization with high silica removal efficiency and ultrapure water production applications;Shipped in 25 liter bags.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA374	MIXED BED PURE RESIN PMB101-3 (PURE WATER 12 - 16MOhm)	65	300	ОК	

Polymer Matrix Struc	ture		Gel polystyrene cross	slinked with DVB		
Functional Group: Cation			R-SO3- H+			
Functional Group: An	ion		R4-N-OH-			
Ionic Form, as shippe	ed		H+ / OH-			
Physical Form and Ap	opearance		Spherical Beads			
Sphericity			95% min			
Screen Size Range U	S Standard Screen		16 ÷ 50 mesh, wet			
Particle Size Range			+1,2 mm < 5%, - 0,3	5 mm < 1%		
Volume Ratio (as shi	pped) Cation		40% PC003H			
Volume Ratio (as shi	pped) Anion		60% PA101OH			
Total Exchange Capa	icity, Cation (in Na+ fo	orm)	2,0 eq/l min.			
Total Exchange Capa	icity, Cation (in H+ forr	m)	1,9 eq/l min.			
Total Exchange Capa	icity, Anion (in Cl- form	)	1,3 eq/l min.			
Total Exchange Capa	icity, Anion (in OH- forr	n)	1,0 eq/l min.			
Water Retention, H+	form		45 ÷ 50%			
Water Retention, OH	+ form		53 ÷ 60%			
Shipping Weight (App	orox.)		700 ÷ 740 g/l (44 ÷ 4	46 lbs/cu.ft, approx.)		
Max temperature: No	on-regenerative bed		100°C (212°F)			
Max temperature: Re	generative bed		60°C (140°F)			
pH Range			0 ÷ 14			
Suggested Operating	Conditions		0.0 (0.11)			
Minimum Bed Depth			0,6 m (24")			
Service Flow Rate			20 ÷ 60 BV/h (2,5 ÷			
Limitations			hydrogen peroxide a	o strong oxidizers, suc nd concentrated nitric of the resin and should	acid degrade the	
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight	
Certificates		Manufacturer		Sectors		
		Pure Resin		Industrial		







- Selective removal of polyvalent ions;
- Macroporous Weak Acid Cation Exchange Resin;
  it is based on the iminodiacetatic acid functional group, which has chelating properties for heavy metal ions even against high concentrations of calcium;
- It finds use in processes for extraction and recovery of metals from ores, galvanic plating solutions, picking baths and effluents; • Shipped in 25 liter bags.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA376	WEAK CATION POLYVALENT IONS SELECTIVE PURE RESINPS400	65	300	ОК	

Polymer Matrix Structure			Macroporous, Styrene / DVB			
Functional Group			Iminodiacetatic			
Functional Group			Na+			
Physical Form and Ap	opearance		Milky White Spherica	l Beads		
Sphericity			95% min			
Screen Size Range U	S Standard Screen		16 ÷ 50 mesh, wet			
Particle Size Range			0,30 ÷ 1,20 mm ≥ 9	5		
Uniformity Coefficien	t		1,6 max.			
Water Retention, Na-	+ form		55 ÷ 65%			
Reversible Swelling H	l+ → Na+		40% max.			
Shipping Weight			720 ÷ 780 g/l (45 lbs/cu.ft, approx.)			
Total Exchange Capa	icity, Na+ form		≥ 1.0 meq/ml			
pH Range			6 ÷ 11			
Suggested Operating	Conditions					
Maximum Temperatu	ure, H+ form		100ºC (212ºF) max.			
Operating Flow Rate			15 ÷ 45 (m/hr)			
Method of Regeneration			pass 1 eq/l HCl 2~4 BV in 1~1,5 hours, rinse with DI water or soft water until pH = 3~4; pass 1 eq/l NaOH 2~4 BV in 1,5~2 hours, rinse with DI water or soft water until pH = 9			
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight	

