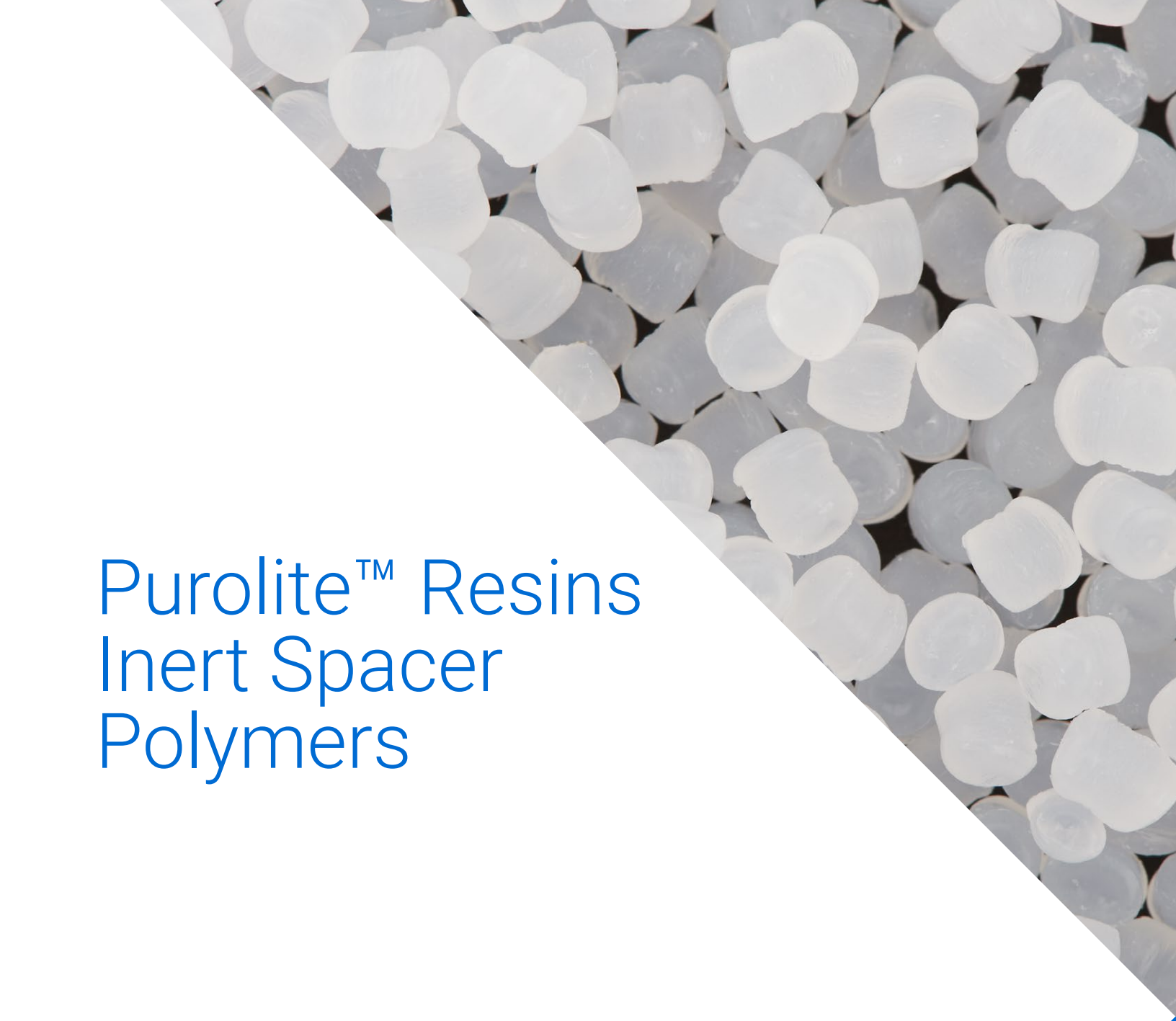


Purolite™ Resins Inert Spacer Polymers

Purolite Resins inert spacer polymers are used to create a barrier in an ion exchange bed and keep the ion exchange beads exactly where they are supposed to be.

