

# Packaging Brochure



## Global Solutions

Purolite supplies a complete range of ion exchange, adsorbent and specialty resins that are formulated and manufactured for optimum performance in a wide array of applications.

Customer satisfaction begins with innovative product development, reliable production and consistent performance.

We produce and ship our products globally, so we are well versed in the latest international packaging standards and shipping regulations.

Purolite's packaging options ensure that products are delivered to you in containers that work for you. Whether bags, drums, boxes, bulk bags or tankers are needed, Purolite will supply the product you need in logistically efficient packaging that keeps your product secure and protected during transport and storage.

Packaging options range from small bags to bulk bags, small boxes to large bulk boxes, fiber drums to steel drums, and plastic pails to plastic kegs. Each option represents the optimal mix of performance and value to best fit your needs.



# Bulk Bags

Bulk bags, also called FIBCs, are very cost effective for shipping and storing large quantities of resins.

Bulk bags have integrated features that allow for easy emptying and safe material handling. The filled bags are sized correctly for standard pallets and feature lift straps for easy handling.

- The most economical option for shipments
- Durable and flexible bags are made from 6 oz. woven polypropylene
- UV treated to protect from degradation
- Coated for moisture protection; bulk bags are not waterproof
- Maintains shape when filled; designed for optimal product flow
- Features 4 lifting straps made from strong, closely woven fabric for easy, safe lifting with forklift or overhead crane
- Integrated document sleeve prominently displays product name
- Dust-proof filler cord helps prevent product from passing through seams
- Type A conductivity rating; no static control
- Single trip 5:1 Safety Factor Ratio
- Liner available, by request
- Ships band fastened to a standard wood pallet. Available with high-strength 6-mil shrink or stretch wrap for additional stability, by request
- Choose 1.0 m³ (35 ft³) or 1.2 m³ (42 ft³) size



Four durable straps for easy, safe lifting.



Bulk bags are securely strapped to pallet that features reinforced slats for increased strength.



Integrated document sleeve prominently displays product name.

Bulk Bags*							
Description m <sup>3</sup> (ft <sup>3</sup> )	Dimensions cm (in)	Wt. Capacity kg (lb)	Body Style	Lifting loops (Dimension)	Material	Inlet Type (Dimension)	Outlet Type (Dimension)
1.0 m³ (35 ft³)	89 x 89 x 102 (35 x 35 x 40)	1088 (2400)	Circular	4 25 cm (10 in)	Woven PP	Duffel 81 cm (32 in) H	Flat with Pajama Cover 35.6 x 45.7 cm (14 x 18 in)
1.2 m³ (42 ft³)	104 x 104 x 107 (41 x 41 x 42)	1150 (2535)	Baffled U-Panel	4 25 cm (10 in)	Woven PP	Skirt 90 cm (35 in) H	Spout with Star Closure 50 cm Dia. x 55 cm H (20 in Dia. x 22 in H)

<sup>\*</sup>Characteristics of bulk bag are typical and are subject to change without notification.

Purolite Plants using Bulk Bags

## Bulk Boxes

Large, sturdy corrugated fiberboard boxes are excellent for shipping bulk resins. Boxes provide a convenient option for land transport and are suitable for operations that are not subject to rough handling or storage in adverse conditions. Each container contains a protective liner bag and easy lift-off tops. Shipped securely strapped on a standard wooden pallet.

- Multi-wall side panels with optimized flute styling for ideal padding strength and crush resistance
- Easy on/off lid
- 2 mil PE bag liner offers product protection; double lining is available upon request
- Ships band fastened to pallet. Can also be shrink or stretch wrapped for added stability, if requested
- Ships complete with pallet for motor freight delivery
- 100% recyclable and biodegradable
- FDA compliant
- Choose .57 m<sup>3</sup> (20 ft<sup>3</sup>) or 1.1 m<sup>3</sup> (40 ft<sup>3</sup>)



Bulk boxes are band fastened to prevent slippage. Boxes can also be film wrapped for added stability.

Purolite Plants using Bulk Boxes

China | Romania | USA



All bulk boxes come with a single- or doubleliner bag for added product protection.