Certificates	Manufacturer	Sectors
DM174-2004	Pure Resin	Industrial





#### **Greensand Plus**

- Filter media used for removing soluble iron, manganese, hydrogen sulphide, arsenic and radium from well water supplies; The Manganese Greensand Plus has a manganese dioxide coated surface that acts as a catalyst in the oxidation-reduction of iron and manganese:
- The silica sand core allows to better withstand operating conditions in waters that are low in silica, TDS and hardness;
- · A pre-filtration with sand and anthracite is recommended;
- The Manganese Greensand Plus can be used in CR (continuous regeneration) or IR (intermittent regeneration) and requires no changes in backwash rate or times or chemical feeds;
- The removal of iron and manganese can be made by using oxidant as chlorine, even in the presence of manganese;
- Not shipped in regenerated form; prior to use it is necessary to regenerate with a solution of potassium permanganate contacting the bed for a minimum of 4 hours. A regeneration level of 4 g of potassium permanganate per liter is recommended. Before placing in service the filter must be rinsed of all remaining traces of potassium permanganate; • Dosage Cl2 (mg/l) = 1 mg/l Fe + 3 mg/l Mn + 6 mg/l H2S + 8 mg/l NH3 for service flow rate continuous;

• Available in 14,2 liters bags.

Ref	Description			Fam.	Subfa m.	Disp. Stock	
RA074	MANGAN	NESE GREENSAND PLUS BAG 14,2	LT	65	315	ОК	
Physical properties			Operating conditions				
Colour		black	pH range		6,2 ÷ 8,8		
Specific gravity (g/l)		2400	Service flow rate contir / intermittent (m3/h m2)		12 ÷ 29		
Bulk density (g/l)		1410	Backwash flow rate @13 (m3/h m2)	°C	30		
Effective size (mm)		0,30 ÷ 0,35	Backwash bed expansion	n (%)	35 ÷ 40		
Uniform coefficient		1,6	Pressure drop (psi)		10 ÷ 18		

Recommended Operating Guidelines	Intermittently Regeneration (IR)	Recommended Operating Guidelines	
Minimum bed depth (mm)	750 single media:380 each for dual media beds	Minimum bed depth (mm)	500 Greensand Plus and 380 Anthracite
Backwash Duration	10 minutes (until water is CLEAR)	Backwash Duration	10 minutes (until water is clear)
Regenerant Dosage 6,5% Bleach	65 liters / m3 diluted in approx. 25 liters of water injected over 30 ÷ 40 minutes		
Regenerant Dosage 12% Bleach	25 liters / m3 diluted in approx. 25 liters of water injected over 30 ÷ 40 minutes		

Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight

Certificates	Manufacturer	Sectors	
NSF61		Domestic, Commercial, Industrial	





#### BIRM

- Granular filter media used for the reduction of iron and manganese dissolved in the water. In ground water the dissolved iron is usually in the ferrous bicarbonate state and is not filterable; BIRM acts as an insoluble catalyst to enhance the reaction between dissolved oxygen and iron compounds, producing 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;
  Available in 28,3 liters bags;
  Following are the conditions necessary for a good efficiency of the BIRM:
- No Oil, Hydrogen Sulphide and Polyphosphates in the water;
- b (b), flydiogen supplies and polyphosphates in the water,
  c pH 6,8 + 9,0 (if water contains also manganese pH has to be 8,0 + 8,5);
  c Dissolved oxygen content must be equal to at least 15% of the iron content and 29% of the manganese content;
  c Alkalinity should be greater than two times the combined sulphate and chloride concentration;
  c Less than 5 ppm TOC.

Ref	Descript	ion	nc			Subfa m.	Disp. Stock
RA072	BIRM RE	GULAR BAG	5 28.3 LT.		65	315	ОК
PHYSICAL PROPERTIES	PHYSICAL PROPERTIES OPE			OPERATING CONDITIONS			
Colour		black		Bed depth (mm)		750 ÷ 900	
Specific gravity (g/l)		2000		Service flow rate (m3/h m2)		9 ÷ 13	
Bulk density (g/l)		560 ÷ 640	)	Backwash flow rate (m3/h m2)		24 ÷ 30	
Mesh Size		12 x 50		Backwash bed expansion (%)		20 ÷ 40	
Effective Size (mm)		0,48		Max temperature (°C)		38	
Uniform Coefficient		2,7					
Box: WxLxH	Box: Q.ty		Box: Weight	Pallet: WxLxH	Pallet: Q.t	y	Pallet: Weight

