

PDMPak[®] Bottle System for Pressurized Applications

*Liner-based bottle system for
critical material delivery*

The PDMPak[®] system for pressurized applications is a leading containment and dispense system that helps ensure that chemicals are protected throughout the filling, shipping and dispensing operations. The system includes a container which consists of a flexible liner inside a rigid overpack, a package closure and a dispense connector.

APPLICATIONS

- PDMPak systems are designed for applications that require indirect pressurization during the dispense process. Pressure delivery gas flows through the dispense connector into the region between the bottle and the liner, causing compression, collapsing the liner and delivering chemical.

FEATURES & BENEFITS

- Designed to meet rigorous chemical input pressure requirements
- Makes pumps more efficient by maintaining positive pressure to the inlet of the pump
- Shatter-resistant bottle helps improve safety
- Indirect pressure with its sealed delivery system ensures safe chemical delivery and helps prevent external contamination
- Liner-based system maximizes chemical utilization



PDMPak system for pressurized applications with SmartCap™ closure

SPECIFICATIONS

Rated capacity	PK-01-A4-T420-1 1-liter PK-04-A4-T420-1 4-liter												
	DO NOT overfill. There is a designed overhead capacity to accommodate the dispense system. The actual capacity should be used when filling the PDMPak to avoid process problems and potential overflows.												
Nominal weight of assembly (including temporary cap*)	1-liter 0.29 kg (0.63 lb) 4-liter 0.76 kg (1.68 lb)												
UV protection	Less than 0.1% light transmittance at 190–400 nm wavelength												
United Nations classification	A combination package with Entegris specified shipping box (Certified UN4G/Y: 4-liter size only)												
Overpack neck thread type	Modified 63 mm buttress thread; 4.24 mm (0.167") pitch												
Pressure dispense rating	The PDMPak is a pressure rated vessel. Maximum operating pressure: 1 atm gauge pressure (14.7 psig, 101.4 kPa)												
Country of manufacture	USA												
Materials of construction	<table border="1"> <tr> <td>Overpack</td> <td>Blow molded HDPE</td> </tr> <tr> <td>Chime</td> <td>Injection molded HDPE</td> </tr> <tr> <td>Liner</td> <td>PTFE film</td> </tr> <tr> <td>Fitment</td> <td>Injection molded natural virgin PFA</td> </tr> <tr> <td>Retainer</td> <td>Injection molded natural virgin HDPE</td> </tr> <tr> <td>Temporary cap</td> <td>Injection molded LDPE – red pigmented</td> </tr> </table>	Overpack	Blow molded HDPE	Chime	Injection molded HDPE	Liner	PTFE film	Fitment	Injection molded natural virgin PFA	Retainer	Injection molded natural virgin HDPE	Temporary cap	Injection molded LDPE – red pigmented
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Chime	Injection molded HDPE												
Liner	PTFE film												
Fitment	Injection molded natural virgin PFA												
Retainer	Injection molded natural virgin HDPE												
Temporary cap	Injection molded LDPE – red pigmented												
Manufacturing standards	<p>Fabricated and tested in a Class 5 Cleanroom as per International Standard ISO 14644-1:1999 Cleanrooms and associated controlled environments – Part 1: Classification of air cleanliness.</p> <table border="1"> <tr> <td>Film and seal defect detection</td> <td>Light table visual inspection</td> </tr> <tr> <td>Liner leak detection**</td> <td>Pressure decay tested</td> </tr> <tr> <td>Liner integrity verification***</td> <td>Pressurized burst tested Weld tensile strength tested</td> </tr> <tr> <td>Particle count verification</td> <td>Particle tested with ultrapure DI water</td> </tr> </table>	Film and seal defect detection	Light table visual inspection	Liner leak detection**	Pressure decay tested	Liner integrity verification***	Pressurized burst tested Weld tensile strength tested	Particle count verification	Particle tested with ultrapure DI water				
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Particle count verification	Particle tested with ultrapure DI water												
Cleanliness	<p>PDMPak contains a particle-certified liner.</p> <p>Product is not to exceed 125 particles per mL at ≥ 60 nm in ultrapure DI water.</p> <p>Product is not to exceed 55 particles per mL at ≥ 80 nm in ultrapure DI water.</p> <p>Product is not to exceed 20 particles per mL at ≥ 100 nm in ultrapure DI water.</p> <p>A Certificate of Analysis stating lot-specific particle count data is available for each shipment of product.</p>												
Extractable trace elements	<p>Product is not to exceed 2 ppb (parts per billion) total of extractable trace elements listed utilizing 5% Nitric acid. Trace elements reported are: Ag, Al, As, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, In, K, Li, Mg, Mn, Na, Ni, Pb, Si, Sn, Sr, Ti, V, W, and Zn. A Certificate of Analysis stating lot-specific trace element data is available for each shipment of product.</p>												
Total siloxanes****	Product is not to exceed 0.915 ppb												
Total volatile organic compounds****	Product is not to exceed 16.774 ppb												

*A temporary cap weighs 7 g (0.007 kg)