Bulk Boxes*												
Description m <sup>3</sup> (ft <sup>3</sup> )	Dimensions cm (in)	Wt. Capacity kg (lb)	Style	Material	Thickness	Construction						
.57m³ (20 ft³)	107 x 81 x 71 (42 x 32 x 28)	680 (1,499)	Flange Top HSC	Corrugated fiberboard	5-ply	Double Wall Corrugated						
1.1 m³ (40 ft³)	107 x 107 x 97 (42 x 42 x 38)	816 (1,799)	Flange Top HSC	Corrugated fiberboard	5-ply	Double Wall Corrugated						

<sup>\*</sup>Characteristics of bulk boxes are typical and are subject to change without notification.

# Standard Fiber Drums

Cellulose kraft fiber drums are lightweight, yet provide the necessary strength and heavy-duty construction for rough handling and stacking tiers. The drums can be supplied with either single or double linings to help ensure the contents are protected from high-humidity environments.

Fiber drums are used to supply all products except UltraClean™ (UCW), Purolite® nuclear grade (NRW), Purolite pharmaceutical APIs and excipients, and Purolite® mixed bed (MB) ion exchange resins.

Purolite Plants using Standard Fiber Drums

- · Lightweight and durable
- Lever-locking steel band holds lid in place; easy to open and close
- Full open top assures quick filling and dispensing
- Fiber lid protects product from external debris
- Compatible with tamper-evident seals
- Top and bottom steel chimes provide extra support and safer handling
- Single or double polyethylene bag liners protect contents
- Ships stretch-wrapped to pallet with high-performance film for ultimate load containment and protection
- Choose .05 m<sup>3</sup> (2 ft<sup>3</sup>), .14 m<sup>3</sup> (5 ft<sup>3</sup>) or .2 m<sup>3</sup> (7 ft<sup>3</sup>)



Standard Fiber Drums*												
Description	Color	Lid Material	Sealing Method	Dimensions cm (in)	Fill Capacity L (gal)	Packaging Plant						
.05 m³ (2 ft³) drum	Brown	Kraft Fiber	Lever-lock	40 x 58 (15.7 x 22.8)	50 (13.2)	China						
.14 m³ (5 ft³) drum	Brown	Kraft Fiber	Lever-lock	45 x 91 (17.7 x 35.8)	144 (38)	China						
.14 m³ (5 ft³) drum	Brown	Kraft Fiber	Lever-lock	47 x 85 (18.5 x 33.46)	146 (38.5)	USA						
.2 m³ (7 ft³) drum	Brown	Kraft Fiber	Lever-lock	56 x 81 (22 x 31.8)	200 (55)	China						
.2 m³ (7 ft³) drum	Brown	Kraft Fiber	Lever-lock	54.6 x 87.6 (21.5 x 34.5)	200 (55)	USA						
.2 m³ (7 ft³) drum	Brown	HDPE	Lever-lock	57.1 x 80.5 (22.4 x 31.6)	207 (55)	Romania						

<sup>\*</sup>Characteristics of standard fiber drums are typical and are subject to change without notification.



The interior of each Standard Fiber Drum is lined with a polyethylene bag to protect resin from humidity and debris.



Standard Fiber Drums can incorporate tamper-evident seals.

# Pharmaceutical Fiber Drums

Pharmaceutical drums are packed in a Class D ISO 14644 cleanroom to control contamination from airborne particles.

- Used exclusively for pharmaceutical product
- Blue exterior for easy identification
- Multi-layer durable body with gloss acrylic copolymer base coating provides UV resistance and facilitates easy procedural cleaning
- Leaded seal for ultimate tamper protection
- Lever-locking steel band holds lid in place; easy to open and close



Purolite Packing Facility for Pharmaceutical Fiber Drums

Romania

- Molded HDPE plastic open-top lid fits tight to protect product from external debris
- Bonded external plastic base ring helps prevent moisture ingress and corrosion
- Internal coating prevents fiber shedding

- Double lined with Cleanflex® bag liners produced in a Class-5 clean production facility for reduced particle contamination
- Ships band fastened to pallet with additional high-performance spun wrapped film for ultimate load containment and protection