Certificates	Manufacturer	Sectors
NSF61	Clack	Domestic, Commercial, Industrial







## Pyrolusite

- PYROLUSITE is manganese dioxide (MnO2) of very good quality and pureness obtained by washing, drying and screening of
- Used as catalyser for the reduction of iron and manganese dissolved in the water, by sand filters, mixed 20+50 % with sand 0,4+0,8 / 0,7+1,2 mm;
- Does not require a compulsory regeneration with KMnO4 , but you can do a continuous chlorination or a chlorination during the backwash;
  Hardness 3° ÷ 5° Mohs;

•	Avai	lable	in	25	kg	bags.

Ref	Description	escription			Subfa m.	Disp. Stock			
RA069	MWG PYROLUSITE	(MANGANESE DIOX	IDE) BAG 25 KG	65	315	ОК			
Physical Properties									
Colour brown									
Bulk density (g/l)		2000							
Effective size (mm)			0,35 ÷ 0,85						
Mn (%)			80	80					
Operating Conditions									
Composition			Mixed 20÷50 % w	Mixed 20÷50 % with sand 0,4÷0,8 / 0,7÷1,2 mm					
Suggested filtration speed (m/h)			≤ 10						
Max backwash speed (m3/h m2)			25						
Backwash expansion at 25 m/h (%)			25						
Min contact time (min)			6						
Range pH			6,5 ÷ 8,5	6,5 ÷ 8,5					
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.t	y	Pallet: Weight			

Certificates	Manufacturer	Sectors
STANDARD EN 13752	MWG	Domestic, Commercial, Industrial





#### Activated Carbon

- RA204 activated carbon is not suitable for treatment of water intended for human consumption;
- In granular form;
- Suitable for Chlorine, chemical oxidants, chlorinated compounds and organic contaminants dissolved in water;
  activated carbon require periodic backwashing to eliminate accumulated suspended matters and to regrade the filter bed;
- A good backwashing of the AC filter bed of the start-up is required.
- Mainly bituminous origin coal activated carbons are carefully selected, with a thermal activation process at strictly controlled temperature to obtain a large surface area and a mesoporous structure allowing the adsorption of high molecular weight organic compounds in particular hydrocarbons, atrazine, surfactants;
- Mainly vegetal (coconut base) activated carbons are suitable for applications that need good resistance to the attrition and mechanical shocks; they have a microporous structure allowing the adsorption of low molecular weight organic compounds in particular trichloroethylene, tetrachloroethylene.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA204	MWG BAG 25 KG CARB. CYLINDRICAL MIN. SC 45 (47 LT.ABOUT)	65	305	ОК	
RA201	MWG BAG 25 KG CARB. MIN. GAC 830 M (52 LT.ABOUT)	65	305	ОК	
RA202	MWG BAG 25 KG CARB. MIN. GAC 1240 M (52 LT. ABOUT)	65	305	ОК	
RA206	MWG BAG 25 KG CARB. GAC 8X30 VEGETAL	65	305	ОК	
RA208	MWG BAG 25 KG CARB. GAC 12X40 VEGETAL	65	305	ОК	

Ref	Туре	Origin	Size(mm)	Bulk density (g/l)	Bet (m²/g)	lodine number (mg/g)	Ash content (%)
RA204	SC45 cylindrical	Mineral	4 x (6 ÷12)	590	700	750	15
RA201	GAC 8x30	Mineral	0,6 ÷ 2,4	480	1100	1000	12
RA202	GAC 12x40	Mineral	0,4 ÷ 1,7	480	1100	1000	12
RA206	GAC 8x30	Vegetal	0,6 ÷ 2,4	500	1250	1100	3
RA208	GAC 12x40	Vegetal	0,4 ÷ 1,7	500	1250	1100	3