ECOLAB®

Purolite Resins Inert Spacer Polymers

Contents

Overview

Purolite Resins inert spacer polymers are used to create a barrier in an ion exchange bed and keep the ion exchange beads exactly where they are supposed to be. They can guard the bottom collectors, the top distributors and create separation between cation and anion layers in a mixed bed. Inert spacer polymers come in different sizes and configurations to cover a wide range of systems.

- Interface between cation and anion resins in Trilite three-component mixed bed systems
- Inert guard for top distributors in a packed bed system
- Underbed protection
- Mixed bed polishing of ultrapure water

Product	Type	Specific Gravity	Particle Size Or Dimension (mm)	Remarks & Applications
IP1	Polyethylene	0.91–0.95	2.5–4.0	Floating inert polymer for Puropack systems with downflow service in droplets form.
IP3	Polyacrylate	1.12–1.16	0.63–0.85	White colored inert spacer for use as interface between cation and anion resins in Trilite systems or mixed beds.
IP4	Polypropylene	0.8–0.9	0.8–1.6	Floating inert polymer in the form of small cylinders for Puropack systems with upflow service.
IP7	Polyacrylate	1.12–1.16	0.63–0.85	Blue colored inert spacer for use as interface between cation and anion resins in Trilite systems or mixed beds.
IP9	HDPVC	1.3 (min.)	2–5.5	High density inert polymer for use as an underbed.
IP4300	Polystyrenic	–	< 315 µm	For use in mechanical lubrication in well drilling operations.

Purolite IP1

Polyethylene, Inert Polymer, Downflow Service Packed Beds Puropack™

Overview

Principal Applications

Strainer guard for downflow service packed bed systems

Regulatory Approvals

- IFANCA Halal certified
- Kosher certified

Typical Packaging

- 25 L sack
- 1 ft^3 box
- 5 ft^3 drum (fiber)
- 1 m^3 supersack
- 42 ft^3 supersack

Systems

Upflow–regenerated packed bed systems

Advantages

- Protects upper nozzle plates from blockage
- Allows passage of suspended solids in regeneration
- Floats in water

Typical Physical & Chemical Characteristics

Polymer Structure:
Polyethylene

Appearance:
Beadlike droplets

Particle Size Range:
2.5–4 mm

Specific Gravity:
0.91–0.95

Shipping Weight (approx.):
540–560 g/L (33.8–35.0 lb/ft^3)

Temperature Limit:
100 °C (212.0 °F)

Purolite IP1 polymer.

Purolite IP3

Polyacrylic, Inert Polymer, White Color, Trilite Mixed Bed System

Overview

Principal Applications

- Interface between cation and anion resins
- Condensate polishing

Typical Packaging

- 25 L sack
- 1 ft^3 box
- 5 ft^3 drum (fiber)
- 1 m^3 supersack
- 42 ft^3 supersack

Systems

Trilite systems

Advantages

- White color, suitable for gel mixed beds
- Separates cation and anion resin

Typical Physical & Chemical Characteristics

Polymer Structure:
Polyacrylic

Appearance:
Spherical beads

Particle Size Range:
0.63–0.85 mm

Uniformity Coefficient (max.):
1.2

Specific Gravity:
1.12–1.16

Shipping Weight (approx.):
680–710 g/L (42.5–44.4 lb/ft^3)

Temperature Limit:
100 °C (212.0 °F)

Purolite IP3 polymer.

Purolite IP3 polymer compared to the head of a ballpoint pen.

Purolite IP4

Polypropylene, Inert Polymer, Upflow Service Packed Beds (Puropack), Cylinder Shape

Overview

Principal Applications

- Strainer guard for Puropack systems
- Strainer guard for upflow service packed bed systems

Regulatory Approvals

- IFANCA Halal certified
- LPPOM MUI Halal certified
- Kosher certified

Typical Packaging

- 25 L sack
- 1 ft^3 box
- 5 ft^3 drum (fiber)
- 1 m^3 supersack
- 42 ft^3 supersack

Systems

- Upflow service packed bed systems
- Puropack packed bed systems

Advantages

- Protects upper nozzle plates from blockage
- Improves the distribution of regenerants during downflow regeneration
- Floats in water

Typical Physical & Chemical Characteristics

Polymer Structure:
Polypropylene

Appearance:
Cylinders

Diameter:
1.1–1.5 mm

Length:
0.8–1.6 mm

Specific Gravity:
0.8–0.9

Bulk Density:
500–600 g/L (31.2–37.5 lb/ft^3)

Temperature Limit:
100 °C (212.0 °F)

Purolite IP4 polymer.