Pharmaceu	utical Fiber	Drums			
Drum Description	Dimensions cm (in)	Product	Quantity/ Net Wt.	Gross Wt.*	Product Type**
		Purolite® C100CaMR	50 kg	53 kg	CPS
		Purolite® C100EMR/4395	50 kg	53 kg	SPS
Com all	40.5 x 65	Purolite® C115KMR	25 kg 50kg	28 kg 54.5 kg	PP
Small I	(16 x 25.6)	Purolite®C115KMR/5100	25 kg 50kg	28 kg 54.5 kg	PP
		Purolite® C100MR/5035	50 kg	53 kg	SPS
		Purolite® C100MRNS	50 kg	53 kg	SPS
		Purolite® A430MR	50 kg	54.5 kg	С
		Purolite® C100EMR/4395	90 kg	94.5 kg	SPS
Medium	49 x 84.2 (19 x 33)	Purolite® C100MR/5035	90 kg	94.5 kg	SPS
	(10 % 00)	Purolite® C100MRNS	90 kg	94.5 kg	SPS
		Purolite® C108Dr	50 kg	54.5 kg	WAC
Laure	58.3 x 91.4	Purolite® A430MR	90 kg	98 kg	С
Large (23 x 36)		Purolite® C115HMR	100 kg	108 kg	PA

<sup>\*</sup> Pharmaceutical products are packed by weight according to customer requirements.

### Steel Drums

- Welded carbon steel body securely contains resins for storage and transport
- Enamel coated for rust protection
- Rolling hoops for added rigidity
- Open top with durable EPDM gasket and 12-gauge bolt ring keeps contents secure
- Includes a single or double polyethylene bag liner for additional moisture protection
- · Ships shrink or film-wrapped to pallet
- · Available only upon request

#### Purolite Plants using Steel Drums



Steel Drum*							
Drum Description L (gal)	Color	Lid Material	Sealing Method	Lid Style	Dimensions cm (in)	Thickness (lid/body/base) (mm)	Fill capacity kg (lb)
200 (55)	Variable	Carbon steel	Bolt lock	Open head	55.9 x 81.3 (22 x 32)	1.1/0.9/1.1	300 (661)

<sup>\*</sup>Purolite supplies resins in reconditioned steel drums. Characteristics are typical and are subject to change without notification.

<sup>\*\*</sup> C = Cholestyramine; CPS = Calcium Polystyrene Sulfonate; SPS = Sodium Polystyrene Sulfonate; PP = Polacrilin Potassium; WAC = Weak Acid Cation Ion Exchanger; PA = Polymethacrylic Acid

# Small Bags and Boxes

Polyethylene bags and fiberboard boxes are available for most of our products that are purchased in smaller quantities.

Bags are highly vapor and moisture resistant (MVTR < 4 gr/sqm/24hr @32°C & 90% RH) to ensure long storage stability, and are heat sealed during packaging to further enhance longevity. FDA compliant.

Boxes easily stack for convenient storage. They are also certified and approved for expedited shipping. Each includes a clear polyethylene liner for product containment. Opaque white PE bags can also be placed inside a 1.0 ft³ box for shipment.

Palletized small bags and boxes ship band-fastened to the pallet with shrink wrap for added load protection.

Purolite Plants using Small Bags and Boxes









Small Bags	and Boxes*									
Description	Dimensions cm (in)	Opening mm (in)	Capacity L (ft <sup>3</sup> )	Material	Color	Seal	Dispensing	Temp Limit °C (°F)	Thickness	Packing Plant
25 L Gusset Bag	40 x 10 x 76 (15.7 x 4 x 30)	398 (15.7)	25 (1.0)	Opaque Film	White	Heat	Open Mouth	70 (158)	140 µm	China, Romania
25 L Valve Bag	45 x 54 x 12.5 (17.7 x 21.2 x 4.9)	120 (4.72)	25 (1.0)	Opaque Film	White	Valve	Integrated Valve	70 (158)	140 µm	China, USA, Romania
1 ft³ Valve Bag	47 x 53 x 12.5 (18.5 x 21 x 4.9)	130 (5.1)	25 (1.0)	Opaque Film	White	Valve	Integrated Valve	70 (158)	140 µm	China, USA
1.0 ft <sup>3</sup> Box	35.6 x 50.8 x 20.3 (14 x 20 x 8)	NA	25 (1.0)	Corrugated Fiberboard	Brown	Tape	N/A	N/A	Single Wall	USA

<sup>\*</sup>Characteristics of small bags and boxes are typical and are subject to change without notification.