Operating conditions	
Bed depth (mm) (dechlorination)	650 ÷ 750
Service flow rate (m3/h m2) (dechlorination)	12 ÷ 15
Backwash flow rate (m3/h m2)	24 ÷ 30
Backwash bed expansion (%)	30 ÷ 40

Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight

Certificates	Manufacturer	Sectors
STANDARD EN 12915-1:2004 (except RA204)	MWG	Commercial, Industrial





#### Acid Washed Activated Carbon

- High quality granular activated carbon produced by physical activation of selected raw material of mineral origin;
- It is further washed with acid in order to reduce the ash content;
  Particularly effective for the removal of organic pollutants, dyes, pesticides, chlorinated and aromatic solvents, phenols, tannins, chlorine derivatives and compounds that cause bad smells and tastes in drinking water;
- Suitable for different applications such as the purification of water intended for human consumption, the purification of wastewater, of process and condensates. It is also used in the purification and discoloration processes of intermediates chemical and food products;
- It can be thermally reactivated once its adsorbing capacity is exhaust; • Available in 25 kg bags.

Ref	Descript	ion				Subfa m.	Disp. Stock
RA222	MWG BA	G 25 KG C/	ARB. GAC 12X30 MINE	RAL ACID WASHED	65	305	ОК
GENERAL PROPERTIES							
lodine number		Astm D 46	607	mg / g		1.000	
Moisture as packed		Astm D 28	67	%		2	
Size		Astm D 28	62	Mesh		12 x 30	
Methylene blue index		12 Mesh /	30 Mesh	%		5 - 5	
Indice Blu di Metilene		Cefic Dab	VI	ml		18	
CCl4 adsorption		Astm D 3467		%		60	
Surface area (B.E.T.)		Astm D 3663		m ²/g		1.100	
Bulk density		Astm D 2854		kg/m <sup>3</sup>		460	
Density after back-was and draining	shing			kg/m <sup>3</sup>		420	
Iron (acid extraction)				ppm		300	
Hardness		Astm D 38	02	%		95	
Ash content		Astm D 28	66	%		8	
рН		Astm D 38	38	- neut		neutral	
Box: WxLxH	Box: Q.ty		Box: Weight	Pallet: WxLxH	Pallet: Q.t	y	Pallet: Weight

Certificates	Manufacturer	Sectors
STANDARD EN 12915	MWG	Domestic, Commercial, Industrial







#### Filter Sand and Gravel

- REF. RA049, RA050, RA051, RA052 and RA053;
- Filter sand and gravel shape of alluvium origin, uncrushed;
  High contents of silica, selected for specific use in water filtration for potable and industrial application;
  Hardness 7° Mohs.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA049	QUARTZ SAND 0.4 - 0.8 BAG 25 KG	65	310	ОК	
RA050	QUARTZ SAND 0.8 - 1.2 BAG 25 KG	65	310	ОК	
RA051	QUARTZ SAND 1 - 2 BAG 25 KG		310	ОК	
RA053	QUARTZ SAND 2 - 3 BAG 25 KG		310	ОК	
RA052	QUARTZ SAND 3 - 5 BAG 25 KG		310	ОК	
Ref	Description	SIZE (mi			
RA049	QUARTZ SAND 0.4 - 0.8 BAG 25 KG	0,4 ÷ 0,	8		
RA050	QUARTZ SAND 0.8 - 1.2 BAG 25 KG	0,8 ÷ 1,	2		
RA051	QUARTZ SAND 1 - 2 BAG 25 KG	1,0 ÷ 2,0			
RA053	QUARTZ SAND 2 - 3 BAG 25 KG	2,0 ÷ 3,0			
RA052	QUARTZ SAND 3 - 5 BAG 25 KG	3,0 ÷ 5,	0		