Purolite IP4 polymer compared to the head of a ballpoint pen.

Purolite IP7

Polyacrylic, Inert Polymer, Blue Color, Trilite Mixed Bed System

Overview

Principal Applications

Interface between cation and anion resins

Typical Packaging

- 25 L sack
- 1 ft^3 box
- 5 ft^3 drum (fiber)
- 1 m^3 supersack
- 42 ft^3 supersack

Systems

Trilite systems

Advantages

- Blue color, suitable for gel and macroporous mixed beds
- Separates cation and anion resin

Typical Physical & Chemical Characteristics

Polymer Structure:
Polyacrylic

Appearance:
Spherical beads

Particle Size Range:
0.63–0.85 mm

Uniformity Coefficient (max.):
1.2

Specific Gravity:
1.12–1.16

Shipping Weight (approx.):
680–710 g/L (42.5–44.4 lb/ft^3)

Temperature Limit:
100 °C (212.0 °F)

Purolite IP7 polymer.

Purolite IP7 polymer compared to the head of a ballpoint pen.

Purolite IP9

Polyvinylchloride, Inert Polymer, Underbed Applications

Overview

Principal Applications

Bottom layer in industrial water applications

Typical Packaging

- 25 L sack
- 1 ft^3 box
- 5 ft^3 drum (fiber)
- 1 m^3 supersack
- 42 ft^3 supersack

Systems

- Demineralization systems
- Dealkalization systems
- Softening systems

Advantages

- Heavier than water treatment resins
- Regeneration chemical resistant

Typical Physical & Chemical Characteristics

Polymer Structure:
Polyvinylchloride

Appearance:
Light blue lenses

Length:
4.5–5.5 mm

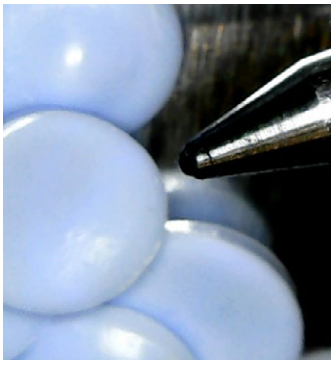
Width:
4.5–5.5 mm

Thickness:
2.0–3.0 mm

Shipping Weight (approx.):
850-950 g/L (53.1-59.4 lb/ft^3)

Temperature Limit:
70 °C (158.0 °F)

Purolite IP9 polymer.



Purolite IP9 polymer compared to the head of a ballpoint pen.

Purolite IP4300

Polystyrenic, Inert Copolymer, Plastic Bead, Fine Grade

Overview

Principal Applications

Mechanical lubrication

Typical Packaging

- 25 L sack
- 1 ft^3 box
- 5 ft^3 drum (fiber)
- 1 m^3 supersack
- 42 ft^3 supersack

Systems

Well drilling operations

Advantages

- Reduces casing wear
- Non–abrasive
- Thermally stable to 230 °C (450 °F)
- Reduces torque and drag
- Compatible with water-based, oil-based and synthetic-based mud systems
- Lowers the instance of differential in depleted, under balanced formations
- Minimal environmental impact

Typical Physical & Chemical Characteristics

Polymer Structure:
Polystyrene crosslinked with divinylbenzene

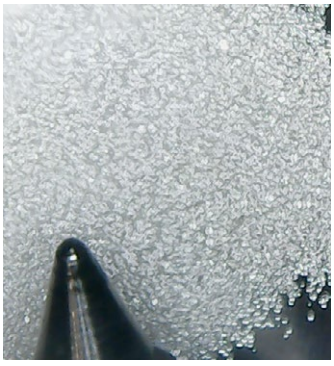
Appearance:
Clear, fine beads

Particle Size Range:
100–350 µm

Residual Moisture (max.):
5%

Standard Packaging Weight Dry Substance:
22.6 Kg (49.8 lb)

