

SONOCO
THERMOSAFE

TEMPERATURE ASSURANCE PACKAGING

...because every degree matters®



**Fisher
Scientific**

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INSULATION

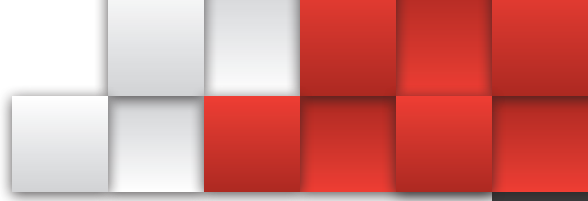
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WHAT KIND OF **PROTECTIVE PACKAGING** DOES YOUR PRODUCT NEED?

■ Does your product need to maintain a specific temperature?

YES

My product needs to remain frozen, refrigerated, or at controlled room temperature.

Proceed to next step.

NO

My product doesn't need to maintain a specific temperature, but I need a reliable shipping solution for my clinical or laboratory specimens that can withstand moderate shipping conditions and meets government regulations for safe transport.

See pages 25-35 for our line of diagnostic and infectious shippers.



■ Are you looking for a complete solution for a specific temperature range and time duration?

YES

1-5 DAYS (24-120 HOURS)

See pages 4-12 for our line of **Ready-Engineered Insulated Shipping Solutions**, available in an array of temperature ranges and shipping durations.



NO

My product doesn't require an engineered solution, but I am interested in insulated shippers.

1-2 DAYS (24-48 HOURS)

See pages 14-15 for our extensive line of **expanded polystyrene (EPS) insulated shippers**—the ideal solution for the safe storage and delivery of refrigerated or frozen materials.



≥ 2 DAYS (≥48 HOURS)

See pages 16-17 for our high performance **polyurethane (PUR) containers**, offering greater insulating capability that can meet the needs of the most demanding temperature-sensitive products.



≥ 3 DAYS (≥72 HOURS)

See page 18 for our **vacuum insulated panel (VIP) shippers** with thermal performance that far surpasses conventional foam boxes. This is the best choice for longer duration shipments of high value, temperature-sensitive products.



Need custom design or testing services?
See page 39 to learn about services available from ISC Labs®.

■ **NEXT STEP:** Selecting the Right Refrigerant (p. 19)



READY-ENGINEERED INSULATED SHIPPING SYSTEMS



	Envoy®	Certis®	Via® / Greenbox®
Benefit Summary	<p>EFFICIENT, SEASONAL PROTECTION</p> <ul style="list-style-type: none"> Numerous configurations available to meet a variety of needs Molded containers utilize natural convection to reduce weight and overall shipper size FEWER components, FASTER assembly, INCREASED operational efficiencies 	<p>ROBUST, UNIVERSAL PROTECTION</p> <ul style="list-style-type: none"> Optimized to provide the lowest total cost of ownership available Pre-Qualified: Choice of two different ambient profiles <ol style="list-style-type: none"> ISCSilver® Ambient Profile for moderate distribution environments ISCGold® Ambient Profile for more extreme shipping and storage conditions 	<p>REUSABLE/RETURNABLE</p> <ul style="list-style-type: none"> Ideal for clinical trial shipments or other high value payloads Utilizes VIP insulation and PureTemp® PCMs resulting in fewer components and lower weight, decreasing total cost of ownership ZERO BENCH-TIME® refrigerant design means no waiting—greatly simplifies and accelerates the assembly process
Transit Duration	1-2 Days	2-5 Days	2-5 Days
Insulation	EPS	EPS, PUR, or VIP	VIP

READY-ENGINEERED PRODUCT PORTFOLIO HEAT MAP

LITERS	SPECS	1 DAY		2 DAY			3 DAY			4 DAY			5 DAY	
		ENVOY	GREENBOX	ENVOY	CERTIS/ NOMADIC	VIA/ GREENBOX	ENVOY	CERTIS/ NOMADIC	VIA/ GREENBOX	ENVOY	CERTIS	VIA/ GREENBOX	CERTIS	GREENBOX
1-3	REFRIGERATED	ED4R1	3600126	03531700 Summer 03531701 Winter	03600123 (Nomadic)	3600127		C3R3	V3R3					
	CRT										3531241	V3C4	3531242	
	FROZEN					3531240		E48A* (Nomadic)	3531244	3531716				
4-6	REFRIGERATED	ED5R1		03531702 Summer 03531703 Winter				coming soon- C6R3*			V5R4		C6R5*	
	CRT			03531708 Summer 03531709 Winter				3531201			3600131		C6C5*	3531246
	FROZEN		3531243					coming soon- C6F3*		3531717			C6F5*	
7-10	REFRIGERATED		3600128		22031871 (Nomadic)			3531202	V10R3		C10R4			
	CRT			03531710 Summer 03531711 Winter								3531245		
	FROZEN							E280CA				3531247		
11-15	REFRIGERATED			03531704 Summer 03531705 Winter		V12R2		3531203					coming soon- C14R5*	
	CRT							coming soon- C14C3*			CCUS4XE		coming soon- C14C5*	
	FROZEN							coming soon- C14F3*		3531718			coming soon- C14F5*	
16-25	REFRIGERATED	ED22R1S* ED22R1W*		03531706 Summer 03531707 Winter			E22R3S/W*		3600132				3531204	
	CRT			03531712 Summer 03531713 Winter										3531248
	FROZEN									3531719				
26-50	REFRIGERATED				CRUS2LP			coming soon- C26R3*					C26R5*	
	CRT			03531714 Summer 03531715 Winter				coming soon- C26C3*					C26C5*	
	FROZEN							CCUS3LP					C26F5*	
51+	REFRIGERATED							coming soon- C56R3*					coming soon- C56R5*	
	CRT							coming soon- C56C3*					coming soon- C56C5*	
	FROZEN							coming soon- C56F3*					coming soon- C56F5*	

* Contact your Fisher Sales Representative for availability



Envoy®

EFFICIENT, SEASONAL SOLUTIONS

Numerous configurations available to meet a variety of needs

The ThermoSafe Envoy series features a vast selection of temperature ranges for 2-day shipments of temperature sensitive products. Utilizing standardized materials with the lowest packaging cost available, these efficient and easy-to-assemble shippers are ideal for shipping pharmaceuticals, clinical treatments, and diagnostic samples.



	Model		Payload (liters)	Weight lb [kg]		Payload I.D. in [mm]			Shipper O.D. in [mm]		
	Summer	Winter		Summer	Winter	L	W	H	L	W	H
	REFRIGERATED 2-8° C										
	03531700	03531701	2.5	17.4 [7.9]	12.4 [5.6]	9.01 [229]	7.99 [203]	2.13 [54]	16.7 [425]	15.75 [400]	16.26 [413]
	03531702	035317013	6.4	23.4 [10.6]	20.8 [9.4]	8.86 [225]	7.87 [200]	5.63 [143]	16.7 [425]	15.75 [400]	21.26 [540]
	03531704	03531705	12.1	36.1 [16.4]	28.9 [13.1]	11.14 [283]	9.6 [244]	6.89 [175]	20.51 [521]	19.01 [483]	20.75 [527]
	03531706	03531707	24.1	63.3 [28.7]	43.0 [19.9]	19.76 [502]	11.26 [286]	6.61 [168]	29.02 [737]	20.51 [521]	21.26 [540]
CRT 15-25° C											
	03531708	03531709	4.5	14.2 [6.4]	10.0 [4.5]	7.99 [203]	7.01 [178]	4.88 [124]	16.7 [424]	15.75 [400]	16.26 [413]
	03531710	03531711	8.1	19.2 [8.7]	14.2 [6.4]	7.99 [203]	7.01 [178]	8.87 [225]	16.7 [424]	15.75 [400]	21.26 [540]
	03531712	03531713	18.2	28.8 [13.1]	19.4 [8.8]	11.14 [283]	9.61 [244]	10.47 [266]	20.51 [521]	19.01 [483]	20.75 [527]
	03531714	03531715	39.6	49.8 [22.6]	32.8 [14.9]	19.76 [502]	11.26 [286]	10.87 [276]	29.02 [737]	20.51 [521]	21.26 [540]
FROZEN -20° C											
	03531716		2.5	23.8 [10.8]		9.01 [229]	7.99 [203]	2.13 [54]	16.7 [424]	15.75 [400]	16.26 [413]
	03531717		5.6	31.8 [14.4]		9.01 [229]	7.99 [203]	4.76 [121]	16.7 [424]	15.75 [400]	21.26 [540]
	03531718		12.1	49.2 [22.3]		11.14 [283]	9.6 [244]	6.89 [175]	20.51 [521]	19.01 [483]	20.75 [527]
	03531719		24.1	88.9 [40.3]		19.76 [502]	11.26 [286]	6.61 [168]	29.02 [737]	20.51 [521]	21.26 [540]

ENVOY DIRECT:

Envoy Direct solutions are simple, economic designs providing cost effective temperature control and optimized dimensional weight to reduce transportation costs. Designed to the ISTA 7E profile for 24 hour protection.

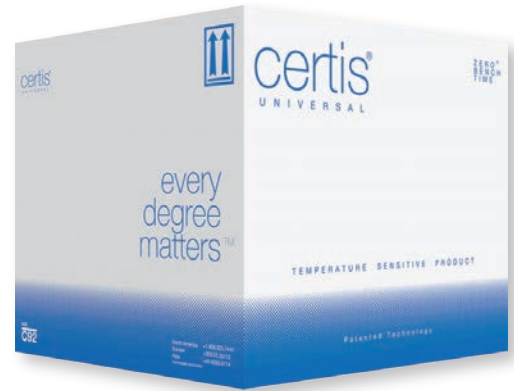
	Model	Payload (liters)	Weight lb [kg]	Dim. Weight lb [kg]	Payload I.D. in [mm]			Shipper O.D. in [mm]			Refrigerant Required per Shipper*	Components Included
					L	W	H	L	W	H		
REFRIGERATED 2-8° C												
	ED4R1NC	3.5	13 [5.9]	13 [5.9]	9.25 [235]	9.25 [235]	2.50 [64]	14.29 [367]	14.29 [363]	11.28 [292]	(2) PP42 42oz. Gel Packs	EPS Pads Only, No Corrugate
	ED5R1NC	4.9	17 [7.7]	16 [7.3]	10.75 [235]	9.25 [235]	3.00 [76]	15.86 [403]	14.31 [365]	11.50 [292]	(2) 03600104 48oz. Gel Packs	EPS Pads Only, No Corrugate
	ED4R1	3.7	16 [7.3]	17 [7.7]	9.00 [226]	9.00 [226]	3.00 [73]	14.88 [387]	15.04 [387]	12.47 [318]	(2) FPP39 39oz. Foam Bricks	Outer Corrugate, Corepack & EPS Pads
	ED5R1	5.6	20 [9.1]	19 [8.6]	10.38 [267]	8.88 [229]	3.38 [92]	16.50 [422]	15.15 [384]	13.12 [330]	(2) 22031893 56oz. Foam Bricks	Outer Corrugate, Corepack & EPS Pads

Certis®

ROBUST, UNIVERSAL SOLUTIONS

Optimized to provide the lowest total cost of ownership available

- Pre-Qualified—Choice of two different ambient profiles: ISCGold® and ISCSilver®
- Material Neutral Approach—utilizing leading edge technologies to provide the lowest total cost of ownership. Designed solutions reduce the amount of weight, packout complexity, and overall size resulting in reduced shipping costs.
- Designs feature PureTemp® Vegetable Based Phase Change Material—natural phase change materials provide strict temperature control and greater efficiency resulting in packages that are smaller and lighter.



