

BREEDER DEWARS SOLUTION

By Antech Scientific



▶ Company Profile

ANTECH Group is committed to offering high quality laboratory instruments and medical products while matching to the unique needs of customer. Our dedication is to provide quality instruments with lifetime care.

Antech Group sets its production facilities in 5 cities. The product lines include:

Cold storage - Cryogenic freezer, ULT freezer, deep freezer, pharmacy refrigerator, blood bank refrigerator, vaccine refrigerator, mortuary freezer and cold room

Cryogenic storage - liquid nitrogen freezer, liquid nitrogen container and Dewar vessel

In accordance to our unique business philosophy, we always remind ourselves to avoid any short-sighted activities and to focus on long-term success and growth.

We Antech team treat our customers as long-term partners & life-time friends. We are very clear that any of our success comes and will come from satisfaction of our partners and customers. "Quality instruments, lifetime care" is commitment to our partners, as well as to ourselves.



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Introduction

CryoMajor series are economical small and medium size liquid nitrogen containers for long term static state storage. CryoMajor series are made of high strength and lightweight aluminum alloy. There is multilayer superior performance thermal insulation inside.

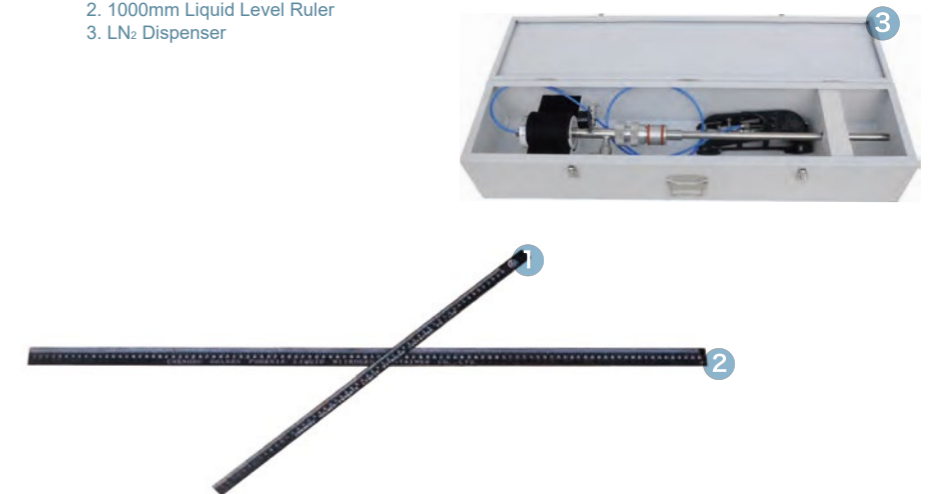
Various accessories are optional. Mainly apply to animal husbandry and laboratories.

Key Features

- | | |
|--|---|
| 1 High strength and lightweight aluminum construction | 5 Lockable lids |
| 2 Ultra-low evaporation losses | 6 Straw storage |
| 3 Numbered index canisters | 7 LN ₂ dispenser (optional) |
| 4 Mobile roller bases optional | 8 5 year vacuum warranty |

Important Accessories

1. 600mm Liquid Level Ruler
2. 1000mm Liquid Level Ruler
3. LN₂ Dispenser



CryoMajor series

Technical Parameters

Model	CryoMajor 2/35	CryoMajor 3/50	CryoMajor 6/50	CryoMajor 10/50	CryoMajor 13/50
Maximum Storage Capacity					
No. of Canisters	3	6	6	6	6
Number of Straws (0.5ml)	165	792	792	792	792
Number of Straws (0.25ml)	330	1788	1788	1788	1788
Performance					
Liquid N2 Capacity(L)	2	3	6	10	13
Static Evaporation(L/D)	0.08	0.12	0.12	0.12	0.12
Static Holdover time(Day)	24	26	52	86	109
Unit Dimensions					
Neck Diameter (mm)	35	50	50	50	50
Overall Height(mm)	428	435	482	552	623
External Diameter (mm)	204	223	300	300	310
Canister Diameter(mm)	25	38	38	38	38
Canister Height (mm)	120	120	120	120	120
Weight Empty (KG)	2.6	3.1	4.8	5.9	6.3
Weight Full (KG)	4.2	5.6	9.7	14.1	15.9