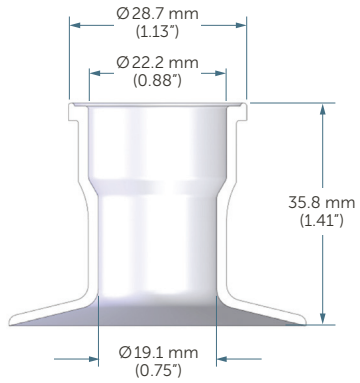
**Detection = every liner

***Verification = statistical sampling

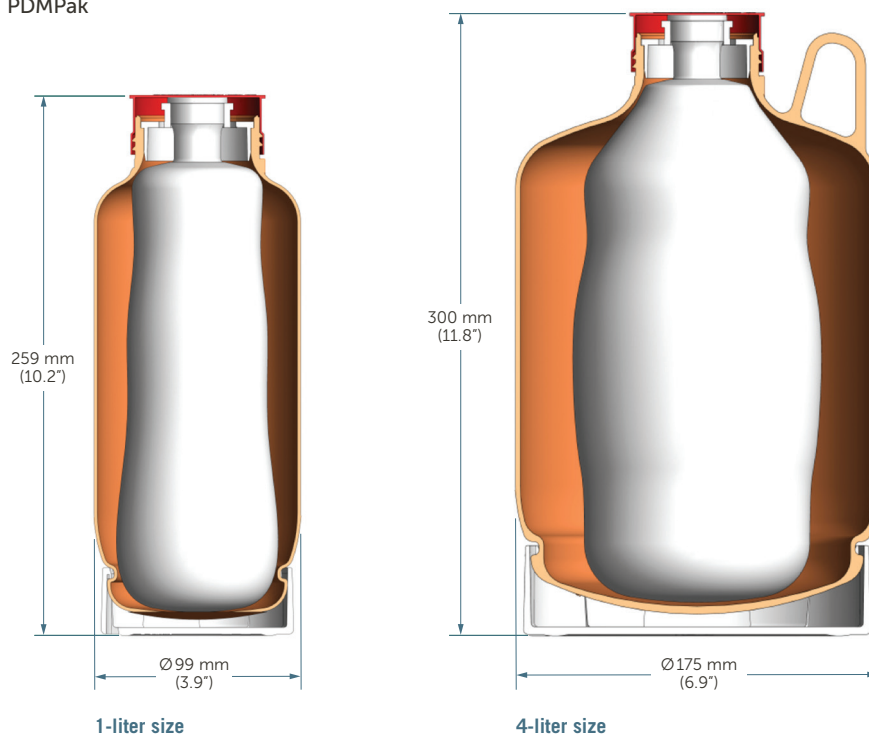
****Total siloxanes and volatile organic compounds specifications apply only to 4-liter size PDMPak bottle system assemblies and replacement liners.

DIMENSIONS

Fitment



PDMPak



Note: Unless otherwise indicated, all dimensions are nominal.

Item	Description	Quantity
1	Temporary cap	1
2	Liner	1
3	Fitment	1
4	Retainer	1
5	Overpack	1
6	Chime	1

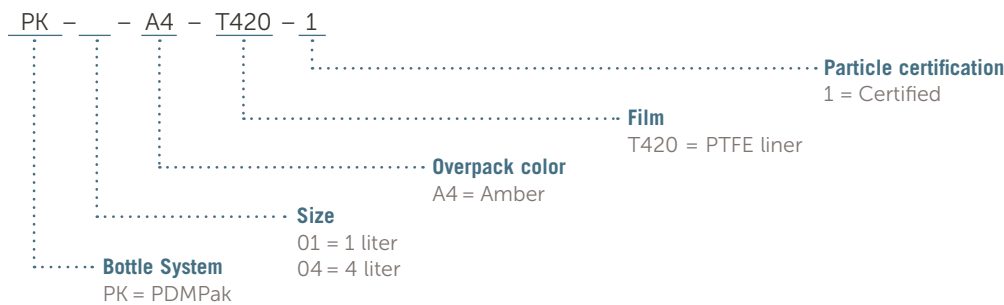
SHIPPING INFORMATION

Labeling	A liner barcode label showing the assembly part number, bottling batch number, and liner lot number is applied to the bottom surface of the overpack. The outer shipping box is labeled with part number, product description, bottle batch number, liner lot number(s), quantity and date of manufacture.
Packaging	PDMPak bottles are double-wrapped in a polyethylene bag and closed with a cable tie. The double-wrapped PDMPak bottles are placed into a shipping box made of corrugated fiberboard.

Part number	Size	Box quantity (minimum order quantity)	Skid quantity (economic order quantity)	Box dimensions (L x W x H)
PK-01-A4-T420-1	1 L	30	450 (15 boxes of 30)	851 mm x 343 mm x 324 mm (33.5" x 13.5" x 12.8")
PK-04-A4-T420-1	4 L	6	150 (25 boxes of 6)	660 mm x 457 mm x 356 mm (26" x 18" x 14")

ORDERING INFORMATION

PDMPak Bottle System for Pressurized Applications: part number



PDMPak bottle system accessories

Part number	Description
NCD-AA-AA	Dispense closure
SC-XX-YY-ZZ	SC type SmartCap with customer-specific key-code*
SCD-XX-YY-ZZ	SCD type SmartCap with customer-specific key-code*
SCG-XX-YY-ZZ	SCG type SmartCap with customer-specific key-code*
NA-51-A-XXYYZZ	Torque tool for SmartCap with keyed insert. Contains NA-51 torque tool body and NA-51-XXYYZZ keyed insert. NA-51 and NA-51-XXYYZZ are also available for purchase separately.
NA-47	Tear tab removal tool
NA-33	Torque wrench, 3/8", 0-150 lbf•in
NA-42	Torque tool adapter, SmartCap

*Contact Entegris to obtain customer-specific key-code.

LIMITED WARRANTY

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