	Model	Payload (liters)	Duration	Weight lb [kg]	Dim. Weight lb [kg]	Insulation	Payload I.D. in [mm]			Shipper O.D. in [mm]		
							L	W	H	L	W	H
Certis Gold: ISCGold® Ambient Temperature Profile												
REFRIGERATED 2-8° C	03531201	4.8	3 DAY	40.0 [18]	52.0 [23]	PUR	8.50 [216]	6.25 [159]	5.50 [140]	21.25 [540]	21.25 [540]	19.00 [483]
	03531202	7.7	3 DAY	50.0 [23]	66.0 [30]	PUR	10.50 [267]	9.00 [229]	5.00 [127]	23.75 [603]	23.75 [603]	19.50 [495]
	03531203	12.4	3 DAY	55.0 [25]	82.0 [37]	PUR	10.50 [267]	9.00 [229]	8.00 [203]	27.75 [705]	23.00 [584]	21.25 [540]
	03531204	19.6	5 DAY	80.0 [36]	59.0 [27]	VIP	14.50 [369]	8.25 [210]	10.00 [254]	24.75 [629]	18.75 [476]	21.00 [533]
Certis Silver: ISCSilver® Ambient Temperature Profile												
REFRIGERATED 2-8° C	CRUS2LP	30.0	2 DAY	49.7 [23]	65.8 [30]	PUR	16.63 [422]	11.75 [298]	9.50 [241]	24.13 [613]	22.50 [572]	20.13 [511]
	C3R3	3.2	3 DAY	14.4 [7]	9.1 [4]	VIP	7.56 [192]	7.19 [183]	3.63 [92]	12.75 [324]	10.75 [273]	11.00 [279]
	03531217	14.7	3 DAY	36.0 [16]	56.5 [26]	EPS	9.25 [235]	9.25 [235]	10.50 [267]	21.25 [540]	21.25 [540]	20.75 [527]
	C10R4	9.9	4 DAY	27.3 [13]	17.0 [8]	VIP	9.63 [245]	9.63 [245]	6.50 [165]	14.75 [375]	12.75 [324]	15.00 [381]
	C6R5	5.7	5 DAY	24 [10.8]	18.4 [8.4]	VIP	10.75 [273]	9.25 [235]	3.5 [89]	15.56 [395]	14.31 [363]	13.75 [349]
	C14R5	13.9	5 DAY	35.3 [16]	32.9 [14.9]	VIP	9 [229]	9 [229]	10.5 [267]	17.62 [448]	17.62 [448]	17.56 [446]
	C26R5	25.8	5 DAY	64.6 [29.4]	50.9 [23.1]	VIP	15.00 [381]	10.75 [273]	9.75 [248]	21.25 [540]	20.25 [514]	19.63 [498]
CRT 15-25° C	C14C3*	14.0	3 DAY	39.0 [18]	56.5 [26]	EPS	9.00 [229]	9.00 [229]	11.00 [279]	21.25 [540]	21.25 [540]	20.75 [527]
	C35C3*	35.0	3 DAY	90.0 [40]	100.2 [45]	PUR	20.25 [514]	11.25 [286]	9.38 [238]	33.00 [838]	24.00 [610]	21.00 [533]
	C6C5	5.7	5 DAY	20 [9]	18.4 [8.4]	VIP	10.75 [273]	9.25 [235]	3.5 [89]	15.56 [395]	14.31 [363]	13.75 [349]
	C14C5	13.9	5 DAY	35.3 [16]	32.9 [14.9]	VIP	9 [229]	9 [229]	10.5 [267]	17.62 [448]	17.62 [448]	17.56 [446]
	C26C5	25.8	5 DAY	63.6 [28.9]	50.9 [23.1]	VIP	15.00 [381]	10.75 [273]	9.75 [248]	21.25 [540]	20.25 [514]	19.63 [498]
	C11C4*	11.0	4 DAY	42.0 [19]	56.5 [26]	EPS	8.50 [216]	8.50 [216]	10.00 [254]	21.25 [540]	21.25 [540]	20.75 [527]
FROZEN <-20° C	C14F3	14.7	3 DAY	36.0 [16]	56.5 [26]	EPS	9.25 [235]	9.25 [235]	10.50 [267]	21.25 [540]	21.25 [540]	20.75 [527]
	C6F5	5.7	5 DAY	9.4 [4.3]	18.4 [8.4]	VIP	10.75 [273]	9.25 [235]	3.5 [89]	15.56 [395]	14.31 [363]	13.75 [349]
	C14F5	13.9	5 DAY	10 [4.5]	33.0 [15]	VIP	9.00 [229]	9.00 [229]	10.50 [267]	17.63 [448]	17.63 [448]	17.63 [448]
	C26F5	25.8	5 DAY	20 [9]	50.9 [23.1]	VIP	15.00 [381]	10.75 [273]	9.75 [248]	21.25 [540]	20.25 [514]	19.63 [498]

* Shipper only. Contact customer service as refrigerant components are sold separately.



ROBUST REUSABLE SOLUTIONS

Ideal for clinical trial shipments or other high value payloads

Via Reusable Insulated Shippers have been designed to utilize simple packaging configurations, reduce operational complexity, and optimize total cost of ownership. Ensure the efficacy of your valuable temperature sensitive products and maintain regulatory compliance throughout distribution with Via.

- ZERO BENCH-TIME® refrigerant design means no waiting, greatly simplifies and accelerates the assembly process
- Utilizes VIP insulation and PureTemp® PCMs resulting in fewer components and lower weight, decreasing total cost of ownership
- Designed to our real-world ISCSilver® ambient temperature profile
- Simple design and modular format reduces reclamation time by 50% while optimizing inventory costs per return shipment

	Model	Payload (liters)	Duration	Weight lb [kg]	Payload ID in [mm]			Shipper OD in [mm]		
					L	W	H	L	W	H
REFRIGERATED 2-8°C	V3R3	3.2	3 Day	16.2 [7.4]	7.56 [192]	7.19 [183]	3.63 [92]	12.75 [324]	10.75 [273]	11.00 [279]
	V5R4	5.2	4 Day	30.6 [13.9]	9.56 [243]	9.19 [233]	3.63 [92]	14.75 [375]	12.75 [324]	13.00 [330]
	V10R3	9.9	3 Day	29.4 [13.3]	9.63 [245]	9.63 [245]	6.50 [165]	14.75 [375]	12.75 [324]	15.00 [381]
	V12R2	11.5	2 Day	27.6 [12.5]	9.63 [245]	9.63 [245]	7.50 [191]	14.75 [375]	12.75 [324]	15.00 [381]
CRT 20-25°C	V3C4	3.2	4 Day	16.2 [7.4]	7.56 [192]	7.19 [183]	3.63 [92]	12.75 [324]	10.75 [273]	11.00 [279]

VIA® ADVANTAGE

- **ZERO BENCH-TIME®**
Technology allows our solutions to be packed out immediately, saving on assembly time and space requirements
- **MODULAR DESIGN**
Allows to use only three box sizes across 5 different solutions with payloads for 2-8°C and CRT shipments
- **GREEN COLOR CORRUGATE**
Helps identify the shipper across the supply chain and the white "Return" flap allows customers to do a "hassle-free", speedy return, reducing asset loss
- **RECLAMATION TIME REDUCED**
 - Replacement of outer corrugate during the return cycle reduces time/ costs to remove labels/stickers
 - The new design provides quick change of components as required

RECLAMATION AND REFURBISHMENT

Our Via solutions seamlessly integrate with the SHIP2Q reclamation process. All components perform to original specifications and the shipper is decontaminated using proprietary UV sanitization technology at all of our global reclamation centers.

Additionally, our 2 1 CFR Part 1 1 compliant inventory management system provides 100% visibility of your assets throughout the supply chain. To learn more, please visit thermosafe.com/reclamation.

Greenbox®

ROBUST REUSABLE SOLUTIONS

Greenbox® Reusable Insulated Shippers have been designed to utilize simple packaging configurations, reduce operational complexity, and optimize total cost of ownership. GreenBox's simple design and modular format increases reclamation and refurbishment efficiencies. Ensure the efficacy of your valuable temperature-sensitive products and maintain regulatory compliance throughout distribution with Greenbox.



- ZERO BENCH-TIME® refrigerant design means no waiting, greatly simplifies and accelerates the assembly process
- Utilizes VIP insulation and PureTemp® PCMs resulting in fewer components and lower weight, decreasing total cost of ownership

	Model	Duration	Weight (lb)	Payload ID in [mm]			Shipper OD in [mm]		
				L	W	H	L	W	H
REFRIGERATED 2 - 8 °C	89213-048	3 Day	5.8	17.3 [439]	9.3 [236]	7.1 [180]	24.0 [610]	14.0 [356]	12.0 [305]
	89213-022	1 Day	7.9	7.1 [180]	7.5 [191]	3.6 [91]	9.0 [228]	9.0 [228]	9.0 [228]
	89213-024	2 Day	10.6	7.1 [180]	7.5 [191]	1.6 [41]	9.0 [228]	9.0 [228]	9.0 [228]
	89213-034	1 Day	17.0	9.6 [244]	9.6 [244]	5.5 [140]	12.0 [305]	12.0 [305]	12.0 [305]
	89213-036	2 Day	22.5	9.2 [234]	9.5 [241]	3.6 [91]	12.0 [305]	12.0 [305]	12.0 [305]
	89213-038	3 Day	22.5	9.6 [244]	9.6 [244]	3.6 [91]	12.0 [305]	12.0 [305]	12.0 [305]
CRT 15 - 30 °C	89213-026	3 Day	7.9	7.1 [180]	7.5 [191]	3.6 [91]	9.0 [228]	9.0 [228]	9.0 [228]
	89213-028	5 Day	10.6	7.1 [180]	7.5 [191]	1.6 [41]	9.0 [228]	9.0 [228]	9.0 [228]
	89213-042	4 Day	17.0	9.6 [244]	9.6 [244]	5.5 [140]	12.0 [305]	12.0 [305]	12.0 [305]
	89213-040	4 Day	22.5	9.2 [234]	9.6 [244]	3.6 [91]	12.0 [305]	12.0 [305]	12.0 [305]
	89213-044	5 Day	22.5	9.2 [234]	9.6 [244]	3.6 [91]	12.0 [305]	12.0 [305]	12.0 [305]
	89213-050	6 Day	45.8	17.3 [439]	9.3 [236]	7.1 [180]	24.0 [610]	14.0 [356]	12.0 [305]
FROZEN < -15 °C	89213-020	2 Day	10.6	7.1 [180]	7.5 [191]	1.6 [41]	9.0 [228]	9.0 [228]	9.0 [228]
	89213-030	1 Day	22.5	9.2 [234]	9.6 [244]	3.6 [91]	12.0 [305]	12.0 [305]	12.0 [305]
	89213-032	3 Day	28.0	9.6 [244]	9.6 [244]	1.6 [41]	12.0 [305]	12.0 [305]	12.0 [305]
	89213-046	4 Day	69.0	13.5 [343]	5.3 [135]	7.1 [180]	24.0 [610]	14.0 [356]	12.0 [305]

DCS VIP Shippers

Patented shipping system provides four layers of protection against heat damage and withstands rough handling during extended shipments. Extends shipping times and/or distances and permits the use of smaller lighter packaging. Two stock models available.

Model	Capacity [cu ft]	Dimensions L x W x H in [mm]	
		Inner	Outer
499DCS	0.47	9 ¼ x 9 ¼ x 9 ½ [234 x 234 x 241]	15 ½ x 15 ¼ x 15 [394 X 387 X 381]
615DCS	1.85	19 x 13 x 13 [483 X 330 X 330]	24 x 18 x 17 ⅞ [610 X 457 X 432]



For additional VIP Shippers, see page 18.

TO ORDER, CALL US AT: 1-800-766-7000

Nomadic®

LEGACY PRE-QUALIFIED SHIPPERS FOR 48 HOUR SHIPMENTS

Nomadic® Pre-Qualified Shippers deliver precise protection for refrigerated and frozen pharmaceuticals, biological specimens, and samples in a range of configurations.