Model	CryoMajor13/50L	CryoMajor15/50	CryoMajor 20/50 CryoMajor 20/50L	CryoMajor 20/80 CryoMajor 20/80L
Maximum Storage Capacity				
No. of Canister	6	6	6	6
No. of Straws	—	792	792	2244
(1-level Canister)				
No. of Straws	1284	—	1284	—
(2-level Canister)	0.25ml	2832	—	—
Performance				
Liquid Nitrogen Capacity (L)	13	15	20	20
Static Evaporation (L/day)	0.12	0.11	0.12	0.21
Static Holdover time(Day)	108	134	166	95
Unit Dimensions				
Neck Opening (mm)	50	50	50	80
Overall Height (mm)	623	591	672	672
External Diameter (mm)	310	394	394	394
Canister External Diameter (mm)	38	38	38	63
Canister Height (mm)	276	120	120/276	276
Weight Empty (kg)	6.3	8.5	9.5	9.5
Weight Liquid Full (kg)	16.6	18.2	22.3	22.3

Technical Parameters

Model	CryoMajor 25/50 CryoMajor 25/50L	CryoMajor 30/50 CryoMajor 30/50L	CryoMajor 30/80 CryoMajor 30/80L	CryoMajor 30/125 CryoMajor 30/125L	CryoMajor 35/50 CryoMajor 35/50L
Maximum Storage Capacity					
No. of Canister	6	6	6	6	6
No. of Straws	792	792	2244	5124	792
(1-level Canister)					
No. of Straws	1284	1284	3624	9048	1284
(2-level Canister)	0.25ml	2832	8460	19944	2832
Performance					
Liquid Nitrogen Capacity (L)	25	31.5	31.5	31.5	35.5
Static Evaporation (L/day)	0.12	0.12	0.21	0.35	0.12
Static Holdover time(Day)	208	262	150	90	295
Unit Dimensions					
Neck Opening (mm)	50	50	80	125	50
Overall Height (mm)	700	706	710	705	750
External Diameter (mm)	394	462	462	462	462
Canister External Diameter (mm)	38	38	63	97	38
Canister Height (mm)	120/276	120/276	120/276	120/276	120/276
Weight Empty (kg)	10.7	12.9	13.1	12.9	14.2
Weight Liquid Full (kg)	26.4	31.7	31.7	38.7	35.0

Model	CryoMajor 35/80 CryoMajor 35/80L	CryoMajor35/125T CryoMajor35/125TL	CryoMajor47/127 CryoMajor47/127L	CryoMajor47/127T CryoMajor47/127TL	CryoMajor50B/50 CryoMajor50B/50L	CryoMajor50B/125 CryoMajor50B/125L
Maximum Storage Capacity						
No. of Canister	6	10	6	10	6	6
No. of Straws	2244	8540	5124	8540	792	5124
(1-level Canister)						
No. of Straws	9048	15080	9048	15080	1284	9048
(2-level Canister)	0.25ml	33240	19944	33240	2832	19944
Performance						
Liquid Nitrogen Capacity (L)	35.5	35.5	47	47	50	50
Static Evaporation (L/day)	0.12	0.36	0.36	0.36	0.23	0.45
Static Holdover time(Day)	295	98	130	130	217	111
Unit Dimensions						
Neck Opening (mm)	50	125	125	127	50	125
Overall Height (mm)	750	748	718	718	811	818
External Diameter (mm)	462	462	508	508	462	462
Canister External Diameter (mm)	38	70	97	72	63	97
Canister Height (mm)	120/276	120/276	120/276	120/276	120/276	120/276
Weight Empty (kg)	14.2	14.2	15	15	15.2	15.4
Weight Liquid Full(kg)	35.0	46.2	53.54	55.6	55.4	56.2

Remark:
 1. Model number end without "L" are supplied with 110mm or 120mm length canister. One layer of straws can be loaded.
 2. Model number end with "L" are supplied with 260mm or 276mm length canister. Two layers of straws can be loaded.
 3. For example, CryoMajor30/50 is supplied with canister height 120mm, while CryoMajor 30/50L is supplied with canister height 276mm.