# Plastic Kegs for UltraClean, Nuclear and Mixed Bed Products

Purolite Plants using Plastic Kegs

China | Romania | USA

Purolite packages UltraClean™ (UCW), Purolite® nuclear grade (NRW), and Purolite® mixed bed (MB) ion exchange resins in premium plastic kegs. Each features a large open top that allows for easy removal of resin while discharging the container. These plastic kegs are ideal for overseas shipments.



Plastic Kegs	*										
Description	Color	Material	Sealing method	Lid style	Dimensions cm (in)	Thickness mm (in)	Fill Capacity L (gal)	Safe work load kg (lb)	Bungs	Handles	Packing Plant
25 L (6 gal) Keg	Blue	HDPE	Screw top	Open head	31.7 x 44.7 (12.4 x 17.6)	1.2 (.04)	25 (6.6)	250 kpa	1	Yes	China
50 L (13 gal) Keg	Blue	HDPE	Screw top	Open head	38.4 x 58.0 (15.1 x 22.8)	1.8 (.07)	50 (13.2)	62 (136)	1	Yes	China
50 L (13 gal) Keg	Blue	HDPE	Lever lock	Open head	39.8 x 61.5 (15.6 x 24.2)	2 (.08)	63 (17)	88 (194)	No	Yes	USA
60 L (16 gal) Keg	Blue	HDPE	Lever lock	Open head	38.5 x 59.1 (15.1 x 23.2)	2 – 3 (.08 – .11)	60 (15.8)	n/a	No	Yes	Romania
200 L (52 gal) Keg	Blue	HDPE	Screw top	Open head	58 x 98 (22.8 x 38.5)	3.4 (.13)	200 (52.8)	200 kpa	1	No	China

<sup>\*</sup>Characteristics of plastic kegs are typical and are subject to change without notification.

- Rigid HDPE construction for lasting durability
- Thick walls for strength and impact resistance
- Excellent moisture protection
- Lever-lock ring assembly
- Compatible with tamper indicators

- Smooth walls are easy to empty and wipe clean
- Corrosion-resistant HDPE lid with rubber gasket is easy to open, close and seal
- Comes with a single or double PE bag liner
- Ships stretch-wrapped to pallet for load protection

# Plastic Pails and Tubs

Versatile and durable semi-rigid molded pails and tubs are excellent for holding and storing small amounts of resin. Polypropylene containers help protect resins from moisture and dirt. Tapered shape can be safely stacked with lids on or nested when empty, while handles make moving easy and safe.

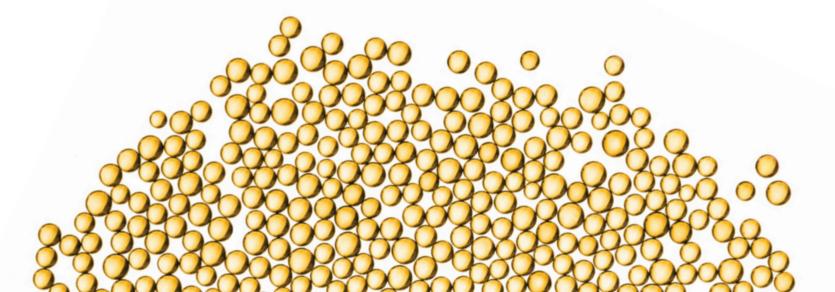
- Purolite Plants using Plastic Pails and Tubs
- Romania

- Molded polypropylene construction is lightweight and durable
- Smooth walls
- Non-locking, gasket-free lid with easy open/close operation
- Reinforced rim adds rigidity
- Attached handles make easier work of carrying and loading
- Good moisture barrier
- Tapered body for safe stacking
- Includes a PE bag liner



Plastic Pai	Plastic Pails and Tubs*												
Description	Color	Material	Sealing method	Lid style	Dimensions cm (in)	Thickness mm (in)	Fill Capacity L (gal)	Safe work load kg (lb)	Bungs	Handles			
30 L Tub	White	PP	Snap	Open head	39.0 x 39.0 (15.4 x 15.4)	1.75 (.07)	32 (8.5)	80 (176)	1	Yes			
5 L Pail	Red	PP	Snap	Open head	20.9 x 19.2 (8.2 x 7.5)	1.05 (.04)	5.65 (1.49)	8 (17.6)	No	Yes			

<sup>\*</sup>Characteristics of plastic pails and tubs are typical and are subject to change without notification.



## Tanker Delivery

Bulk deliveries provide an efficient, cost-effective delivery option for many customers. The use of our tanker trucks enable faster, cleaner, more efficient loading of resins—which translates into cost savings.

