Translation of
Validation Summary Report

DOMETIC MT8B

Original report in German established by

MEDIC ONE
quality management

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Validation of the Dometic MT8B Containment for the Transport of Blood Preparations

1 Introduction

Object of the validation is the transport of erythrocyte concentrates (EC) in the Dometic MT8B transport container whilst maintaining the cold chain required for these preparations. The relevant German and European laws and directives require a storage temperature of 4°C ± 2K or a transport temperature between 1°C and 10°C.

The question of this validation is under what environmental conditions can erythrocyte concentrates be transported legally safely (and therefore without quality loss) over what period using the Dometic MT8B.

2 Basic Conditions

2.1 Description of System

The transport containers of the Dometic Series MT8B are cooled passively by means of ice packs. The casings are manufactured by rotation process and receive an insulation of polyurethane foam. The complete functional unit always consists of an outer and an inner container.

Summary of Individual Features

Description	MT8B
Outer dimensions (HxWxD in mm)	435x590x290
Weight	7.0 kg
Gross interior volume	18 litres
Storage capacity (ECs at 270 ml each)	14 blood bags
Number of ice packs (at 600 ml each)	
at 2°C to +10°C outside temperature	None
at +10°C to +20°C outside temperature	2
at outside temperature of above +20°C	4

In order to compensate for statistical deviations and series variations, three different test patterns are used for this validation.

2.2 Ambient Temperatures

Three ambient temperature ranges have been chosen for this validation: +10°C, +32°C, and +43°C. As minimum or maximum limits, these temperature ranges cover more than 90% of the transport scenarios imaginable for Central Europe, including safety margins.

2.3 Charge

For the 24 hours tests at +32°C and +43°C the typical lower charge limit of blood bags is chosen as charge. These low charge levels are more unstable, and the resulting test readings are very telling in respect to critical temperature ranges. With increasing charges the preparations' temperatures in the secondary container become increasingly stable. In fact this means a charge of 2 blood bags at 270 ml each.
In order to determine the Maximum Cold Life at +32°C and +43°C, the maximum charge (i.e. 14 blood bags at 270 ml each) is used to determine the absolute performance limits.

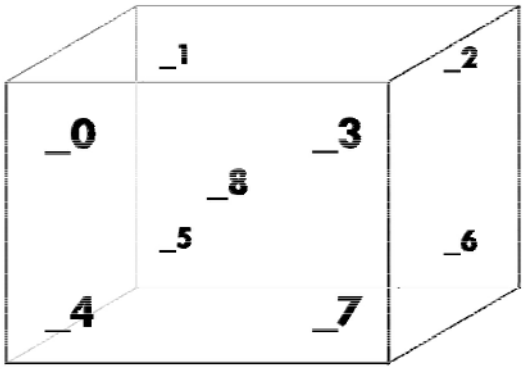
2.4 Time Frame

The validation is carried out for a transport time of 24 hours. This period covers almost 100% of the genuine range of usage times for Central Europe.

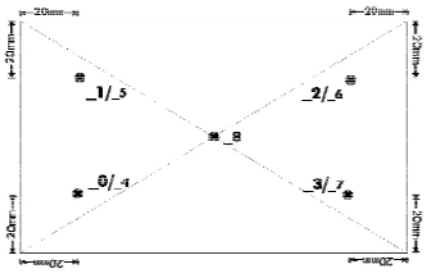
In addition, the time value "Maximum Cold Life" is determined for the ambient temperature ranges +32°C and +43°C. This value indicates the maximum amount of time the blood products can be held in the defined transport temperature ranges.

2.5 Check Points

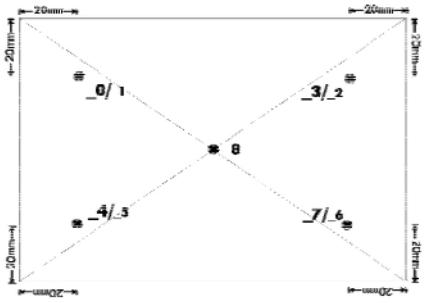
The recording of test readings is carried out at ten points in the interior container of the transport container: eight check points in the corners of the container, always at a distance of two centimeters of all three nearest side walls, one check point at the intersection of the diagonals, and another one inside a blood bag. If more than one blood bag is used, the bag containing the sensor is placed in the centre.



Top View



Front View



The erythrocyte concentrate is substituted by a mixture consisting of 110 ml PAGGS-M and 160 ml HAES-Sterile 6% infusion solution. This mixture has very similar characteristics with respect to density and viscosity. Composelect by Fresenius HemoCare is used as blood bags.

2.6 Other

The ice packs are frozen to a core temperature of between -18°C and -22°C by storing them for at least 24 hours at the corresponding temperature. Before the boxes are equipped with the cooling elements, the elements are allowed to defrost at room temperature for 15-30 minutes.

Before starting a series of readings, the open (both interior and outer container are open) transport containers are exposed to the ambient temperature for at least six hours.