New Products and Canes

Technical Parameters



(CryoMajor 35/125T)

CryoMajor series will be also used to store 0.5ML-5ML vials with cane. The storage quantity shown in the table below:

Vials Model	Length 120mm, Diameter 38mm (50 neck opening)				Length 276mm, Diameter 38mm (50 neck opening)			
	Number of Cane/ Canister	Number of Vials/ Cane	Number of Vials/ Canister	Number of Vials/ Tank	Number of Cane/ Canister	Number of Vials/ Cane	Number of Vials/ Canister	Number of Vials/ Tank
0.5ml	3	3	9	54	3	6	18	108
1.5ml	3	3	9	54	3	6	18	108
2ml	3	3	9	54	3	6	18	108
3ml	3	3	9	54	3	6	18	108
5ml	3	1	3	18	3	3	9	54

Vials Model	Length 120mm, Diameter 63mm (80 neck opening)				Length 276mm, Diameter 63mm (80 neck opening)			
	Number of Cane/ Canister	Number of Vials/ Cane	Number of Vials/ Canister	Number of Vials/ Tank	Number of Cane/ Canister	Number of Vials/ Cane	Number of Vials/ Canister	Number of Vials/ Tank
0.5ml	11	3	33	198	11	6	66	396
1.5ml	11	3	33	198	11	6	66	396
2ml	11	3	33	198	11	6	66	396
3ml	11	3	33	198	11	6	66	396
5ml	11	1	11	66	11	3	33	198

Vials Model	Length 120mm, Diameter 97mm (125 neck opening)				Length 276mm, Diameter 97mm (125 neck opening)			
	Number of Cane/ Canister	Number of Vials/ Cane	Number of Vials/ Canister	Number of Vials/ Tank	Number of Cane/ Canister	Number of Vials/ Cane	Number of Vials/ Canister	Number of Vials/ Tank
0.5ml	27	3	81	486	27	6	162	972
1.5ml	27	3	81	486	27	6	162	972
2ml	27	3	81	486	27	6	162	972
3ml	27	3	81	486	27	6	162	972
5ml	27	1	27	162	27	3	81	486

Introduction

CryoTrans series is designed for storage and short-distance transportation of small amount of liquid nitrogen. It is equipped with rubber protection rings and prefixed bottom pad for safety. Stainless steel roller base is optional for convenient transportation. Cryo Trans series is widely used in animal husbandry and laboratories.

Key Features

- 1 Strong, lightweight aluminum construction
- 2 Low liquid nitrogen evaporation
- 3 Special liquid nitrogen transportation design
- 4 CE Certificate
- 5 5-year vacuum warranty

Important Accessories

1. Liquid nitrogen level ruler
2. Roller base.



Technical Parameters

Model	CryoTrans 3	CryoTrans 6	CryoTrans 10	CryoTrans 20	CryoTrans 30	CryoTrans 35	CryoTrans 50
Performance							
Capacity (L)	3	6	10	20	30	35	50
Neck Diameter (mm)	50	50	50	50	50	50	50
Static Evaporation Rate (L/day)	0.12	0.12	0.12	0.12	0.12	0.12	0.23
Unit Dimensions							
Overall Height (mm)	435	482	552	672	706	750	811
External Diameter (mm)	223	300	300	394	462	462	462
Weight Empty (KG)	3.1	4.8	5.9	10.1	13.3	14.4	15.4
Weight Full (KG)	5.56	9.72	14.1	25.9	37.5	42.9	56.4

CryoTrans series



CryoCarrier series

Introduction

CryoCarrier series is dry shipper containers. It is designed for biology, livestock breeding, research and medical fields and enables the biological samples, straws, cryovials or blood bags to transport below -150 °C environment. There is liquid nitrogen absorbent materials placed in the inner tank, which avoids the risk of outflow of liquid nitrogen. The CryoCarrier dry shipper meets the IATA and protect your valuable samples in safe conditions for both users and transporters during transportation.