Physical properti	es						
Colour			white	white			
Specific gravity (	g/l)		2650				
Bulk density (g/l)	)		1500				
SiO2 content			> 96 %				
Humidity			0,3 % max				
Melting point			1700 g/c				
pН			8				
Operating conditions							
Bed depth (mm)	(sand filter)		450 ÷ 750	450 ÷ 750			
Service flow rate	(m3/h m2)		8 ÷ 12	8 ÷ 12			
Backwash flow ra	ate (m3/h m2)		30 ÷ 42	30 ÷ 42			
Backwash bed ex	xpansion (%)		5 ÷ 10	5 ÷ 10			
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight		
Certificates		Manufacturer		Sectors			
STANDARD EN 12904				Domestic, Comm	ercial, Industrial		







#### Anthracite

- Granular anthracite selected per gradation, hardness and purity for specific use in potable and industrial water filtration; • The high filtering efficiency of anthracite is due to its angular shape, that allows high filtering speed, longer filter runs and less head loss:
- Excellent media with density lower than sand, the anthracite is usually used in multimedia filters;
- Minimum carbon contents 90%, low silica, hardness 3° Mohs average.

#### **Operating conditions:**

- Monolayer bed depth 600 ÷ 900 mm;
  Top bed depth in multilayer beds 250 ÷ 450 mm;
- Service flow rate following specific conditions;
  Backwash flow rate 28 ÷ 35 m3/h m2;
- Bed expansion 20 ÷ 30%.

Ref	Description	Fam.	Subfa m.	Disp. Stock
RA060	ANTHRACITE 0.6 - 1.0 BAG 25 KG	65	310	ОК
RA061	ANTHRACITE 2 - 3 BAG 25 KG.	65	310	ОК
		-		
Ref	Description	SIZE (mm)		
RA060	ANTHRACITE 0.6 - 1.0 BAG 25 KG	0,6 ÷ 1,0		
RA061	ANTHRACITE 2 - 3 BAG 25 KG.	2,0 ÷ 3,0		

Physical properties						
Bulk density (g/l)			950			
Absolute density (g/l)			1400			
Humidity packaging			2 % max			
Ashes			4 % (±2)			
Substances volatiles			3 % (±1)			
Sulphur			0,5 % max			
рН			8 ÷ 10			
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight	

Certificates	Manufacturer	Sectors
STANDARD EN 12909		Domestic, Commercial, Industrial







# Calcite

- CALCITE is a natural crushed and screened calcium carbonate media which is used to neutralize low pH waters;
- Acidic water slowly dissolves the calcium carbonate to raise the pH which reduces the potential leaching of copper, lead and other metals found in typical plumbing systems;
- One of the advantages of CALCITE is its self-limiting property, that corrects pH only enough to reach a non corrosive equilibrium; Of course CALCITE will increase the hardness of the water;
  Periodic backwashing of the bed is necessary to keep in working order the system;
  The CALCITE bed will have to be periodically replenished as the CALCITE is depleted;

- Gravel support bed is recommended;
- Available in 15,6 liters bags.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA073	CALCITE BAG 15.6 LT.	65	320	ОК	

Physical propertie	Physical properties						
Colour			white	white			
Specific gravity (g	ı/l)		2700				
Bulk density (g/l)			1450				
Effective size (mm	n)		0,4 ÷ 1,1				
Composition			CaCO3 95% min.	MgCO3 3% max			
Operating conditions							
Bed depth (mm)			600 ÷ 750	600 ÷ 750			
Service flow rate (m3/h m2)			7 ÷ 15	7 ÷ 15			
Backwash flow rat	te (m³/h m²)		20 ÷ 30	20 ÷ 30			
Backwash bed exp	pansion (%)		≥ 50	≥ 50			
pH range			5,0 ÷ 7,0	5,0 ÷ 7,0			
		Dave Mariaki			Bellet March Li		
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight		
Certificates		Manufacturer		Sectors			
NSF60	NSF60			Domestic, Comm	ercial, Industrial		





#### Filter AG

- Filter-Ag is a non-hydrous silicon dioxide media which can be used as highly efficient filter media for the reduction of suspended matter. Its fractured edges and irregular surface provides an high surface area and complex flow path for efficient filtration;
  Less pressure loss through a bed of Filter-Ag than through most other filter medias;
  Light weight requires lower backwash rates than other filter medias;
- Upon installation allow bed to soak overnight before backwashing;
- Available in 28,3 liters bags.