Our highly skilled customer service team and technical operators coordinate every detail of your shipment, making material management easy, efficient and safe.

Purolite can accommodate large-scale deliveries for high-volume applications from our Philadelphia, USA location. Our tank trucks hold 800 ft<sup>3</sup> ion exchange resins.

- Fast loading ability to load up to 800 ft<sup>3</sup> of resin in under two hours
- Reduced downtime less time loading means more time in service
- Save on labor costs limited labor is required to load the resin directly into a tank
- Clean, direct transfer eliminates manual handling and potential for slippery, hazardous wet floors
- Eliminate disposal costs Bulk

- transfer requires no packaging, and no packaging disposal
- Alleviate space and storage issues –no warehousing or storage of resin is required prior to loading
- Resin is loaded directly into tanks; excellent for plants without adequate space for staging
- Ideal for hard-to-access spaces;
   Resin can be loaded into elevated tanks or tanks located distances away

Locations where Bulk Delivery is Available

Canada | US



# Sample Containers for Process Evaluations

Controlled lab-scale column trials generate useful, meaningful data on resin effectiveness for a given process, and can become the basis of a successful full-scale system. Purolite can provide resin samples upon request for testing and evaluating the effectiveness of ion exchange and adsorbent resins during initial lab-scale process trials.

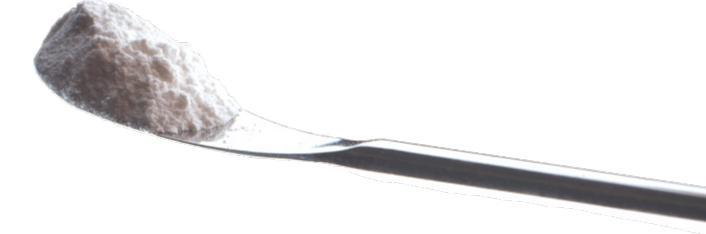
Purolite Plants using Sample Containers



- Rigid, clear polystyrene jars have glass-like clarity
- Smooth surface is slip resistant
- Wide neck facilitates easy emptying of contents
- Polypropylene lids provide a chemical-resistant, tight seal

Sample Containers*											
Description	Dimension mm (in)	Color	Capacity mL (oz)	Material	Neck Finish	Shape	Lid Style				
250 mL jar	89 x 65 (3.5 x 2.6)	Clear	250 (8.45)	Polystyrene	70 mm	Round	Unlined, ribbed				
480 mL jar	89 x 96 (3.5 x 3.75)	Clear	480 (16.2)	Polystyrene	70 mm	Round	Unlined, ribbed				
946 mL jar	90 x 150 (3.6 x 6)	Clear	946 (32)	Polystyrene	65 mm	Round	Unlined, ribbed				

<sup>\*</sup>Characteristics of sample containers are typical and are subject to change without notification.