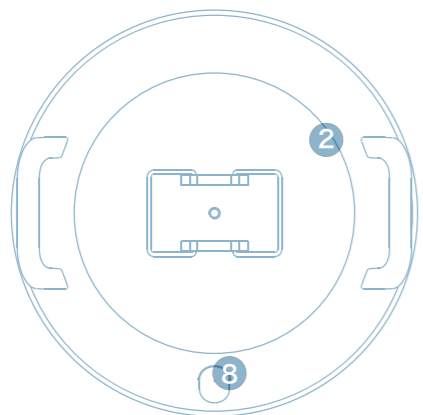
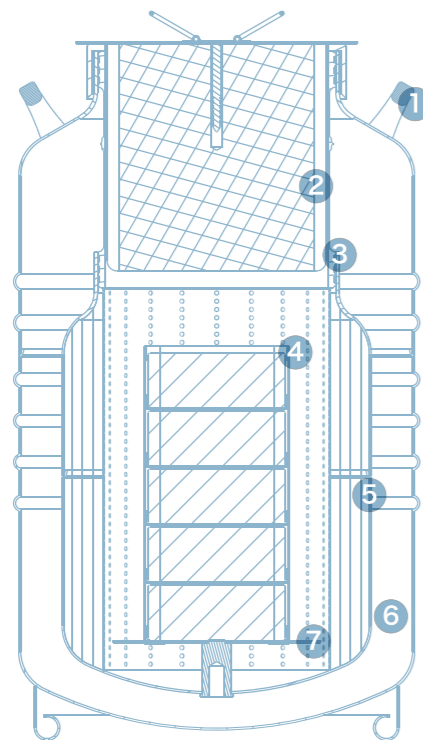
Key Features

- 1 Vapor phase cryogenic storage
- 2 Robust and durable aluminum construction
- 3 Lockable lids
- 4 No spillage of liquid nitrogen
- 5 Available for biological samples straws, cryovials or blood bags
- 6 3 years vacuum warranty



Advantages

- 1 Reliable absorption materials, rapid absorption of liquid N2
- 2 Meet the standard of IATA (The international Transport Association)
- 3 Excellent products construction and superior vacuum performance to ensures the maximum storage time
- 4 Unique stainless steel screen construction ensures samples storage space clean
- 5 All models optional equipped with liquid level monitor



1. Handles
2. Cap Plug
3. Neck Tube
4. Canister
5. Liquid Nitrogen Absorption Layer
6. Vacuum Jacket
7. Stage
8. Vacuum Sealing Joint

Technical Parameters

Model		CryoCarrier 3	CryoCarrier 6	CryoCarrier 8	CryoCarrier 10L CryoCarrier 10R	CryoCarrier 25R
Maximum Storage Capacity						
Straws	Number of Canister	1	1	1	1	1
	Number of Straws (0.5ml)	132	820	820	1508	—
	Number of Straws (0.25ml)	298	1780	1780	3324	—
Vials	No. of Rack	—	—	—	1	1
	Layer of Rack	—	—	—	4	5
	1.2ml/2ml Vials	—	—	—	100	500
Blood Bags (25ml)	No. of Rack	—	—	—	1	1
	Layer of Rack	—	—	—	2	3
	Number of 25ml bags	—	—	—	6	45
Blood Bags (50ml)	No. of Rack	—	—	—	1	1
	Layer of Rack	—	—	—	1	2
	Number of 50ml bags	—	—	—	3	30

Performance					
Capacity (L)	3	7.5	8.0	10	25
Static Evaporation Rate (L/Day)	0.16	0.20	0.22	0.43	0.84
Static holdover time (Day)	20	37	35	23	29

Unit Dimensions					
Neck Diameter (mm)	50	80	80	125	216
Overall Height (mm)	428	487	509	555	678
External Diameter (mm)	223	300	300	300	394
Canister Diameter (mm)	38	63	63	97	—
Canister Height (mm)	120	120	120	276	—
Weight Empty (KG)	3.2	4.9	6.2	5.9	11.2
Weight Full (KG)	4.3	7.3	9.0	8.7	19.0

★ Static evaporation rate and static holding time are nominal. Actual rate and holding time will be affected by the condition of container usage, atmospheric conditions, and manufacturing tolerances.

★★ Normal Working Duration is just an arbitrary reference, applying to estimate container performance under normal operating conditions. Actual working time may vary due to atmospheric conditions, container usage history, manufacturing tolerances and individual patterns of usage. Divide static holding days by 1.6, and you get empirical value.