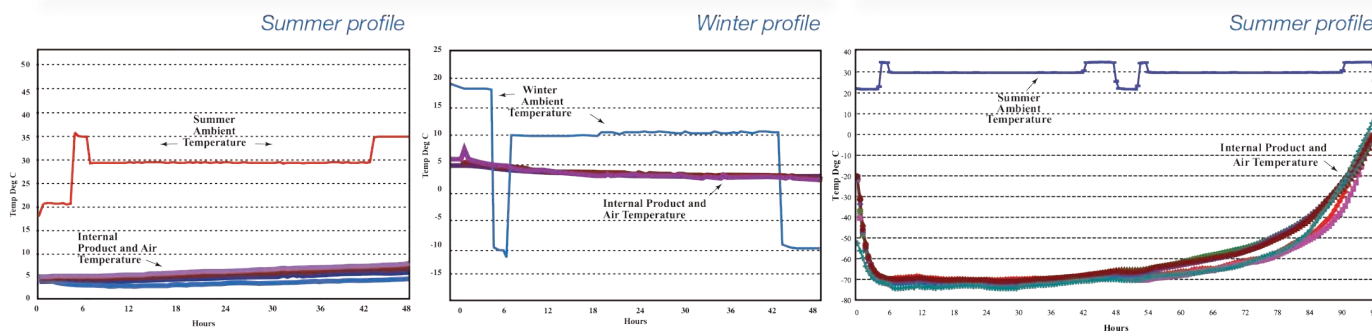
- 2°C – 8°C shipping solutions have passed comprehensive thermal and transit testing performed by ISC Labs®, the leading testing and validation laboratory in the industry
- Maintains minimum and maximum loads of refrigerated products at 2°C – 8°C for a minimum 48 hours, and below -20°C for a minimum of 72 hours with the use of dry ice pellets
- Durable one-piece closed cell polyurethane foam insulated shipper
- CFC and HCFC-free. Complies with international clean air regulations. Reusable; replaceable components available separately to reduce overall packaging costs

	PALLET		CASE		Payload (liters)	Dimensions L x W x H in.[mm]		Weight (lb)
	Model	Qty	Model	Qty		Inner	Outer	
	REFRIGERATED 2-8°C	03600123*	18	03525053*		1	2.3	
	22031871*	12	03525053*	1	10.5	10 x 8 x 8 [254 x 203 x 203]	20½ x 18½ x 23 [521 x 470 x 584]	46
FROZEN -20°C	E280CA	12	---	1	10.5	10 x 8 x 8 [254 x 203 x 203]	20½ x 18½ x 23 [521 x 470 x 584]	46

* Refrigerants included

Refrigerated (2 Day) test results

Frozen (Less than -20°) test results



PALLET SOLUTIONS

PALLET SHIPPER 03600143

The ThermoSafe® 03600143 with EasyLoc™ Design is the next generation insulated pallet shipper and features the easiest assembly in the industry. It is specifically designed for life science customers to use in the transport of high-value, temperature-sensitive pharmaceutical, biological, and vaccine products.

PALLET SHIPPER 03600142

The ThermoSafe® Pallet Shipper-PUR is a pallet sized insulated packaging system with unsurpassed durability for shipping and protecting bulk loads of refrigerated and frozen products.

- Rugged corrugated outer casing: 3" rigid polyurethane insulation
- Reusable 6-piece design assembles in minutes and folds flat when empty for storage or return.
- Optional components include triple-wall pads, spacers, flexible polyurethane foam plug (for less than full loads), and custom pallets



Model	Vol. (ft ³)	Dimensions L x W x H in [mm]		Empty Weight (lb)
		Inner	Outer	
03600141	15	32 x 24 x 34 [813 x 610 x 864]	39½ x 31¾ x 45¾ [1003 x 806 x 1162]	64
03600142	27	39 x 32¼ x 37 [991 x 819 x 940]	46⅜ x 39⅝ x 44 [1178 x 1006 x 1118]	77
03600143	41	41¼ x 33⅜ x 50⅜ [1048 x 848 x 1280]	49¼ x 40⅞ x 56⅜ [1251 x 1019 x 1432]	92
03600144	61	50 x 46 x 46 [1270 x 1168 x 1168]	57¾ x 53¾ x 53 [1467 x 1365 x 1346]	151

Each shipper should be used with a pallet (not included).

BULK TEMPERATURE CONTROL

More temperature options. Fewer packing components. Easy assembly. Designed to meet the unique transport requirements of pharmaceuticals, biologics, vaccines, and other high value life science products.

Featuring:

- Pre-qualified for refrigerated, frozen, and CRT temperatures
- Dimensions have been optimized for narrow-body aircraft, wide-body aircraft, and North American trucks

Pallet Shell	Temp.	Duration (hrs)	Packout	Payload Dimensions L x W x H in [mm]	Required Refrigerant Sleeves
SPS	< -20° C	48	Universal	33 x 24½ x 36½ [838 x 622 x 927]	(1 each) SPS-FS
SPS	< -15° C	120	Universal	33 x 24½ x 36½ [838 x 622 x 927]	(1 each) SPS-FS
SPS	2-8° C	96	Universal	33 x 24½ x 36½ [838 x 622 x 927]	(1 each) SPS-RSR, (1 each) SPS-RSF
GPS-RFS	2-8° C	96	Summer	32 x 30 x 28 [813 x 762 x 711]	Refrigerants Included
GPS-RFW	2-8° C	120	Winter	32 x 20 x 28 [813 x 762 x 711]	Refrigerants Included
GPS-RHS*	2-8° C	120	Summer	35 x 30 x 9 [889 x 762 x 229]	Refrigerants Included
GPS-RHW*	2-8° C	120	Winter	35 x 30 x 9 [889 x 762 x 229]	Refrigerants Included
SPS	1-10° C	144	Universal	33 x 24½ x 36½ [838 x 622 x 927]	(1 each) SPS-RSR, (1 each) SPS-RSF
SPS	15-25° C	72	Universal	33 x 24½ x 36½ [838 x 622 x 927]	SPS-CRTS
SPS	10-30° C	120	Universal	33 x 24½ x 36½ [838 x 622 x 927]	SPS-CRTS
GPS-RPS	2-8° C	120	Summer	48 X 40 X 35 [1219 X 1016 X 889]	Refrigerants Included
GPS-RPW	2-8° C	120	Winter	48 X 40 X 38 [1219 X 1016 X 965]	Refrigerants Included

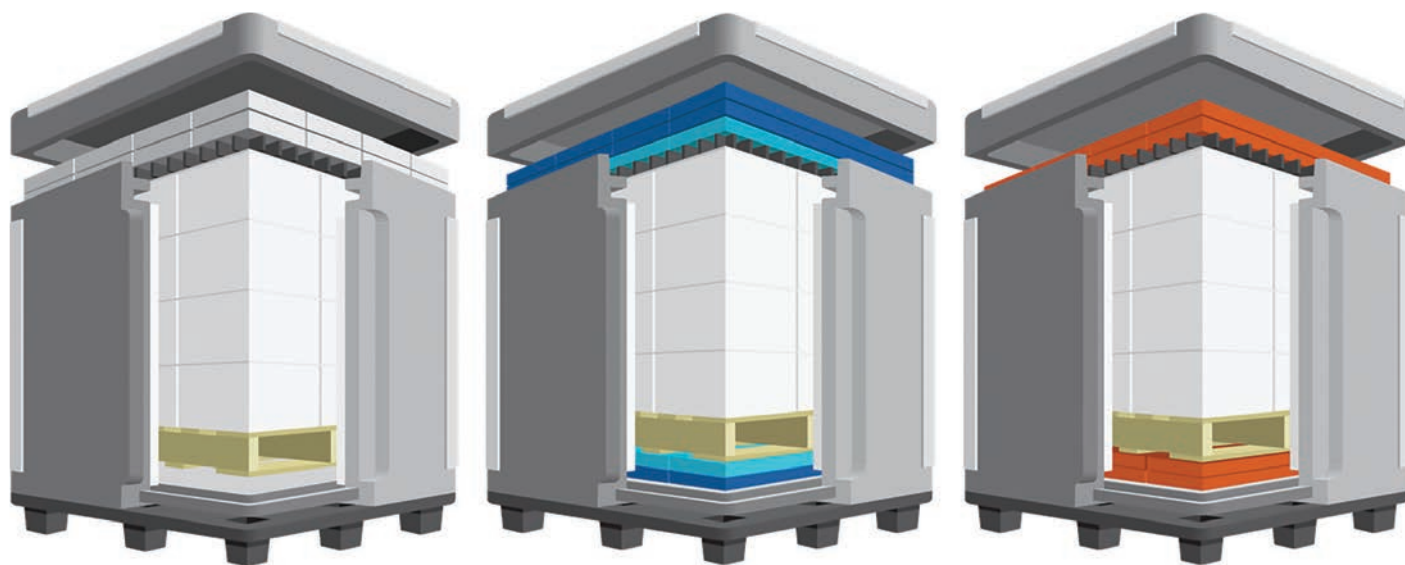
* Minimum order quantity 2

PALLET SOLUTIONS

TECHNOLOGY, PERFORMANCE, SIMPLICITY

The new Quarter PMC pallet shipper platform maximizes the space on an LD7 PMC air pallet used in wide-body aircraft. The platform includes solutions for 2-8°C, 15-25°C and frozen temperature ranges. Each solution has a universal pack-out design to be used in both hot and cold seasons while also accommodating the demands of cross-hemispheric shipments.

- Optimize air shipments of temperature-sensitive biologics and pharmaceutical products for durations exceeding five days
- Platform features patent-pending technologies such as our unique interlocking L-shaped panels; revolutionary design eliminates corner leaks and drastically reduces edge leaks
- ConvecTECH™ dispersion panels maximize natural convection to eliminate side refrigerants, increasing payload and simplifying packing procedures



Pallet Shell	Temp.	Duration (hrs)	Tare Weight lb [kg]	Payload (liters)	Payload Dimensions L x W x H in [mm]	Outer Dimensions L x W x H in [mm]	Required Components
QPMC-1	2-8° C	120	514 [233]	1,154	50 x 36 x 39.13 [1270 x 914 x 994]	61.6 x 47.1 x 62.6 [1565 x 1196 x 1590]	(10 each) SLV3R72 (15 each) SLV3F72
QPMC-CRT	15-25° C	120	444 [201]	1,154	50 x 36 x 39.13 [1270 x 914 x 994]	61.6 x 47.1 x 62.6 [1565 x 1196 x 1590]	(20 each) SLV3C72
QPMC-F	< -20° C	120	540 [245]	1,154	50 x 36 x 39.13 [1270 x 914 x 994]	61.6 x 47.1 x 62.6 [1565 x 1196 x 1590]	(1 each) QPMCTRAY

GUIDE: SELECTING THE RIGHT SHIPPER

Sonoco ThermoSafe offers an extensive line of insulated containers for the safe storage and delivery of temperature-sensitive products. Our selection includes various sizes of EPS (Expanded Polystyrene), PUR (Polyurethane), and VIP (Vacuum Insulated Panels) insulated shippers and containers, that are each sold separately (no refrigerants included), as well as various lines of ready-engineered systems— such as Via®, Certis® and Envoy®— that have been designed, tested, and qualified to perform per required criteria. Information regarding insulation properties and other specific characteristics of shippers and containers can be found on the corresponding product pages.

When selecting a container and refrigerant to best maintain your product temperature and protect against physical damage during shipment, there are a number of different factors that must be considered. For example:

- Does the product need to remain frozen, refrigerated, or at controlled room temperature?
- How long will it be in transit?
- Is the product of uniform shape or is it irregular?
- What ambient temperatures do you expect?*

The following guidelines are intended to help you select the best insulated container for shipping your product. We strongly recommend that you use them as the basis for selecting a container and/or refrigerant for testing and evaluation. Sonoco ThermoSafe offers thermal package design, testing, and qualification services through ISC Labs®. For more information, see [page 39](#) of this catalog or call Customer Service at **1-800-766-7000**.