Drums, Kegs, Tubs	and Pails						
Packaging Type	Color	Dimensions	Product Family	Packing Facility	Applicable Liners	Sealing Method	Shipping Options
.05 m³ (2 ft³) Standard fiber drum	Brown	40 x 58 cm (15.7 x 22.8 in)	All except UCW, NRW, MB and Pharma	China	Single or Double	Lever Lock	Truck — 8 per pallet
.14 m³ (5 ft³) Standard fiber drum	Brown	45 x 91 cm (17.7 x 35.8 in)	All except UCW, NRW, MB and Pharma	China	Single or Double	Lever Lock	Truck — 5 per pallet
.14 m³ (5 ft³) Standard fiber drum	Brown	47 x 85 cm (18.5 x 33.46 in)	All except UCW, NRW, MB and Pharma	USA	Single or Double	Lever Lock	Truck — 5 per pallet
.2 m³ (7 ft³) Standard fiber drum	Brown	56 x 81 cm (22 x 31.8 in)	All except UCW, NRW, MB and Pharma	China	Single or Double	Lever Lock	Truck —4 per pallet
.2 m³ (7 ft³) Standard fiber drum	Brown	54.6 x 87.6 cm (21.5 x 34.5 in)	All except UCW, NRW, MB and Pharma	USA	Single or Double	Lever Lock	Truck — 4 per pallet
.2 m³ (7 ft³) Standard fiber drum	Brown	52.1 x 80.5 cm (22.4 x 31.6 in)	All except UCW, NRW, MB and Pharma	Romania	Single	Lever Lock	Truck — 8 per pallet
200 L (55 gal) Steel drum	Variable	55.9 x 81.3 cm (22 x 32 in)	All except UCW, NRW, MB and Pharma	China, Romania, USA	Single or Double	Bolt Lock	Truck — 4 per pallet
Small Pharmaceutical drum	Blue	40.5 x 65 cm (16 x 25.6 in)	Pharma	Romania, USA	Double	Lever Lock	Truck — 5 per pallet
Medium Pharmaceutical drum	Blue	49 x 84.2 cm (19 x 33 in)	Pharma	Romania, USA	Double	Lever Lock	Truck — 4 per pallet
Large Pharmaceutical drum	Blue	58.3 x 91.4 cm (23 x 36 in)	Pharma	Romania, USA	Double	Lever Lock	Truck — 4 per pallet
30 LTub	White	39.0 x 39.0 cm ( 15.4 x 15.4 in)	All except UCW, NRW, MB and Pharma	Romania	Single	Snap	Truck — 16 per pallet
5 L Pail	Red	20.9 x 19.2 cm (8.2 x 7.5 in)	All except UCW, NRW, MB and Pharma	Romania	Single	Snap	Truck —40 per pallet
25 L (6 gal) Keg	Blue	31.7 x 44.7 cm (12.4 x 17.6 in)	UCW, NRW and MB	China	Single or Double	Screw top	Truck — 24 per pallet
50L (13 gal) Keg	Blue	38.4 x 58.0 cm (15.1 x 22.8 in)	UCW, NRW and MB	China	Single or Double	Screw top	Truck — 4 per pallet
50 L (13 gal) Keg	Blue	39.8 x 61.5 cm (15.6 x 24.2 in)	UCW, NRW and MB	USA	Single or Double	Lever lock	Truck — 4 per pallet
60 L (16 gal) Keg	Blue	38.5 x 59.1 cm (15.6 x 24.2 in)	UCW, NRW and MB	Romania	Single or Double	Leverlock	Truck — 5 per pallet
200 L (52 gal) Keg	Blue	58 x 98 cm (22.8 x 38.5 in)	UCW, NRW and MB	China	Single or Double	Screw top	Truck — 4 per pallet

Bags and Boxes	6						
Packaging Type	Color	Dimensions	Product Family	Packing Facility	Applicable Liners	Sealing Method	Shipping Options
1.0 m³ (35 cf) Bulk bag	White	89 x 89 x 102 cm (35 x 35 x 40 in)	All except UCW, NRW, MB and Pharma	China, Romania, USA	By request	Tie	Truck — 1 per pallet
1.2 m³ (42 cf) Bulk bag	White	104 x 104 x 107 cm (41 x 41 x 42 in)	All except UCW, NRW, MB and Pharma	China, Romania, USA	By request	Tie	Truck — 1 per pallet
25 L Gusset bag	White	40 x 10 x 76 cm (15.7 x 4 x 30 in)	All except UCW, NRW, MB and Pharma	China, Romania	None	Heat	Truck — 40 per pallet
25 L Valve bag	White	45 x 54 x 12.5 cm (17.7 x 21.2 x 4.9 in)	All except UCW, NRW, MB and Pharma	China, Romania, USA	None	Valve	Truck — 40 per pallet
1 ft³ Valve bag	White	47 x 53 x 12.5 cm (18.5 x 21 x 4.9 in)	All except UCW, NRW, MB and Pharma	USA, China	None	Valve	Truck — 42 per pallet
1.0 ft <sup>3</sup> Box	Brown	35.6 x 50.8 x 20.3 cm (14 x 20 x 8 in)	All except UCW, NRW, MB and Pharma	USA	Single or Double	Таре	Truck — 40 per pallet
.57 m³ (20 ft³) Bulk box	Brown	107 x 81 x 71 cm (42 x 32 28 in)	All except UCW, NRW, MB and Pharma	China, Romania, USA	Single or Double	Band Fastened	Truck — 1 per pallet
1.1 m³ (40 ft³) Bulk box	Brown	107 x 107 x 97 cm (42 x 42 x 38 in)	All except UCW, NRW, MB and Pharma	China, Romania, USA	Single or Double	Band Fastened	Truck — 1 per pallet