Ref	Description	Description			Subfa m.	Disp. Stock
RA059	FILTER AG - BAG 2	8,3 LT		65	310	ОК
Physical properties						
Colour			light grey			
Specific gravity (g/l)			2250			
Specific gravity (g/l)			380 ÷ 420			
Effective size (mm)			0,5 ÷ 2,0			
Operating conditions						
Bed depth (mm)			600 ÷ 900			
Service flow rate (m3	/h m2)		12 ÷ 13			
Backwash flow rate (r	m3/h m2)		20 ÷ 24			
Backwash bed expan	sion (%) of bed depth		20 ÷ 40			
Freeboard of bed dep	oth (%)		≥ 50			
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	<i>,</i>	Pallet: Weight
Certificates		Manufacturer		Sectors		
NSF61	NSF61			Domestic,	Commerc	ial, Industrial





#### Filter AG Plus

- Filter-Ag Plus is a clinoptilolite natural media with a large surface area and microporous structure which can be used as highly efficient filter media for the reduction of suspended matter. Its irregular surface and 3 micron void spaces provides a surface area over 100 times greater than silica sand;
- 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;
- Utilizing deep bed filtration can tipically reduce suspended solids down to 5 micron or less range;
- Filter Ag Plus can be applied to systems designed for either pressure or gravity flow;
   Available in 28,3 liters bags.

Available in 28,3 liters bags.						
Ref	Description	ription			Subfa m.	Disp. Stock
RA058	FILTER AG PLUS - B	AG 28,3 LT		65	310	ок
Physical properties						
Colour			White to off white			
Specific gravity (g/l)			2200			
Bulk density (g/l)			800			
Effective size (mm)			0,55			
			1			
Operating conditions						
Bed depth (mm)			600 ÷ 1200 (900 for optimal filtration)			
Service flow rate (m3	3/h m2)		30 ÷ 50			
Backwash flow rate (	m3/h m2)		35 ÷ 45			
Backwash bed expar	nsion (%) of bed depth		30 ÷ 40			
Freeboard of bed dep	oth (%)		≥ 50			
	1					1
Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty		Pallet: Weight
Certificates		Manufacturer		Sectors		
NSF61		Clack		Domestic,	Commerc	ial, Industrial







GFH	(Granular	Ferric	Hydroxide)
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- Granular ferric hydroxide GFH is an adsorbent for selective removal of arsenic (both arsenite and arsenate), phosphate,
- vanadium, antimony, lead, uranium, molybdenum and other heavy metals from natural water; Preoxidation is not required for arsenic removal applications;
- Once the media has exhausted its adsorption capacity, it is removed from the vessel and replaced with new media;
  The simplicity of this process is very attractive for small installations and wellhead applications;

- Active substance  $Fe(OH)3 + \beta$ -FeOOH;• Dry solids content 58% (± 10%); EN 15029 European Standard compliant;
- NSF/ANSI 61 Standard compliant;
- For large quantities it is possible to order this material in a 800 kg big bag.
- Requirements for raw water

  - Free of turbidityPositive redox potential
- No calcium precipittion

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA068D	GRANULAR FERRIC HYDROXIDE DRUM 20 KG	65	315	ОК	

Physical properties (with water content 45%):	
Density of grains (g/l)	1590
Bulk density (g/l) backwashed	1150 (± 10%)
Particle size range (mm)	0,2 ÷ 2,0
Specific surface (m2/g) (BET method)	circa 300
Porosity of grains (%)	72 ÷ 77
Bulk porosity (%)	22 ÷ 28
Iron content, relative to dry solids	600g / Kg (± 10%)

Operating conditions	
Bed depth (m)	0,8 ÷ 1,6
Specific flow rate (m3/h m2)	5 ÷ 20
Contact time (min)	3 ÷ 6
Backwash flow rate (m3/h m2)	26
Expansion free volume (%) of bed depth	50
Pressure loss max (bar)	0,5
Operation temperature max (°C)	60
AsO4 3- Arsenic adsorption density in the drinking water processing (g/kg)	2 ÷ 10 (*)
(*) the adsorption density depends on pH and water chemistry.	

Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight
Certificates		Manufacturer	Manufacturer		
STANDARD EN 15029 NSF61				Domestic, Com	mercial, Industrial





#### Ecomix

- ECOMIX is a granular filtering media, suitable for remove natural organic matter, hardness, iron, manganese and ammonia in a wide pH range and without any oxidant products dosage;
  ECOMIX is a homogeneous mixture of five high quality ion-exchange and adsorption materials of natural and synthetic origin;
- You can use ECOMIX as a ion-exchange resin and regenerate it with sodium chloride (NaCl);
- Wide range of raw water as indicated in the "Limit Concentration
- · Table" below;
- ECOMIX can treat water with high concentration of Fe and Mn, and with max TDS = 4000 mg/l;
- To calculate filter capacity, one should only consider water hardness and ion-exchange capacity (don't consider Fe and Mn
- data);
- NSF/ANSI 44, 61 & 372 certified;
  Shipping weight 0,75 kg / liter;
  Available in 12,0 or 25,0 liters bags.
- ECOMIX A is preferred when the contaminats to be removed are mainly Ammonia, Hardness, Iron and Manganese, and you have a little quantity of organic matter;
- ECOMIX C is preferred when the contaminats to be removed are mainly Ammonia, Hardness, Iron and Manganese, and you have a big quantity of organic matter:
- ECOMIX P is preferred when the contaminats to be removed are mainly Hardness, Iron and Manganese;
- Warning: if you use only a part of the product contained in a bag, you have make sure that all the contents are mixed, in order to homogenize the product before spilling. ECOMIX is a mixture of five materials with different specific weight and different particle size, which if not well mixed tends to stratify.

Ref	Description	Fam.	Subfa m.	Disp. Stock	
RA080	FILTER MEDIA ECOMIX - A (BAG 12 LT.)	65	315	ОК	
RA080A	FILTER MEDIA ECOMIX - A (BAG 25 LT.)	65	315	NO	
RA081	FILTER MEDIA ECOMIX - C (BAG 12 LT.)	65	315	ОК	
RA081A	FILTER MEDIA ECOMIX - C (BAG 25 LT.)	65	315	NO	
RA082	FILTER MEDIA ECOMIX - P (BAG 12 LT.)	65	315	ОК	
RA082A	FILTER MEDIA ECOMIX - P (BAG 25 LT.)	65	315	NO	

Ref	lon exchange capacity (eq/l)	lon exchange capacity(g CaCO3/I)	Dose of regenerant (g NaCl/liter 8-10%)
RA080	0,75	35	100
RA080A	0,75	35	100
RA081	0,65	30	100
RA081A	0,65	30	100
RA082	0,80	40	100
RA082A	0,80	40	100

Certificates	Manufacturer	Sectors
DM174-2004 NSF44 NSF61 NSF372		Domestic, Commercial, Industrial





No changes

# Ecomix

Quality of purified water

#### Limit Concentration Tables

ECOMIX A	Hardness (ppm CaCO3)	Fe (mg/l) (ppm)	Mn (mg/l) (ppm)	COD (ppm KMnO4)	Ammonia (mg/l) (ppm)	TDS (ppm)
Raw water concentration limits	< 750	< 15	< 3	< 32	< 4	< 4000
Quality of purified water	≤ 20	< 0,2	< 0,05	< 16	< 0,5	No changes

ECOMIX C	Hardness (ppm CaCO3)	Fe (mg/l) (ppm)	Mn (mg/l) (ppm)	COD (ppm KMnO4)	Ammonia (mg/l) (ppm)	TDS (ppm)
Raw water conce ntration limits	< 750	< 15	< 3	< 80	< 4	< 4000
Quality of purified water	≤ 20	< 0,2	< 0,05	< 16	< 0,5	No changes
ECOMIX P	Hardness (ppm CaCO3)	Fe (mg/l) (ppm)	Mn (mg/l) (ppm)	COD (ppm KMnO4)	Ammonia (mg/l) (ppm)	TDS (ppm)
Raw water conce ntration limits	< 750	< 15	< 3	N.A.	N.A.	< 4000

N.A.

