

# PDMPak<sup>®</sup> Bottle System for Pressurized Applications

*Liner-based bottle system for critical material delivery*

The PDMPak<sup>®</sup> System for Pressurized Applications is a leading containment and dispense system that helps insure 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
- Eliminates the use of pumps
- 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



*The PDMPak System for Pressurized Applications with SmartCap™ closure, shown in amber color.*

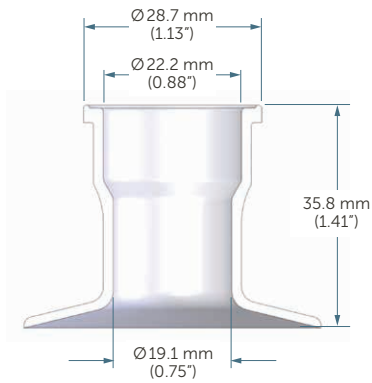
## SPECIFICATIONS

<b>Rated capacity</b>	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.		
<b>Nominal weight of assembly (including temporary cap*)</b>	1-liter	0.29 kg (0.63 lb)	
	4-liter	0.76 kg (1.68 lb)	
<b>UV protection</b>	Less than 0.1% light transmittance at 190–400 nm wavelength		
<b>United Nations classification</b>	A combination package with Entegris specified shipping box (Certified UN4G/Y: 4-liter size only)		
<b>Overpack neck thread type</b>	Modified 63 mm buttress thread; 4.24 mm (0.167") pitch		
<b>Pressure dispense rating</b>	The PDMPak is a pressure rated vessel. Maximum operating pressure: 1 atm gauge pressure (14.7 psig, 101.4 kPa)		
<b>Country of manufacture</b>	USA		
<b>Materials of construction</b>	Overpack	Blow molded HDPE	
	Liner	PTFE film	
	Fitment	Injection molded natural virgin PFA	
	Retainer	Injection molded natural virgin HDPE	
	Temporary cap	Injection molded LDPE – red pigmented	
<b>Manufacturing standards</b>	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.		
	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 ultra-pure DI water		
<b>Cleanliness</b>	PDMPak contains a particle-certified liner. Product is not to exceed 10 particles per mL at $\geq 0.15 \mu\text{m}$ in size. Product is not to exceed 5 particles per mL at $\geq 0.20 \mu\text{m}$ in size. A Certificate of Analysis stating lot-specific particle count data is available for each shipment of product.		
<b>Extractable trace elements</b>	Product is not to exceed 5 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.		
<b>Packaging</b>	Inner	PDMPaks are double-wrapped in two PE bags and closed with a cable tie	
	Outer	Corrugated fiberboard	
<b>Shipping information</b>		1-LITER SIZE	4-LITER SIZE
	Box quantity	30	6
	Skid quantity	450 (15 boxes of 30)	150 (25 boxes of 6)
	Box dimensions	851 mm L x 343 mm W x 324 mm H (33.5" L x 13.5" W x 12.8" H)	660 mm L x 457 mm W x 356 mm H (26" L x 18" W x 14" H)

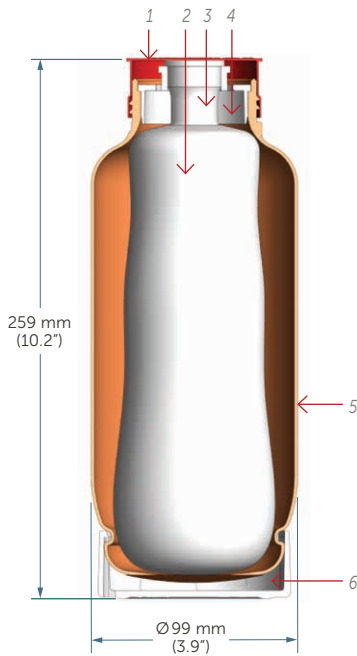
\*A temporary cap weighs 7 g (0.007 g)    \*\*Detection = every liner    \*\*\*Verification = statistical sampling

## DIMENSIONS

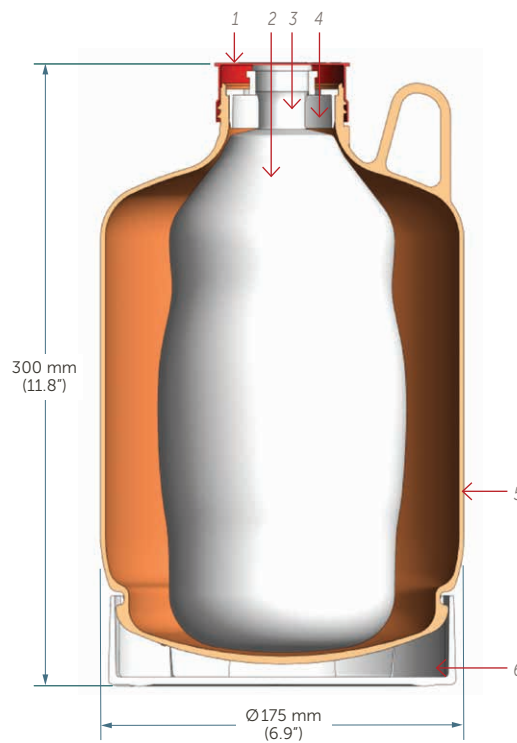
### Fitment



### PDMPak



1-liter size



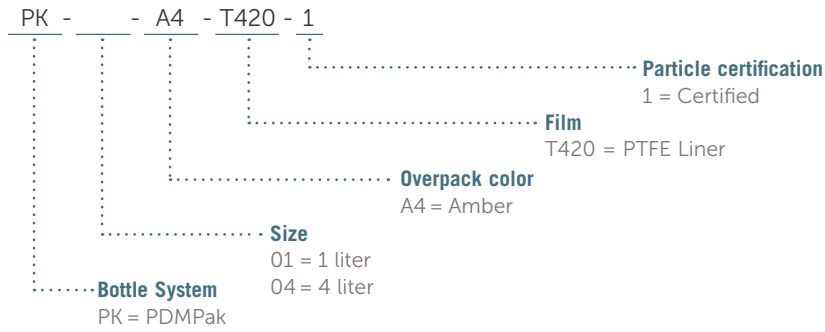
4-liter size

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

## 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.

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