Material	Expanded Polystyrene (EPS)	Polyurethane (PUR)	Vacuum Insulated Panels (VIP)
Wall Thickness (in)	¾" - 1 ¼" 1 ½" - 2¼" > 1 ½"	1" to 3"	½" - 1"
Benefit Summary	<ul style="list-style-type: none"> • Economical • Lightweight • Recyclable • Excellent dry ice sublimation 	<ul style="list-style-type: none"> • Construction offers great shock absorption and cushioning during shipping & handling • Withstands > 5,000 lb crush-compression 	<ul style="list-style-type: none"> • Reduces refrigerant requirements [usage] • Greater net payload utilization • Reduction in shipping weight and freight cost • Environmentally neutral, recyclable
Transit Duration	< 24 hrs. < 24 hrs. ≤ 48 hrs.	Ideal for > 48 hrs.	Extended durations
Ideal for	<ul style="list-style-type: none"> • Safe storage & delivery of refrigerated or frozen material [pharmaceuticals, laboratory specimens, serums, vaccines, human organs, culture pack, and nuclear and isotope materials] 	<ul style="list-style-type: none"> • Highly temperature-sensitive shipments from moderate to extreme ambient temperature exposure • Heavier and denser payloads 	<ul style="list-style-type: none"> • Extended shipping times and/or distances • Good for international shipments • Pharmaceuticals and vaccines
Construction	<ul style="list-style-type: none"> • Molded expanded polystyrene 	<ul style="list-style-type: none"> • Rigid polyurethane insulation thick walls • Outer corrugate and interior corrugate liner 	<ul style="list-style-type: none"> • ½" to 1" vacuum insulated panels • Outer corrugate
Components	<ul style="list-style-type: none"> • Shippers sold separately, with or without outer corrugate 	<ul style="list-style-type: none"> • Flexible, open cell polyurethane plug [cushions and insulates content] 	N/A

NOTE: *Ambient temperatures affect package performance.



ThermoSafe®

InsulatedShipper



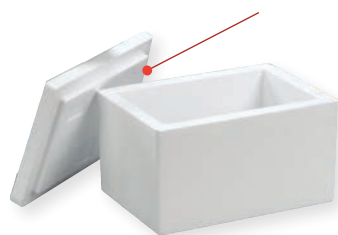
Our extensive line of EPS insulated containers offer the ideal solution for the safe storage and delivery of many refrigerated or frozen materials. This includes pharmaceuticals, laboratory specimens, serums and vaccines, human organs, culture pack, nuclear and isotope materials.

- Choose EPS only or EPS assembled in 200 lb [91 kg] test corrugated carton
- Choose insulating walls of 3/4 to 2 1/4 in. [19 to 57 mm]

LID STYLES

The images below show the difference between a plug-style & dome-style lid. The model numbers with the * next to them in the table to the right are those that are molded with a dome-style lid.

plug style lid



dome style lid



Construction		EPS/Foam Only		Wall Thickness (in)
EPS	EPS In Corrugated Carton	Inner L x W x H (in)	Outer L x W x H (in)	
03001200	03001201	24 x 18 x 21	26 x 20 x 23	1
03001202	0352812	24 x 13 7/8 x 12 1/2	28 1/4 x 17 1/4 x 15 5/8	1 1/8
03001205	03001206	23 3/8 x 14 1/8 x 23	27 7/8 x 19 x 28	2 1/4
03001207	03001208	21 9/16 x 13 7/16 x 10 5/8	24 x 15 7/8 x 12 3/8	1 1/8
03001209	0353046	21 x 15 1/8 x 15 1/4	24 x 18 x 17 7/8	1 1/8
03001210*	03001211*	19 3/8 x 11 1/4 x 3 7/8	22 5/8 x 14 7/8 x 7 1/4	1 1/2
03001214*	03001215*	19 1/4 x 12 3/8 x 12 1/4	23 5/8 x 16 3/4 x 16 1/2	2
03001216	0352828	19 x 14 5/8 x 10 3/8	22 3/8 x 18 1/8 x 13 3/8	1 1/2
0352532*	0353032*	19 3/8 x 12 3/8 x 12 1/4	22 3/8 x 15 5/8 x 15 5/8	1 1/2
03001217			2" RING	1 1/2
03001218	0352543	17 1/4 x 10 1/4 x 8	20 1/4 x 13 3/8 x 11	1 1/2
0352553*	---	17 1/4 x 10 1/4 x 5	20 1/4 x 13 1/4 x 8	1 1/2
0352554			3" RING	1 1/2
03001221*	03001222*	17 1/4 x 10 x 12 3/4	21 1/16 x 14 7/16 x 16 3/4	2
03001223	0353044	17 1/8 x 10 1/8 x 10 5/8	20 1/4 x 13 1/4 x 13 3/4	1 1/2
03001224*	03001225*	17 x 17 x 12 5/8	21 x 21 x 16 3/8	2
03001226			3" RING	3
03001227	03001228	17 x 11 3/4 x 8	18 5/8 x 13 3/8 x 9 5/8	3/4
03001229	03001230	17 x 9 7/8 x 16 1/2	20 3/8 x 13 1/4 x 19 1/2	1 1/2
03001231	03001232	16 3/4 x 13 3/4 x 12 5/8	19 1/2 x 16 1/2 x 15 1/8	1 1/2
03001233	0353045	16 3/4 x 9 3/4 x 12 5/8	20 1/4 x 13 1/4 x 15 3/4	1 1/2
03001234	03001235	16 1/8 x 11 1/2 x 6"	19 1/4 x 14 1/2 x 9	1 1/2
03001236	03001237	15 13/16 x 12 13/16 x 8 1/2	18 1/8 x 15 1/8 x 10 7/8	1
03001238	03001239	15 3/8 x 9 5/8 x 7 7/16	17 x 11 1/4 x 9	3/4
03001240	03001241	14 x 10 5/8 x 6	18 x 13 3/8 x 9	1 1/2
03001242	03001243	13 3/4 x 11 x 6 3/4	16 1/2 x 13 3/4 x 8 1/4	1 1/8
03001246	03001247	13 1/2 x 13 x 10 1/2	17 1/2 x 16 1/2 x 13 1/2	1 3/4
03001250			3" RING	3
03001100	0352827	13 1/4 x 9 1/4 x 6	15 1/2 x 11 1/2 x 8	1
03001101*	03532101*	12 1/2 x 12 1/2 x 12	15 1/2 x 15 1/2 x 15	1 1/2

+ Top and bottom are approximately equal halves, not body and lid construction.

* Dome style lid.

PATENTED MODULAR SYSTEM

Creates a perfect match between payload and container capacity!



- Patented components (basic body, dome lid, and stackable rings) enable you to just add rings for added height
- Increase packing flexibility in warehouse - only one box footprint plus rings to vary capacity as needed
- Design features include dome lids, molded-in handles, rounded corners and edges, and recessed strapping grooves
- Designed to maximize temperature control and withstand the hazards of transport



Construction		EPS/Foam only		Wall Thickness (in)
EPS	EPS in Corrugated Carton	Inner L x W x H (in)	Outer L x W x H (in)	
03001102*	035210*	12½ x 12½ x 9	15½ x 15½ x 12	1½
03001105*	03001106*	12½ x 12½ x 6	15½ x 15½ x 9	1½
03001107		3" RING		1½
	0353077+	12¼ x 8½ x 5¼	15½ x 11¾ x 8¼	1½
0352818	0353043	12 x 12 x 11½	16 x 16 x 15½	2
03001108*	03001109*	12 x 12 x 9¾	15¼ x 14 x 11½	1½
0353065*	035291*	11⅝ x 9⅞ x 9	15 x 13¼ x 12	1½
0352518A*	0353055*	11⅝ x 9⅞ x 7	14 ⅞ x 13¼ x 10 ⅞	1½
0353074*	03001111*	11¾ x 10 x 5	15 x 13¼ x 9 1/16	1½
03001112		2" RING		1½
03001113	0353063	11⅝ x 8⅝ x 11	13¾ x 10½ x 13	1
22293414	0353017	11 x 11 x 11 ⅝	14 x 14 x 14 ⅝	1½
03001114	---	10¾ x 6¾ x 5½	12 13/16 x 9⅞ x 8	1
03001116	0301117	10½ x 8 x 8½	14 x 11½ x 12	1¾
0353050	0353051	10½ x 7¼ x 10	13¾ x 10½ x 13½	1½
0353071	0353073	10 x 10 x 7	14 x 14 x 10	1¾
03001118	03001119	9½ x 7½ x 10⅜	11 x 9 x 12	¾
03001120	03001121	9½ x 7½ x 8⅜	11 x 9 x 10	¾
03001122	03001123	9½ x 7½ x 5⅝	11 x 9 x 7	¾
0353084+	03001124+	9⅝ x 8⅝ x 8⅝	12½ x 11¼ x 11⅝	1½
0353082+	0353083+	9⅝ x 8⅝ x 6⅝	12½ x 11¼ x 9½	1½
0353080+	0353081+	9½ x 8¼ x 4⅝	12 x 11¼ x 7⅞	1½
0353053*	0353054*	8 x 5 ⅞ x 11½	11 x 9 x 14½	1½
0352513*	0353052*	8 x 5 ⅞ x 8⅞	11 x 9 x 11⅞	1½
035254*	0352536*	8 x 5 ⅞ x 7	11 x 9 x 10	1½
035302*	1167614*	8 x 5 ⅞ x 4¼	11 x 9 x 7¼	1½
03001129	03001130	7 x 7¼ x 7½	11¾ x 11¾ x 11¼	2
03532102	0352544	6¼ x 5¾ x 7¾	11¼ x 10½ x 12⅝	2¼
03001131	03531	6½ dia. x 4 high	9½ x 9½ x 6 ⅞	1½
0353078	0353079	6¼ x 4¼ x 5½	9 x 7½ x 8	1½
035255	0353072	6¼ x 4¼ x 5½	11 x 9 x 10¼	2¼
03001133	03001134	6 x 4½ x 2½	8 x 6½ x 4½	1
0352810+	---	5⅞ x 4⅜ x 3	8 x 6 x 5¼	1

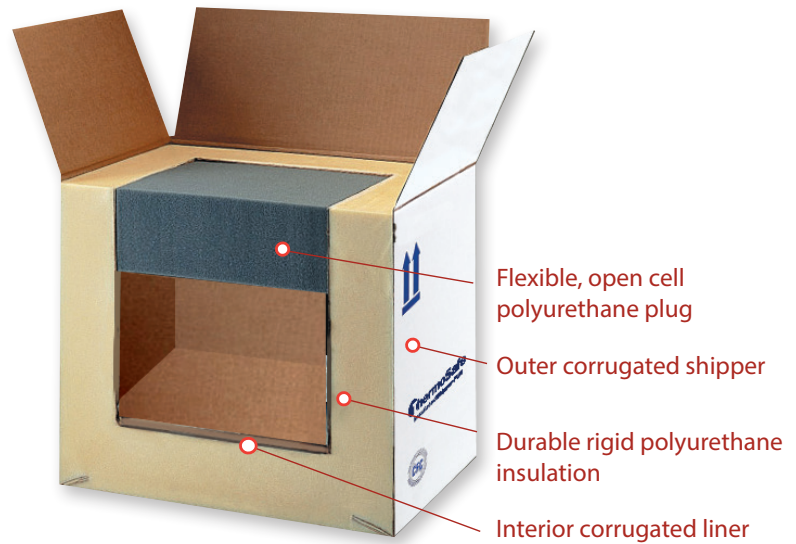
ThermoSafe®

InsulatedShipper-PUR

These high performance polyurethane containers meet the needs of the most demanding temperature-sensitive payloads. Polyurethane insulation offers greater insulating capability when compared to same size EPS containers.

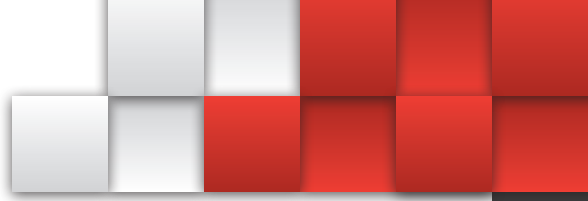
Thick walls and 200 lb [91 kg] outer corrugate offer protective shock absorption and cushioning during shipping and handling.