Introduction

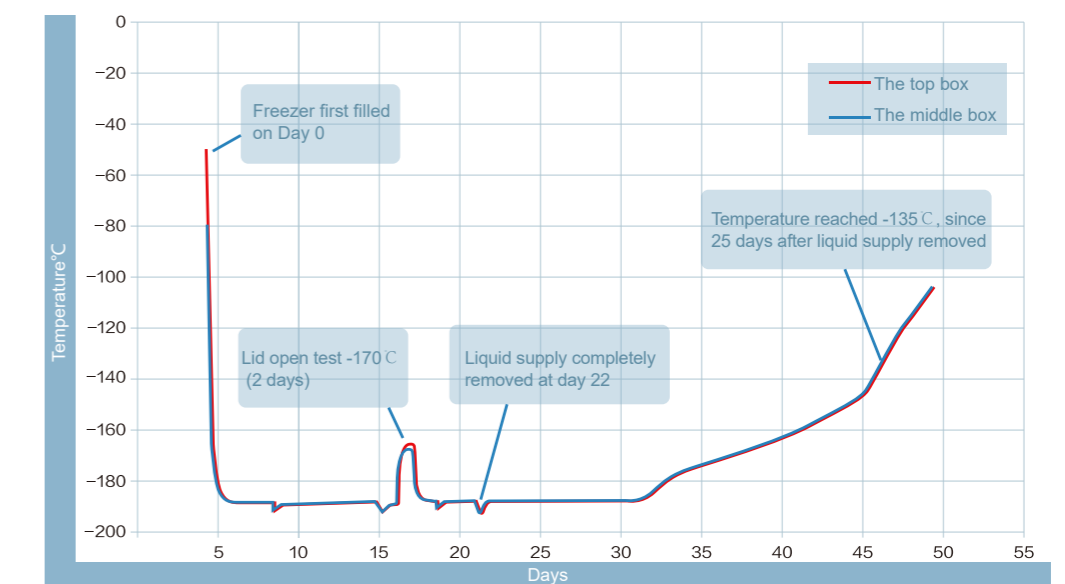
CryoMatrix series breeder tanks provide the user with a fully automatic, safe and reliable cryogenic liquid nitrogen storage system. The sample can be stored either in liquid phase (-196°C) or vapor phase (-180°C). Microcomputer touch control system CryMonitor 3000 provides convenience and security.

Cryomatrix series adopt advanced technology and super vacuum thermal insulation technology to assure the safety of the barrier-free sample storage and good properties uniform temperature and characteristics of the minimum consumption of liquid nitrogen. Even if it is gas storage, the whole storage area temperature difference is less than 10°C.

Key Features

- 1 Dry sample storage
- 2 -190°C at top
- 3 Maximum capacity of liquid nitrogen storage capacity below rotating tray
- 4 One-piece folding stage
- 5 Automatically liquid nitrogen supply
- 6 Storage a variety of blood bags
- 7 De-Fog and liquid nitrogen splash proof
- 8 5 years vacuum warranty
- 9 CE certification

Temperature Test Graph



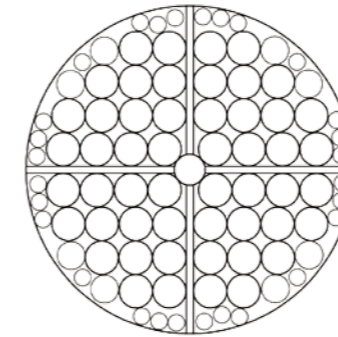
CryoMatrix series

CryoMonitor 3000 Intelligent Control System

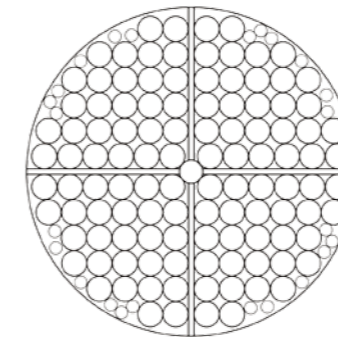


- 1 Automatically filling liquid nitrogen
- 2 Liquid nitrogen splash proof structure
- 3 Triple solenoid valve structure
- 4 Platinum resistance temperature sensor
- 5 Differential pressure type liquid level sensor
- 6 Recording temperature and alarm data, automatically
- 7 Remote monitoring
- 8 Self-diagnosis
- 9 User authority setting
- 10 Run/alarm parameters setting
- 11 Abnormal alarm to reminder
- 12 Standby power and UPS power
- 13 Cloud storage database center(optional)