N.A.

< 0,05

Operating conditions		Unit of measurement
Maximum operating temperature	40	°C
pH range	5 ÷ 9	
Minimum bed depth	500	mm
Optimum bed depth	800	mm
Service flow rate	20 ÷ 25	m³/h m²
Backwash flow rate (15÷20 min)	10 ÷ 15	m³/h m²
Regeneration flow rate (45÷65 min)	3 ÷ 5	m³/h m²
Active chlorine	< 1	mg/l (ppm)
Free bed volume	≥ 40	%

Commonly used pressure vessels:

≤ 20

< 0,2

	8x35	8x44	10x35	10x54	12x52	13x54	14x65	16x65	21x62
Volume of Ecomix (Liters)	16	20	24	36	48	60	72	96	144
Flow Rate (m³/h)@25 m/h	0,8	0,8	1,2	1,2	1,8	2,0	2,5	3,0	5,5
IX Capacity (kg CaCO3)	0,56	0,7	0,8	1,3	1,7	2,1	2,5	3,3	5,0
Salt (kg)	1,6	2,0	2,4	3,6	4,8	6,0	7,2	9,6	14,4
BW Flow Rate (m³/h)	0,4	0,4	0,6	0,6	0,9	1,1	1,2	1,6	2,7





#### Corosex

Corosex is designed for use in filters to neutralize acidity by increasing the pH value;

By neutralizing the free carbon dioxide in water, Corosex can correct acidic water conditions and render it less corrosive. Corosex, being a highly reactive magnesium oxide, is used most effectively where pH correction is substantial or high flow conditions are in use. pH correction and media consumption are affected by a number of water chemical variables. Being soluble to acidity, Corosex will slowly dissolve and will need to be replenished periodically;

- On a per weight basis, magnesium oxide can neutralize five times more acidity than can calcium carbonate. This results in greatly reduced chemical usage for the same pH correction. Please note; under certain low flow conditions, Corosex may overcorrect and create a highly basic (high pH) condition;
- Under certain hardness conditions, pH correction can cause hardness minerals to precipitate out of solution, resulting in cementing or solidification of the Corosex mineral bed. Upflow service is generally recommended with hardness exceeding 9 °F.
- Always use an in-line filter ahead of an upflow system to prevent plugging of the lower distribution screen; As Corosex's magnesium oxide neutralizes the water, it will increase hardness and a softener may become necessary after the neutralizing filter;
  - Corosex can be effectively combined with Calcite to combine the high flow neutralization properties of Corosex, along with the slower reacting low flow properties of Calcite, reducing potentially high basic properties due to overcorrection; High degree of activity and speed of correction allowing high flow;
- · High capacity...less chemical usage; Available in 18,7 liters bags.

Ref	Description		Fam.	Subfa m.	Disp. Stock	
RA075	COROSEX BAG 18.7 LT.		65	315	ОК	
Physical properties						
Colour		Brownish white				
Specific gravity (g/l)		3600				
Bulk density (g/l)		1200				
Effective size (mm)		1,4				
Uniformity coefficient		1,7				
Composition		MgO 97% min.				
Mesh size		6 x 16				

Operating conditions	
Bed depth (mm)	600 ÷ 750
Service flow rate (m <sup>3</sup> /h m <sup>2</sup> )	12 ÷ 15
Backwash flow rate (m <sup>3</sup> /h m <sup>2</sup> )	25 ÷ 30
Backwash bed expansion (%)	≥ 50
pH range	4,5 ÷ 6,0

Box: WxLxH	Box: Q.ty	Box: Weight	Pallet: WxLxH	Pallet: Q.ty	Pallet: Weight

Certificates	Manufacturer	Sectors
NSF60	Clack	Domestic, Commercial, Industrial