- Protects highly temperature-sensitive shipments from mild to extreme ambient temperature exposure
- Provides extensive protection for long range journeys
- Complies with international clean air regulations and is CFC and HCFC-free
- Withstands crush compression in excess of 5,000 lb [2 tons]
- Flexible polyurethane foam plug seals the top, cushions and insulates contents, and vents dry ice



Rigid, one-piece, three-layer laminate construction provides excellent temperature protection, exceptional strength, and durability.





Pallet		Case		Wall Thickness	Dimensions L x W x H (in)		Empty Weight (lb)
Model	Qty	Model	Qty		Inner	Outer	
03532110	2	03532111	1	3"	30½ x 21¼ x 19¾	37¾ x 28 x 24¼	26
03530006	12	03530002	1	2"	33¼ x 9¼ x 13½	28 x 14 x 20¾	9½
03532112	4	03532113	1	3"	22¼ x 17½ x 19¾	29 x 24¼ x 24¼	17½
03532114	12	03532115	1	1½"	19 x 15¾ x 13¾	22¾ x 19½ x 19½	9
03532116	12	03532117	1	3"	18½ x 18¼ x 16¾	25¼ x 25 x 24¾	17½
03530205	8	03530003	1	2"	18½ x 18¼ x 16¾	23¼ x 23 x 24	14
03530020	12	03530021	1	2"	18½ x 14½ x 12	23¼ x 19¼ x 19¼	10
03532119	12	03532120	2	3"	17½ x 9½ x 14½	24¼ x 16¼ x 21¾	12
03532121	18	03532122	2	2"	17¼ x 9½ x 15¼	22 x 14¼ x 22½	9
03532123	12	03532124	2	1½"	16 x 16 x 13½	19¾ x 19¾ x 19¼	8
03530052	18	03530001	2	2"	16¼ x 9¼ x 10¼	21 x 14 x 17½	7½
03532125	36	03532126	2	1"	15¼ x 10¾ x 11	18 x 13½ x 15¼	4½
03532127	24	03532128	2	1½"	15 x 13 x 11	18¾ x 16¾ x 16¾	6½
03532129	18	03532130	2	2"	14¼ x 10 x 15¼	19 x 14¾ x 22½	8
03532131	32	03532132	2	2"	14 x 8 x 10	18¾ x 12¾ x 17¼	6
03532133	8	03532134	1	3"	13½ x 13½ x 16½	20¼ x 20¼ x 24½	14½
03532135	45	03532136	4	1"	12¼ x 12¼ x 8	15 x 15 x 12¼	4
03532137	18	03530005	2	3"	12 x 10 x 13	18¾ x 16¾ x 21¼	10½
03532138	8	--	1	3"	11½ x 11½ x 32⅞	18¾ x 18¼ x 36⅞	16
03532140	24	03532141	4	3"	11 x 8½ x 7	17¾ x 15¼ x 15¼	7
03532142	36	03530000	3	2"	11 x 8 x 7	15¾ x 12¾ x 14¼	4
03532143	60	03532144	8	1"	10¾ x 7 x 5	13⅝ x 9⅞ x 9¼	2
03532145	45	03532146	4	1"	10 x 10 x 8	12¾ x 12¾ x 12¼	3
03532147	36	03532148	8	1½"	9¼ x 7 x 7¼	13 x 10¾ x 13	3
03530051	18	03532150	2	3"	8 x 7⅞ x 15	14¾ x 13⅞ x 23¼	9
03532151	48	03530004	4	3"	8 x 6 x 8	14¾ x 12¾ x 16¼	5½
03532152	50	03532153	8	2"	5¼ x 5¼ x 10⅞	10 x 10 x 17⅞	3
03532154	50	03532155	8	2"	4½ x 4½ x 8	9½ x 9⅞ x 14⅞	2½



ThermoSafe® InsulatedShipper-VIP

Our Vacuum Insulated Panel (VIP) Shippers are the best choice for longer duration shipments of high value, temperature sensitive products allowing smaller container sizes and reducing shipping weight of your package. These high performance insulated shippers have a tough, non-metalized barrier and outer structural film—yielding a robust shipping container with thermal performance that far surpasses conventional foam boxes.

- Reduces gel refrigerant/dry ice requirements
- Extends shipping duration
- Environmentally neutral and recyclable—no CFCs or HCFCs

Vacuum Insulated Panel



Outer corrugated shipper

PALLET		CASE		Capacity (cu ft)	Dimensions L x W x H (in)		Wall Thickness (in)
Model	Qty	Model	Qty		Inner	Outer	
03600136	140	03525046	12	0.25	9 x 8 x 6	10 x 9 x 7	1/2
03600135	432	03525045	36	0.07	6 x 5 x 4	7 x 6 x 5	1/2

For information on DCS Shipping Systems, see page 9.

Certis® VIP FROZEN SOLUTIONS

Engineered to provide the lowest total cost of ownership. Certis frozen solutions incorporate leading edge technology to achieve optimal performance while minimizing overall weight, size, and complexity.

- -20°C protection for 5 days
- Designed to our real world ISCSilver® ambient temperature profile
- An inner corrugate liner and corepack provides added protection for the VIP panels and enhances the structural integrity of the system

Model	Duration	Temp. Control	Payload (liters)	Payload ID in [mm]	Dimensions L x W x H in [mm]		Dim. Weight lb [kg]	Physical Weight lb [kg]
					Inner	Outer		
C6F5	5-Day	≤20°C	5.7	10.75 x 9.25 x 3.5 [273 x 235 x 89]	10.75 x 9.25 x 3.5 [273 x 235 x 89]	15.56 x 14.31 x 13.75 [395 x 363 x 349]	18.4 [8.4]	9.4 [4.3]
C14F5	5-Day	≤20°C	13.9	9.00 x 9.00 x 10.50 [229 x 229 x 267]	14.37 x 14.37 x 13.62 [365 x 365 x 346]	17.63 x 17.63 x 17.63 [448 x 448 x 448]	33 [15]	35.3 [16]
C26F5	5-Day	≤20°C	25.8	15.0 x 10.75 x 9.75 [381 x 273 x 248]	15 x 10.75 x 9.75 [381 x 273 x 248]	21.25 x 20.25 x 19.63 [540 x 514 x 498]	50.9 [23.1]	20 [9]

GUIDE: SELECTING THE RIGHT REFRIGERANT

Sonoco ThermoSafe offers a wide selection of refrigerants for use with its insulated containers.

This table is intended to assist you with selecting the best refrigerant for your shipments.



Refrigerant	Temperature	Recommended Use For	Other Considerations
Dry Ice	-78 °C (-109 °F)	Products which must be kept frozen for extended periods of time	Dry ice is regulated as a hazardous material in air transport and should not be used with products which may be damaged by extreme cold
Eutectic Gel	-23 °C (-10 °F)	Products which must be kept frozen	To freeze, freezer must go below -23 °C Provides longer lasting protection than standard gel packs
Eutectic Gel	-1 °C (+30 °F)	Products which must be kept cold for long periods of time	Maintains temperature longer than standard gel packs
Standard Gel	0 °C (+32 °F)	Products which require refrigerated or frozen protection	Most cost-effective alternative to wet ice
MoistureGuard®	0 °C (+32 °F)	Products which must be protected from condensation damage	Multi-layer exterior minimizes surface condensation
Foam Brick	0 °C (+32 °F)	Products which require refrigerated or frozen protection	Foam bricks maintain shape when frozen or thawed
Rigid Bottle	0 °C (+32 °F)	Products which require refrigerated or frozen protection	Rigid bottles offer maximum durability while maintaining package configuration
Advanced Phase Change Materials	-40 °C to +37 °C	High value shipments or when challenging ambient conditions are expected	Maintains narrow temperature ranges for extended durations
Flex Packs	Hot or Cold	Therapeutic treatment	Can be used for either cold or warm compress

* Call for pricing and availability information regarding preconditioning services, custom printing and returnable tote programs.



PolarPack®

PolarPack refrigerants provide thermal solutions for temperature critical packages during transit. Available in a broad selection of styles and a multitude of sizes, they are designed to provide reliable temperature protection for a vast array of products and packages.



STANDARD 0°C (+32°F)

An economical alternative to wet ice, enclosed in durable 100µ [4.1 mil] polyethylene film. PolarPack gel packs provide reliable refrigeration for the safe transport of temperature-sensitive products.



RIGID BOTTLE 0°C (+32°F)

Multi-purposed and designed to withstand rugged warehouse packing environments. These blow-molded rigid plastic bottles are our most durable refrigerants.



FOAM BRICK 0°C (+32°F)

Vacuum-sealed for consistent weight and shape. These semi-rigid foam bricks never change shape during freezing, thawing or transit, enabling superior surface contact for more consistent temperature control.



MOISTUREGUARD® 0°C (+32°F)

Minimizes surface condensation, these packs have a multi-layered exterior, protecting product from moisture damage.



FLEX PACKS 0°C (+32°F)

Cold and warm pack therapy used by physical therapists, hospitals, and physicians to treat areas of pain and inflammation.

Model	Weight (oz)	Dimensions L x W x H (in)
STANDARD		
03532100	3	3 ¼ x 4 x 5/8
03600100	6	5 ½ x 3 ½ x ¾
03600101	8	6 ½ x 3 ½ x ¾
03530110	12	6 x 5 ½ x 1
03600102	16	6 ½ x 5 ½ x 1
0353109	24	8 x 5 ½ x 1 ¼
03600103	32	10 ½ x 5 ½ x 1 ¼
PP42	42	9 x 7 ½ x 1 ¼
03600104	48	10 ½ x 7 ½ x 1 ¼
RIGID BOTTLE		
HPP8	8	5 ½ x 2 ¾ x 1
0353156	16	7 x 3 ½ x 1 ½
03531270	32	8 x 5 x 1 ¾
FOAM BRICK		
03530010	7.5	4 ½ x 4 x ¾
03530011	15	4 ½ x 4 x 1 ½
0353153	18	8 ¼ x 5 ½ x ¾
0353154	23	5 x 5 x 1 ¾
0353155	24	6 ½ x 4 ½ x 1 ½
03530012	31	9 x 4 x 1 ½
FPP39	39	9 x 9 x ¾
22031893	56	11 ¼ x 9 ¼ x 1
03530013	64	10 ½ x 6 ½ x 1 ¾
MOISTURE GUARD		
03530202	8	6 x 4 ¾ x ¾
03530200	12	6 x 5 ½ x ¾
0353150	16	6 ½ x 5 ½ x ¾
03530201	24	8 x 5 ½ x 1 ¼
0353151	32	10 ½ x 5 ½ x 1 ¼
0353152	48	10 ½ x 7 ½ x 1 ¼
FLEX PACK		
FLEX500	60	3 ¼ x 4
FLEX1000	48	6 x 5 ½
FLEX1100	24	6 x 11 ½
03001211	12	12 x 12 ½

U-tek®



Superior protection for shipping temperature-sensitive materials. Maintains critical temperatures of serums, test samples, live or frozen tissues, organs, and pharmaceuticals for extended periods. Laminated, metallized film exterior provides radiant heat barrier and resists punctures.

Model	Formula	Weight (oz)	Dimensions L x W x H (in)
035286	-1°C (+30°F)	8	6 x 4 x ¾
03528B	-1°C (+30°F)	12	6¾ x 4 x 1
035257B	-1°C (+30°F)	16	6½ x 6½ x 7/8
03528C	-1°C (+30°F)	24	7½ x 6½ x 1
035257D	-1°C (+30°F)	32	9¾ x 7¾ x 1
035257F	-1°C (+30°F)	48	10½ x 7¾ x 13/16
0353047	-23°C (-10°F)	8	6 x 4 x ¾
035281	-23°C (-10°F)	12	6¾ x 4 x 1
035257C	-23°C (-10°F)	16	6½ x 6½ x 7/8
035285	-23°C (-10°F)	24	7½ x 6½ x 1
03600106	-23°C (-10°F)	32	9¾ x 7¾ x 1
035257G	-23°C (-10°F)	48	10½ x 7¾ x 13/16

REFRIGERANTS: U-TEK®

U-tek®

-1°C/+30°F-Mat

-1°C/+30°F-Single

Cushions fragile shipments, and won't dilute ice baths or damage samples. Remains frozen longer than regular ice, without the melting mess.