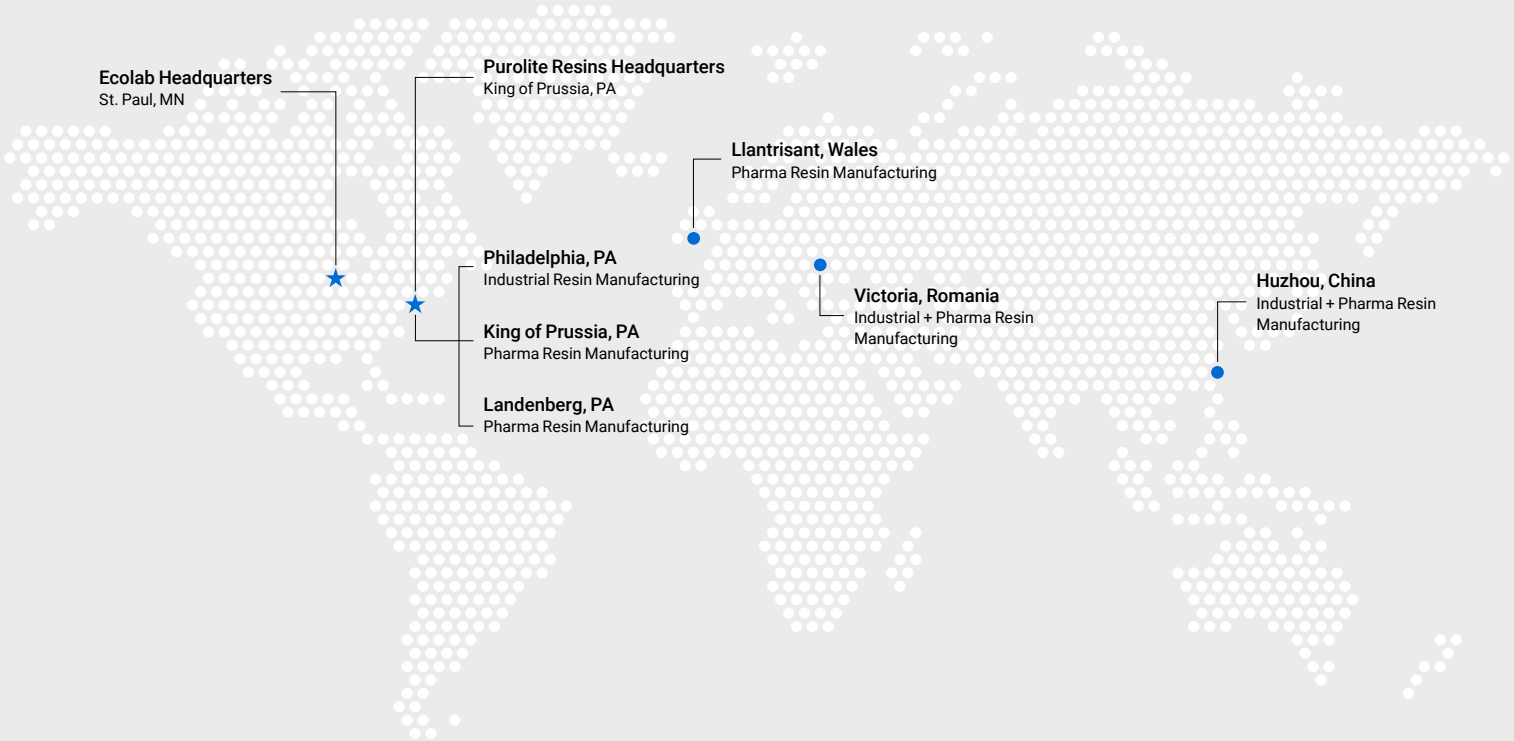
Purolite IP4300 polymer.



Purolite IP4300 polymer compared to the head of a ballpoint pen.

Ecolab is a global developer, manufacturer, and supplier of Purolite™ Resins including ion exchange, catalyst adsorbent and advanced polymers that make the world cleaner and healthier.

PuroliteResins.com



We're ready to solve your process challenges.

For further information on products and services, visit PuroliteResins.com or complete a Contact Us form via PuroliteResins.com/contact-us or use the QR code.

Contact Us Form:

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