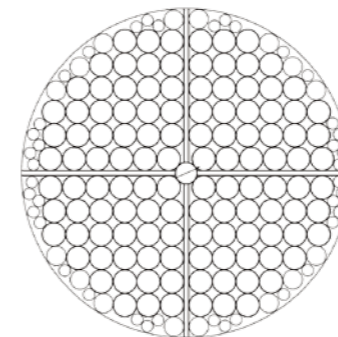
RackLayouts



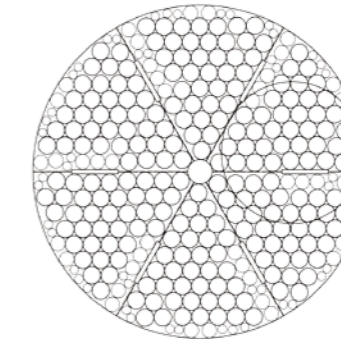
CryoMatrix 13k/19K



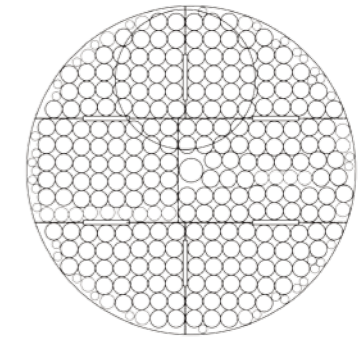
CryoMatrix 26k/36K



CryoMatrix 43k/50K



CryoMatrix 59k/76K/88K



CryoMatrix 95K



Technical Parameters

Model CryoMatrix 13K CryoMatrix 19K CryoMatrix 26K CryoMatrix 36K CryoMatrix 43K

Maximum storage capacity					
Number of Straws (0.5ml)	111312	131220	203040	253800	304920
Number of Straws (0.25ml)	254592	301120	468544	585680	699360
Number of Canister (Φ76)	52	52	112	112	120
Number of Canister (Φ63)	8	8	0	0	16
Number of Canister (Φ38)	28	12	24	24	40
Number of Canister storey	4	5	4	5	5
Canister storey Height(mm)	135	135	135	135	135

Performance					
Liquid nitrogen capacity (L) (Liquid phase storage)	350	460	587	783	890
Liquid nitrogen capacity (L) (Vapor phase storage)	55	55	80	80	135
Static evaporation (%)	1.55	1.45	1.35	1.25	0.85

Unit Dimensions					
Neck Diameter (mm)	326	326	445	445	465
Overall Height (mm)	1326	1558	1321	1591	1559
Operated Height (mm)	1263	1212	1266	1216	980
Outside Diameter (mm)	875	875	1104	1104	1190
Door Width Requirement** (mm)	895	895	1124	1124	1210
Weight Empty (kg)	219	277	328	372	441
Weight Liquid Full* (kg)	502	649	802	1005	1160

★Static evaporation rate and static holding time are nominal. Actual rate and holding time will be affected by the condition of container usage, atmospheric conditions and manufacturing tolerances.

Technical Parameters

Model CryoMatrix 50K CryoMatrix 59K CryoMatrix 76K CryoMatrix 95K CryoMatrix128K

Maximum storage capacity					
Number of Straws (0.5ml)	365904	480168	600210	671166	919548
Number of Straws (0.25ml)	839232	1101000	1376250	1543884	2119096
Number of Canister (Φ76)	120	234	234	232	282
Number of Canister (Φ63)	16	42	42	24	16
Number of Canister (Φ38)	40	54	54	39	44
Number of Canister storey	6	4	5	6	7
Canister storey Height(mm)	135	135	135	135	135

Performance					
Liquid nitrogen capacity (L) (Liquid phase storage)	1014	1340	1660	1880	2270
Liquid nitrogen capacity (L) (Vapor phase storage)	135	265	300	320	262
Static evaporation (%)	0.82	0.95	0.75	0.75	0.65

Unit Dimensions					
Neck Diameter (mm)	465	635	635	635	635
Overall Height (mm)	1704	1398	1589	1883	1679
Operated Height (mm)	950	997	967	1097	1120
Outside Diameter (mm)	1190	1565	1565	1565	1565
Door Width Requirement** (mm)	1210	1585	1585	1585	1705
Weight Empty (kg)	495	851	914	985	920
Weight Liquid Full* (kg)	1314	1934	2255	2504	2754

★Static evaporation rate and static holding time are nominal. Actual rate and holding time will be affected by the condition of container usage, atmospheric conditions and manufacturing tolerances.