- May be refrozen and reused, withstands pressures in excess of 60 lb per square inch for five minutes or longer
- Refrigerant contains neutral pH distilled and deionized water, and proprietary materials certified by the U.S. Food and Drug Administration as food grade chemicals



03600107



035283



Model	Style	Description	Dimensions	Case Weight (lb)
03528D	Mat	1 roll	16" W x 34 ft L	50
03600107	Square Mat	28 sheets	16" W x 14¾" L	50
035283	Singles	Approximately 1500 packets	1 ½" W x 3" L	50





INNOVATIVE PHASE CHANGE MATERIAL

PureTemp® Phase Change Materials liquefy or solidify at precise temperatures. When the surrounding temperature falls below the phase temperature, they solidify and release their stored energy. If the temperature rises above the phase temperature, they liquefy and absorb excess energy.

These two phenomena protect the product from excessive heat and cold to help maintain product temperature for extended periods of time. PureTemp is engineered to react to a precise temperature, from -40° to +37°C, and to operate in a very narrow temperature range. It is also renewable and biodegradable.

PureTemp comes in foam bricks and hard bottles.

SUSTAINABILITY

- Biodegradable
- USDA BioPreferred® designation
- Reduces shipping weight, freight, warehouse space, and packout space

TIGHTER TEMPERATURE CONTROL

- Extensive range of temperature options
- Constant temperature during freezing or melting provides constant temperature control
- Eliminates thermal shock with fewer excursions

TOTAL COST CONTROL

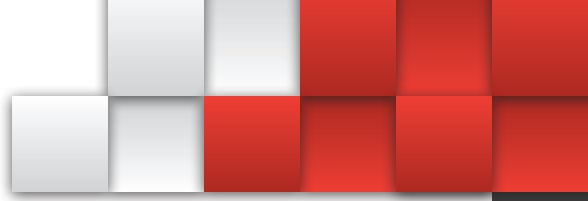
- Increases payload efficiency
- Reduces shipping weight and freight costs
Less PureTemp material is required for temperature control when compared to water-based refrigerants
- Simplifies packout inventory and process
- Decreases box size for less warehouse and packout space
- Eliminates bench-time
- Increases shipping duration

PureTemp® is a trademark of Entropy Solutions, Inc. Used with permission.

PureTemp® vs. Petroleum/Paraffin-Based PCMs

	PureTemp	Petroleum/ Paraffin
Latent Heat	210 joules/gram	170 joules/gram
Renewable	Yes	No
Biofriendly	Yes	No
Farmer-Friendly	Yes	No
Cost per Unit	Low	Medium-High
Flammability	Low	High
Degradability	6 months	Non-biodegradable
Rancidity	None	None
Thermal Life Cycle	Limitless	Limitless
Microencapsulation	Yes	Yes

	Model	Phase Temp	Weight (oz)	Dimensions L x W x H (in)	Case Qty	
PCM Rigid Bottles	B27V	-21° C	29.3	8 x 8 x 1	15	
	B38V	-21° C	45.2	10 x 10 x 1	12	
	03600112	1° C	29.2	8 x 8 x 1	15	
	03600115	1° C	45.2	10 x 10 x 1	12	
	03600111	4° C	26.2	8 x 8 x 1	15	
	03600114	4° C	42.8	10 x 10 x 1	12	
	03600113	23° C	26.2	8 x 8 x 1	15	
	03600116	23° C	42.8	10 x 10 x 1	12	
	Foam Bricks	03600108	4° C	11.0	9 x 4¾ x ½	48
		03600109	4° C	25.5	10¾ x 9¼ x ½	24
03600110		20° C	25.5	10¾ x 9¼ x ½	24	



BLOOD BANKING SOLUTIONS

Insulated expanded polypropylene medical transporters are ideal for on-site collection, storage and transport of temperature-sensitive specimens, medications, medical devices, and organs.

VIA® BLOOD TRANSPORTER 03600120

Simple, reusable ergonomic design utilizes leading edge technology to provide ultimate temperature protection.

- Ideal for the temporary storage of blood and blood products in the operating room and the transport of medications, medical devices, specimens and organs
- ZERO BENCH-TIME® refrigerant technology reduces assembly process for time and temperature critical materials
- Pre-qualified to maintain packed red blood cells at 1-6°C and 1-10°C
- See table on page 24 for details



Dolly sold separately (03531101)

MEDICAL TRANSPORTER 03531100

- Qualified by ISC Labs® for temporary storage and transport of both platelet (20°C-24°C for up to 8 hours) and non-platelet production whole blood (1°C-10°C for up to 24 hours) with crushed wet ice
- Includes operating instructions and test data for cooling platelet and non-platelet production blood
- Side loading clear plastic document holder
- Durable nylon clad transporter with expanded polypropylene container that is stain and impact resistant
- Qualification report included
- See table on page 24 for details



Dolly sold separately (03531101)



PLATELET SHIPPER E38PLATE

Shown (right) packed with platelets. This shipper has been pre-qualified for room temperature shipments of blood platelets (20°C-24°C for up to 24 hours) Qualification report is included with product.



ThermoSafe® Medical Transporter

ThermoSafe Medical Transporters are ideal for short-term storage, carrying and delivering of temperature-sensitive tissues, serums, vaccines, cultures, specimens, and other temperature-sensitive materials.

- Washable, weather-resistant blue nylon shell printed with standard biohazard symbol, with polyethylene foam insulation
- Durable, reusable, and ideal for field samples
- Zipper lock closure



Models 03531104 & 03531105

Includes removable, rigid thermoformed tray— ideal for washing and reusing; prevents leaking inside and out of transport unit; reinforces durability.

Model 03600162:

Inner partition divides unit and separates specimens. Features built-in lid compartments for U-tek® refrigerant packs.

Lightweight, easy to carry and transport. Model 03600162 includes a vial foam insert that holds (24) 5 to 15 ml vials and one Model 035281 U-tek 12 oz [340 g].

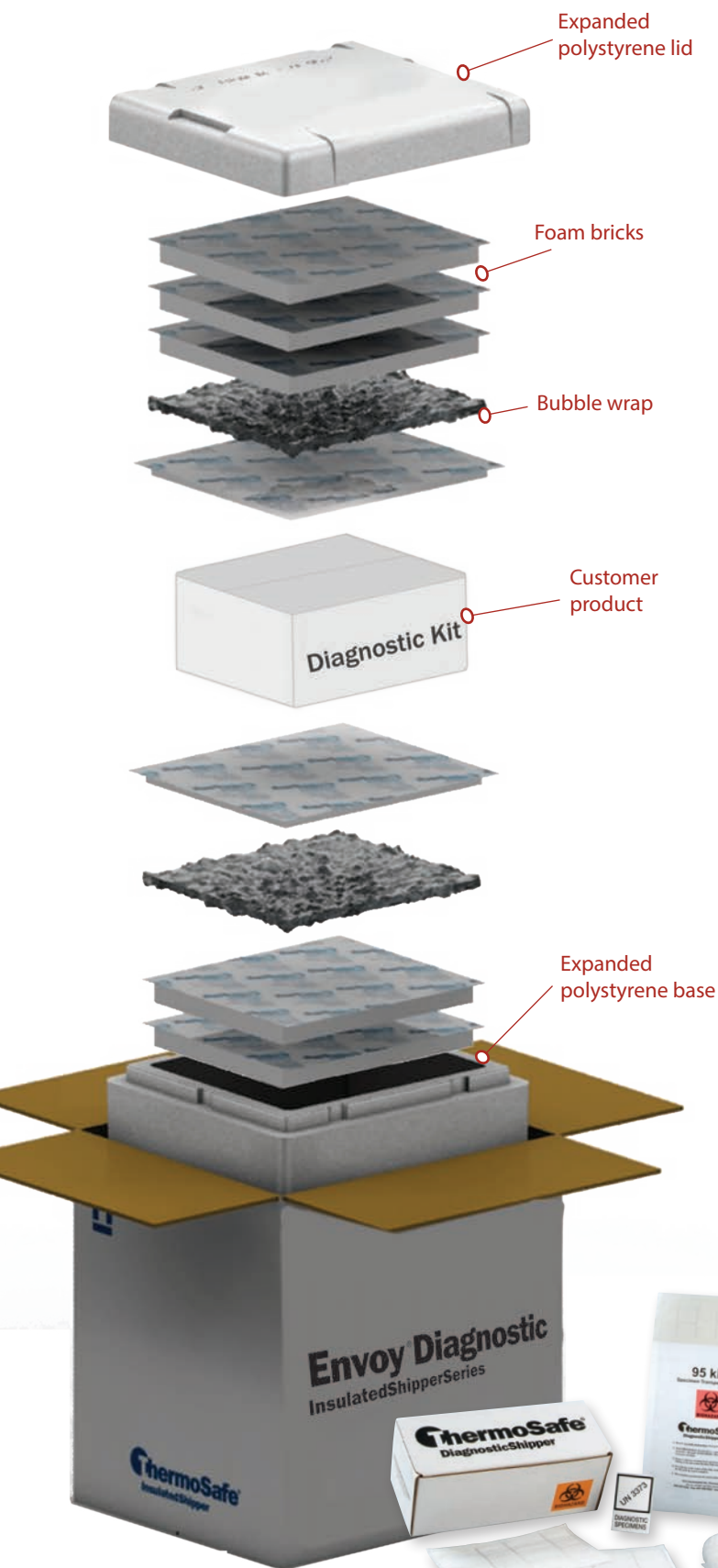
Model	Volume (ft ³)	Blood Unit Capacity (with refrigerant)	Wall Thickness (in)	Dimensions L x W x H (in)		Empty Weight (lb)
				Inside	Outside	
03531104	0.30	N/A	¼	5 x 7¾ x 9¾	11⅞ x 8¾ x 11	2
03600162	0.30	N/A	⅜	9¾ x 7½ x 7½	10½ x 8 x 8	1
03531105	0.47	N/A	⅜	7⅞ x 10¾ x 9¾	14¾ x 11¾ x 11	2
03600120	2.15	3-7	2	13¾ x 14½ x 10	17¾ x 14½ x 14¾	16.3 w/ basket and refrigerants
03531100	2.22	16	1	15¾ x 10¾ x 22¾	17¾ x 12¾ x 24¾	12.2 w/baskets

THERMOSAFE NYLON CARRIERS

Rugged, lightweight totes ideal for transport of diagnostic and clinical specimens. Washable, weather-resistant nylon shell with thick-walled polystyrene foam insulation. Adjustable nylon carrying straps, for hand or shoulder carrying. Four models with capacities from 5 to 45 liters [0.82 to 1.6 cubic feet].



Model	Volume (ft ³)	Wall Thickness (in)	Dimensions LxWxH (in)		Closure	Empty Weight (lb)	Interior	Exterior Color
			Inside	Outside				
03535105	0.96	2	12 x 12 x 11½	16 x 16 x 15½	Bayonet-style clip	3.5	Nylon	Red
03535106	1.0	1½	17½ x 10¼ x 10⅝	20¼ x 13¼ x 13¾	Velcro®	3.0	Nylon	Black
03535107	1.0	1½	17½ x 10¼ x 10⅝	20¼ x 13¼ x 13¾	Velcro®	3.0	Nylon	Blue
03535111	1.6	1½	17 x 9⅞ x 16½	20⅝ x 13¼ x 19½	Bayonet-style clip	4.5	Nylon	Red
03535109	1.6	1½	17 x 9⅞ x 16½	20⅝ x 13¼ x 19½	Bayonet-style clip	4.5	Nylon	Black
03535110	1.6	1½	17 x 9⅞ x 16½	20⅝ x 13¼ x 19½	Bayonet-style clip	4.5	Nylon	Blue



Envoy® Diagnostic

Envoy is a simple and economical 2-8°C insulated shipping system that has been design-tested to ISCSilver® ambient temperature profile to address the need for temperature assurance in moderate shipping conditions.

Envoy Diagnostic combines the simplicity of Envoy with Sonoco ThermoSafe's line of diagnostic kits to create user-friendly and economic solutions for refrigerated temperature control of diagnostic kits, blood samples and other diagnostic specimens.

- A convenient all-in-one solution with proven thermal performance
- Ideal for 1 to 2 day shipments and small payloads
- Packouts are simple to follow and incorporate foam bricks for uniform temperature coverage

The table below offers a list of Diagnostic and Infectious Shippers that are offered in both configurations (kits and Envoy shippers).

Envoy Model #	Included Diagnostic Kit	Shipping Duration (Hrs)
Outer Dimensions: 15" x 13½" x 16" [381 x 337 x 406] mm		
Weight: 22 lb [10 kg]		
03600117	03527C*	54
03600118	03527D*	54
03600120	0352556	54
03600121	03600148	54

* Vials not included with the 03600117 and 03600118 models.

ThermoSafe®

DiagnosticShipper

DIAGNOSTIC SPECIMEN MAILING SYSTEMS

These ready-to-use combination packaging kits have been tested and certified for the transport of diagnostic specimens as defined by the applicable regulations, in conformance with IATA Packing Instruction 650, U.S. Postal Service and DOT regulations [UN3373].

- Foam shippers and packaging accessories also are available separately for use with customer-furnished primary receptacles

Model	Holds	Includes	Outer Dimensions L x W x H (in)	Replacement Parts Foam Mailers Only	Accessory Pack
03527D	3 x 10 ml tubes*	10 ml tubes, EPS mailer and lid, absorbent material, waterproof tape, corrugated shipping carton, press lock poly bag, UN3373 label and instruction sheet	5 5/8 x 4 x 2	Model 73320-137 EPS mailer— 3 tube specimen mailer, foam only	Model 73320-139 Accessory Pack*
03527C	8 x 10 ml tubes*		10 1/2 x 5 5/8 x 3	Model 16465-160 EPS mailer— 8 tube specimen mailer, foam only	Model 16465-162 Accessory Pack*

* Vials not included with the 03600117 and 03600118 models or the Accessory packs.



FLEXIBLE MAILERS (W/OUT TUBES)

Complies fully with U.S. Postal Service, DOT and IATA regulations for transport of clinical and diagnostic specimens (UN 3373). Includes all required secondary and outer packaging components.

- Accommodates up to 16- 10 ml plastic specimen tubes
- Max capacity is 300 ml



Model	Corrugated Carton I.D. (in)	Includes	Absorbent Sheets (in)	Bubble Wrap 6" X 24"	UN3373 Label
0352556	9 ½ x 4 x 4	1 Plastic envelope – printed with international biohazard symbol 6" x 9 ¾" /95 kPa (14 psi)	2 – 7 ½ x 4 ⅝ 240 ml capacity	1	1
0352557	11 x 8 x 4 ¼	2 Plastic envelopes– printed with international biohazard symbol 7" x 12" /95 kPa (14 psi)	4 – 7 ½ x 4 ⅝ 600 ml capacity	2	1
0353160*	N/A	95 kPa Plastic Bag	4 Bay 6¾ x 4⅞ 50/Case	25/Case	N/A

* Accessory Kit for models 0352556 and 0352557. All models include 1 instruction sheet.



ThermoSafe® DiagnosticShipper

5-BAY SPECIMEN TRANSPORT BAG

5-bay 95 kPa specimen transport bag includes absorbent material in each pocket, enough to absorb 15ml of urine or 10 ml of blood

This multi-layer polyethylene 95 kPa bag is IATA certified, marked with biohazard symbol and detailed closing procedures



Model	Dimensions (in)		Case Pack
	Inner	Outer	
03531108	8 ³ / ₈ x 1 ¹ / ₂ (each pocket)	9 x 9 ³ / ₈	500

95 kPa BAGS

Specimen transport bags are liquid tight and tamper evident

The patented adhesive closure and continuous seal meet or exceed standards of all major air carriers and DOT

Polyethylene construction and adhesive closure provides added security during handling by personnel



Model	Inside Dimensions (in)
0353158	6 x 9 ³ / ₈
0353159	9 x 12
03600170	11 ³ / ₈ x 16 ⁵ / ₈
03531107	13 ¹ / ₄ x 17 ⁷ / ₈
03600146	10 ¹ / ₄ x 14

ThermoSafe®

InfectiousShipper

Meets U.S. Department of Transportation (DOT) and IATA requirements for transporting infectious substances (UN 2814 and UN 2900)

3 models – accommodate shipments including 4 to 6 tubes/vials

Pre-assembled packaging includes everything needed for shipping infectious agents in accordance with DOT Regulation 49 CFR Parts 171 to 178 and IATA Packing Instructions 602

Model	Vessel/ Dimensions (in)	Internal Cushioning	Capacity	Outer Dimensions L x W x H (In)	Supplied Labeling	Additional Features
0352832	Aluminum can 3 x 6	Absorbent material, flexible pressure vessel & bubble wrap material	Four 16 x 100 mm tubes	5½ x 5½ x 11¼	Infectious substance	Includes 4 x 10 ml blood collection tubes
1167597	N/A	EPS Insulated Shipper	Overpack for Models 0352832	14 x 14 x 14 ⅝	Infectious substance & miscellaneous dangerous goods	Foam insert holds up to 11.3 kg [25 lb] of dry ice in place
03600148	0.5 liter transparent container	Compartmentalized bubble pouch	Six tubes	4 x 4 x 6¾	Infectious substance & diagnostic	Liquid-tight container withstands up to 95 kPa pressure
03600149	1.0 liter transparent container	Compartmentalized bubble pouch	Up to 50 ml	6¼ x 6¼ x 7½	Infectious substance	Liquid-tight container withstands up to 95kPa pressure; vessel is autoclavable for re-use



Note: Compliance with UN/DOT regulations governing shipments of infectious substances in these approved shippers is contingent on the use of all supplied components. The Shipper is ultimately responsible for determining the suitability of packaging for use with contents. Consult appropriate regulations.

ThermoSafe®

LabMailer

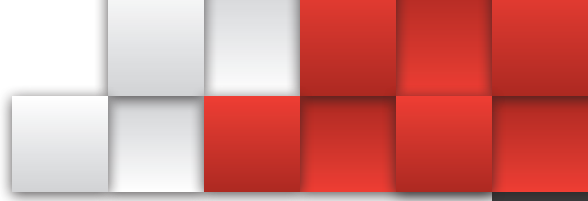
VIAL SHIPPERS

This unique array of shipping systems protects frozen and refrigerated shipping vials. These ready-to-use kits include everything to keep sensitive goods in top condition. Just load your product, add a U-tek® phase change material pack, and close the shipper.

- Shippers (Models 0352811 and 1167547) also include U-tek and reusable polyethylene platform
- This series of Shippers (Models 1167627A and 1167626A) also include flexible polyurethane foam cushion



Model	Holds	Dimensions		Includes
		Inner L x W x H (in)	Outer L x W x H (in)	
0352811	(12) 28 ml vials	8 x 6 x 7	11 x 9 x 10	EPS container and lid, 24 oz [680 g] U-tek phase change material, reusable polyethylene platform and corrugated shipping carton
1167547	(48) 28 ml vials	12 x 10¼ x 5½	14 7⁄8 x 13 ¼ x 8 ¼	
1167627A	(24) 16–20 ml vials	8 x 6 x 7	11 x 9 x 10	EPS container and lid, corrugated shipping carton and 24-hole flexible foam insert
1167626A	(48) 16–20 ml vials	12 x 10¼ x 5½	14 7⁄8 x 13 ¼ x 8 ¼	



MINI MAILERS — for temperature-sensitive shipments

- Compact protection for temperature-sensitive shipments, ideal for serums, tissues, and reagents
- Accommodate tubes, vials, ampules, small bottles, petri dishes, cans, and tissue flasks with space for refrigerants
- Insulating, thick-wall polystyrene foam construction
- Walls on Model 0352810 are 1 in. [25 mm] thick
- Maximum breakage protection for non-hazardous laboratory specimens. Ideal for biological, environmental, research & development, public health, industrial hygiene, and veterinary use
- Reusable and recyclable
- Standard mailing sleeves available

Recommended Mailing Sleeve	Foam Mailer	L x W x H (in)	Sleeves/Case
03527A	03527	6 x 2 ³ / ₈ x 2 ¹ / ₈	300
0352523A	0352522A	5 ⁵ / ₈ x 3 ¹ / ₂ x 1 ⁷ / ₈	300
0353125, 03528A	03528, 0353120	5 ³ / ₈ x 4 ⁵ / ₈ x 1 ⁵ / ₈	300
0352535	03600165	6 ⁵ / ₈ x 5 ⁵ / ₈ x 1 ⁷ / ₈	200
0353040	0353035	8 ¹ / ₈ x 4 ³ / ₄ x 1 ⁵ / ₈	200
		8 x 6 x 5 ¹ / ₄	96 24
0353010	035305	10 ¹ / ₄ x 8 ³ / ₄ x 1 ⁷ / ₈	200

See pages 32-33 for information about Foam Mailers.

LAB MAILERS

Maximum breakage protection for known non-hazardous blood, serum, tissue, and other specimens. Accommodates VacuTainer,[®] Microtainer[®] and other collection/transport tubes*

Available in multi-tube, slide, and tube/slide combinations. Lightweight, reusable and recyclable

*Trademarks of Becton Dickinson

HISTOPATHOLOGY MAILER 03600164

This versatile combination mailer carries 10 vials, 2 slide packets, or 5 vials, and 1 slide packet. Cavities measure 105 mm long x 13 mm in dia.

Suitable for use with Model 03528A mailing sleeve.



MAILING SLEEVES 0353125 & 0353010

Sturdy 18-point white paperboard sleeves increase the cost-effectiveness of foam mailers. Reverse tuck closures enable foam mailers to withstand multiple trips

Sleeves 0353125 & 0353010 are printed



MODEL 0352815 ECONOMY PACK

Includes:

- 24 – Model 0352810 Mini Mailers
- 36 – Model 0353047 U-tek[®] refrigerant packs -23°C (-10°F)

MODEL 035289 ECONOMY PACK

Includes:

- 24 – Model 0352810 Mini Mailers
- 36 – Model 035286 U-tek refrigerant packs -1°C (+30°F)

See page 21 for more information on U-tek refrigerant packs.



ThermoSafe®

LabMailer



03529



035295A



0352534B

Shown with optional mailing sleeve 035295B

Shown with optional mailing sleeve 0352523B

Model	Holds	Cavity Dimensions (in)	Outside Dimensions L x W x H (in)	Recommended Mailing Sleeve
03529	Cans, screw-cap vials, tubes, swabs, air filter cartridges	8 x 2¼ x 1½	9½ x 3 x 2¾	03529A
035295A	Specimen tubes, vials, swabs	5⅞ x 1½ x 1½	7 x 2½ x 2½	035295B
0352534B	Tubes, vials, cans, bottles. Can be used with Poly-Pad foam cushion to keep containers from shifting	4 x 3½ x 3¼	5¼ x 4¾ x 4¾	0352523B
03600166	1 or 2 standard petri dishes	4 x 1½ x 4	5¼ x 5 x 2½	N/A
035202	10 standard petri dishes	6¼ x 3¾ x 4	7½ x 4⅞ x 5	035204
0352831	Bottles, cans, vials, cups. Can be fitted with foam insert to hold small kit components	6 x 3 x 2½	7 x 4 x 3½	035256
03525B	100ml sample containers, 4 oz [113 g] urine cup	3¾ x 2¼ x 1½	4¾ x 3¾ x 3¼	03525C
0352810	Vials, tubes, small bottles, tissue flasks with growth area of 75 cm ² . Can be used with Model 035206 (flexible foam pad)	5⅞ x 4¾ x 3	8 x 6½ x 5⅞	0352814, 035207
0352531	2 oz [57 g] bottle or Model 0352012 (aluminum can)	3¼ x 2 dia.	4¾ x 3¼ x 3¼	03600167
03531	Tubes, vials, ampules	4¼ x 6¾ dia.	10 x 10 x 7½	Corrugated carton included



035202

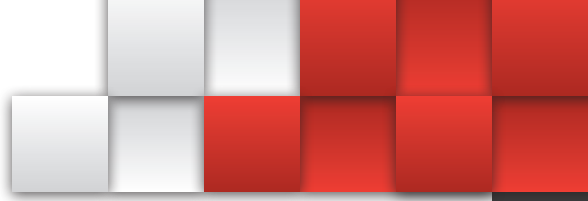


03525B



0352531

Shown with optional mailing sleeve 03525C



Model	Holds Tube/Slide Specifications				Outside Dimensions L x W x H (in)	Tube Cavity Dimensions (mm)	Recommended Mailing Sleeve
	Tubes	Slides	Tube Vol. (ml)	Tube Dimensions (mm)			
03527	1	N/A	3, 5, 7, 10	Dia.: 10.25 to 16 Length: 75 to 103	5¾ x 2¼ x 2	110 x 16	03527A
0352522A	2	2	5, 7, 10	Dia.: 10.25 to 16 Length: 75 to 103	5½ x 3½ x 1¾	107 x 16	0352523A
03528	3	N/A	3, 5, 7, 10	Dia.: 10.25 to 16 Length: 75 to 103	5½ x 4½ x 1¼	105 x 17	03528A
03600165	4	8	7, 10	Dia.: 16 Length: 75 to 100	6¾ x 5½ x 1¾	110 x 19	0352535
0353120	5	N/A	3, 5	Dia.: 10.25 to 13 Length: 75 to 103	5½ x 4½ x 1½	105 x 13	03528A, 0353125
0353035	5	N/A	7, 10, 15, 25	Dia.: 16 Length: 75 to 150	7⅞ x 5¼ x 1½	170 x 16	0353040
035305	8	8	5, 7, 10	Dia.: 10.25 to 16 Length: 75 to 103	10 x 5½ x 1¾	113 x 18	0353010
03526	N/A	10	N/A	N/A	4 x 2½ x 2	N/A	03526A



03527



03528

Shown with optional mailing sleeve 03528A



03526



03600165

Shown with optional mailing sleeve 0352535

ALUMINUM CANS

Accommodates most widely used laboratory collection tubes, vials, and bottles. Helps prevent breakage during handling and shipment. Seamless construction with lined screw-caps to prevent leakage. Completely autoclavable. EPS foam mailers and mailing sleeves available.

Model	Dimensions (in)		Recommended EPS Mailer
	Can	Outer (L x W x H)	
0352012	1¾ dia. x 4¾	2 dia. x 4⅞	03525
0353048	2½ dia. x 6	2⅝ dia. x 6	N/A



0353048



0352012

Shown with optional mailer 03525



ThermoSafe®

LabWare

ThermoSafe® LabWare shippers are versatile insulated shippers that aid temperature-sensitive enzymes and reagents at workstations. Durable components are designed for convenience while in transit or in-use. These shippers are lightweight and easy to handle.



LABTOP COOLER 0352823

Protects temperature-sensitive enzymes and reagents. Maintains product between -18°C and -16°C (0°F and 2°F) for up to 10 hours. Includes two sets of cold cells U-tek® phase change materials packs.

Holds: 15 x 0.5 ml and 15 x 1.5 ml tubes

Measures:

9 x 6½ x 6 in [229 x 165 x 152 mm]

LOW-TEMP CHILLER 03001211

Economical cold trap or alcohol/dry ice bath. Convenient shallow depth has 1½ in [38 mm] insulating walls.

Holds: wet or dry ice, alcohol

Measures:

ID – 19¾ x 11¼ x 3¾ in [564 x 286 x 98 mm]

OD – 22¾ x 14¾ x 7¼ in [575 x 378 x 184 mm]



TUBE RACK SHIPPER 416

Lightweight shipper ideal for holding, storing, and shipping environmental samples and lab specimens. Made of expanded polystyrene (EPS). Shown with optional mailing carton, 0352540.

Holds: Up to 48 tubes of varying diameters and lengths

Measures: 13 x 5 x 3 in [330 x 127 x 76 mm]



ThermoSafe® PackagingMaterial



METALLIZED BUBBLE POUCH WITH SELF SEALING LIP AND TAPE

Lightweight and easy to use. Saves inventory space
Constructed of 3/16 in. [9 mm] metallized bubble
with 2 in. [51 mm] lip and tape

Model	Dimensions (in)	Case Pack
03600154	8 x 11	350
03600155	12 x 11	250
03600156	12 x 17	200
03600158	12 x 23	150
03600159	18 x 23	100



ABSORBENT SHEETS

Designed to absorb and encapsulate spills in accordance with UN/DOT regulations, U.S. Postal Service, and recommendations for the packaging and transportation of diagnostic specimens, biological materials, and other dangerous goods. Tissue-based paper substrate constructed with super-absorbent polymers help prevent leakage, and possible contamination.

Model	Dimensions (in)	Sheet Capacity	Case Pack
0353162	3 x 3	90 ml of water 22.5 ml blood	10,000
03600160	6 x 6	360 ml of water 90 ml blood	500
03600161	12 x 12	1440 ml of water 360 ml blood	500

DRY ICE MACHINE - ULTRA 0352559

Ideal for tissue preservation, specimen shipping, and biologicals manufacturing. The latest design in benchtop dry ice making utilizes a patented heat exchange technology. No need to dismantle machine to retrieve dry ice block. Provides up to 30% better yield from a standard 50 lb CO₂ cylinder (with siphon).



ThermoSafe®

Storage/TransportChest



ThermoSafe Storage and Chests provide mobile, non-electrical low temperature maintenance for a wide variety of laboratory and field applications. Ideal for demanding cryogenic and laboratory testing, as well as, the transport and storage of temperature sensitive specimens. Models available with rugged polythene interior and exterior casings and lightweight laminated fiberboard and EPS foam interiors.

HARD CASED UNITS

- Deluxe containers provide years of trouble-free service. Ideal for dry ice/wet ice storage, field collection, cryogenic testing, and frozen specimen storage
- Rugged polyethylene interior and exterior casing, and super-efficient, non-deteriorating poly-urethane foam insulation
- Rounded interior corners for easy clean-up
- Detachable lid makes Model 1167613 perfect for storing dry ice at the bench top

Model	Volume [ft ³]	~Dry Ice Capacity (lb)	Average Holding Time ⁺	Wall Thickness (in)	Dimensions L x W x H (in)		Empty Weight (lb)	Hardware
					Inner	Outer		
Polyethylene casing with urethane foam insulation R-value: 1.1Km ² /W [6.2 per inch]								
1167613	0.7	50	7 days	1¾	11 ⁵ / ₁₆ x 10 ³ / ₈ x 10 ¹ / ₄	15 x 14 ¹ / ₁₆ x 13 ¹ / ₂	12	N/A
0353041	0.7	50	7 days	1¾	11 ⁵ / ₁₆ x 10 ³ / ₈ x 10 ¹ / ₄	15 x 14 ¹ / ₁₆ x 13 ¹ / ₂	12	Lid hinge w/2 latches; carrying handle
0353027	1.0	80	10 days	2¼	16 ¹¹ / ₁₆ x 10 ¹ / ₄ x 10 ¹ / ₂	2 ¹⁵ / ₁₆ x 14 ⁷ / ₈ x 13 ⁵ / ₈	16	Lid hinge w/stay and 2 latches; carrying handle
1167639	1.5	85	6	2	15 ¹ / ₈ x 13 ³ / ₄ x 12 ⁵ / ₈	19 ⁷ / ₈ x 18 ⁵ / ₈ x 16 ⁵ / ₈	27	Lid hinge with stay; 2 latches; 2 spring loaded handles
1167611	2.7	150	7	2¼	17 x 16 ¹ / ₂ x 16 ³ / ₈	23 ¹ / ₈ x 22 ¹ / ₈ x 21 ¹ / ₄	35	Lid hinge with stay; 2 latches; 2 spring loaded handles
1167620	3.75	200	12	2	22 ¹³ / ₁₆ x 13 ¹ / ₂ x 21	28 ³ / ₈ x 19 ¹ / ₈ x 25 ¹ / ₄	39	Lid hinge with stay & 2 latches

~ Weight calculated using pelletized dry ice. + Average time before full sublimation.

FIBERBOARD UNITS

- Mobile storage chests are available in five models with capacities from .44 to 1.6 cu. ft. [12 to 45 liter]
- Lightweight, value-priced low-temperature storage
- 275 lb [124 kg] bursting test laminated fiberboard exterior and EPS foam interior
- Tight-fitting plug lid
- Optional handling accessories available



Model	Volume (ft ³)	~Dry Ice Capacity (lb)	Average Holding Time ⁺	Wall Thickness (in)	Dimensions L x W x H (in)		Empty Weight (lb)	Hardware & Handling Accessories
					Inner	Outer		
Laminated fiberboard with EPS insulation					R-value: 0.74 Km ² /W [4.2 per inch]			
03530	0.44	24	1.9 days	1½	10½ x 7¼ x 10	13¾ x 10½ x 13½	3	N/A
1167615	0.60	33	2.6 days	1½	11¾ x 10 x 8⅝	15⅝ x 13⅝ x 12⅝	4	N/A
1167610	1.0	54	5.5 days	2	12 x 12 x 11½	16 x 16 x 15½	7	Included: Carrying strap [no handles]
0352533	1.5	81	6.5 days	1½	19 ⅜ x 12 ⅜ x 12 ¹⁵ / ₁₆	22 ⅜ x 15 ⅜ x 15 ⅜	6	Included: Carrying strap [no handles]
0352510	1.6	87	7 days	1½	17 x 9 ⅞ x 16 ½	20 ⅞ x 13 ¼ x 19 ½	6	Included: Carrying strap [no handles]
1167612	2.0	120	11	2	17 x 16 ½ x 12 ⅝	21 x 21 x 16 ⅜	8	N/A
1167617	2.5	130	11.5	2	16 ¾ x 16 ¾ x 15 ¾	21 x 21 x 19 ¾	9	N/A
1167618	4.3	270	18 days	2½	23 ⅞ x 14 ⅞ x 23	27 ⅞ x 19 x 28	14½	N/A

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Durable Insulated Containers

ThermoSafe Durable Insulated Containers maintain critical temperatures for your laboratory specific materials. These rugged containers are the most popular design for the transport and storage of dry ice and temperature-sensitive specimens. Our insulated containers are uniquely compact and designed to maneuver in tight spaces. Double-wall polyethylene construction filled with urethane foam insulation maintains dry ice quality.

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Model	Capacity (ft ³)	Dry Ice Pellets (lb)	Dimensions L x W x H (in)		Tare Weight (lb)
			Inner	Outer	
03600168	4	200	22 x 12 x 26	26 x 16 x 33	47
0353101	11	570	36½ x 21 x 24	43 x 27½ x 35¼	107
0353102	11	570	36½ x 21 x 24	43 x 27½ x 39½	128
03001260	19	990	37 x 41 x 20	43 x 48 x 31¾	165
03001261	27	1,400	37 x 41 x 29	43 x 48 x 40½	188
03001262	30	1,450	37 x 41 x 31	43 x 48 x 41½	193
03001263	30	1,450	37 x 41 x 31	43 x 48 x 41½	243
03001264	74	N/A	54 x 41 x 56½	61¼ x 48½ x 81	550

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