Test Readings

MT8B

At an outside temperature of +10°C over 24 hours

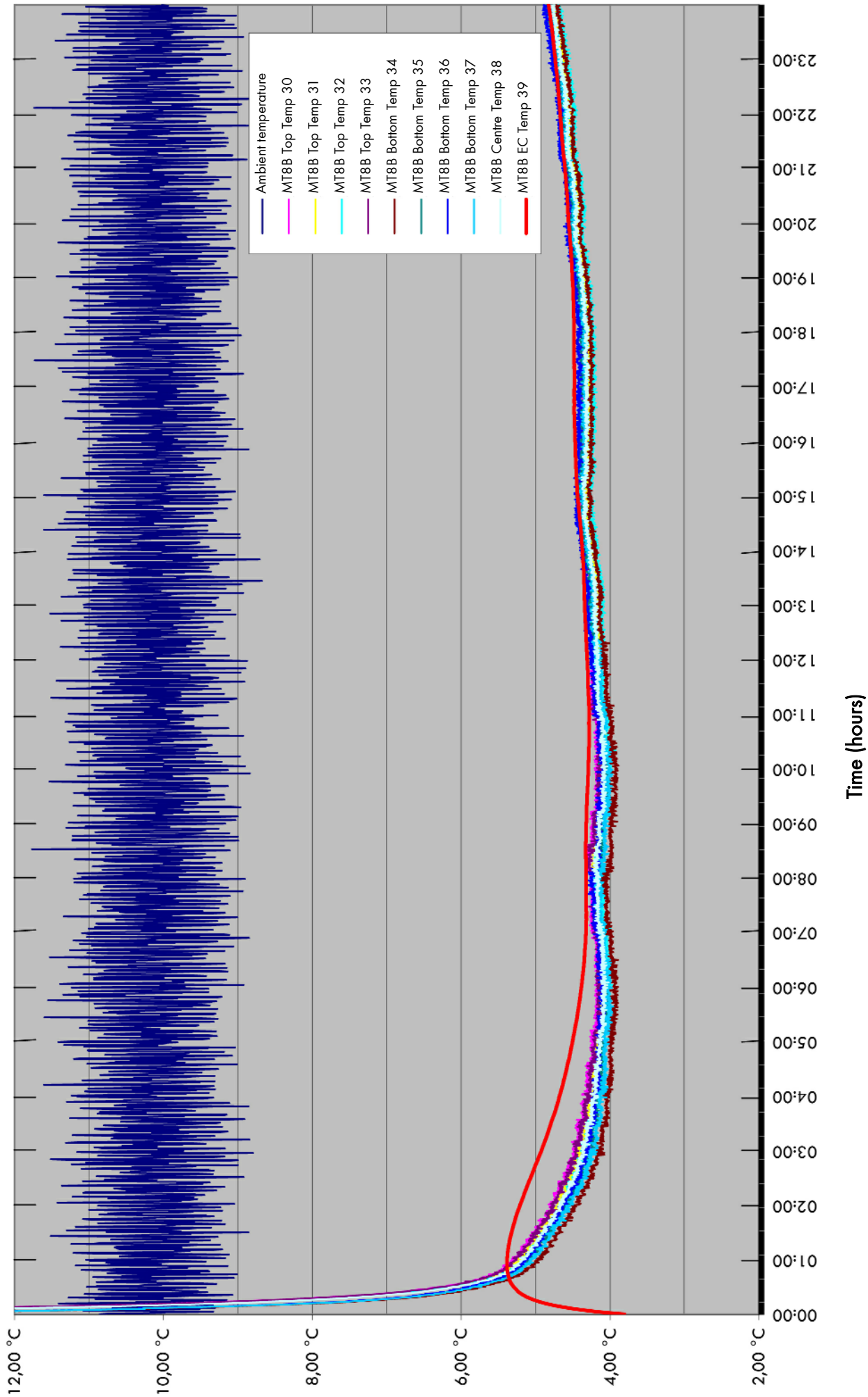
Performance Report for Dometic MT8B at +10°C over 24 h

Ambient temperature: +10°C
Number of measuring runs: 3
Duration of validation: 24 hours

Ambient temperature	Measuring run 1	Measuring run 2	Measuring run 3	**Accumulated**	Absolute
Average temperature	10.13°C	10.16°C	10.14°C	**10.14°C**	10.14°C
Minimum value	8.22°C	8.34°C	8.33°C	**8.68°C**	8.22°C
Maximum value	12.10°C	12.10°C	12.09°C	**11.77°C**	12.10°C
Test readings MT8B	**Charge: 2 ECs at 270 ml each; two cooling elements at 600 ml each**				
Temp 30 (air at top)					
Average temperature	4.52°C	4.45°C	4.66°C	**4.53°C**	4.66°C
Minimum value	4.07°C	3.97°C	4.17°C	**4.07°C**	4.17°C
Maximum value	19.57°C	19.50°C	19.70°C	**18.98°C**	19.70°C
Temp 31 (air at top)					
Average temperature	4.44°C	4.37°C	4.57°C	**4.45°C**	4.57°C
Minimum value	3.99°C	3.87°C	4.07°C	**3.99°C**	4.07°C
Maximum value	19.56°C	19.44°C	19.66°C	**18.88°C**	19.66°C
Temp 32 (air at top)					
Average temperature	4.39°C	4.32°C	4.52°C	**4.40°C**	4.52°C
Minimum value	3.91°C	3.80°C	4.02°C	**3.92°C**	4.02°C
Maximum value	19.45°C	19.34°C	19.59°C	**18.84°C**	19.59°C
Temp 33 (air at top)					
Average temperature	4.50°C	4.43°C	4.64°C	**4.51°C**	4.64 °C
Minimum value	4.03°C	3.92°C	4.13°C	**4.04°C**	4.13 °C
Maximum value	19.59°C	19.51°C	19.67°C	**18.97°C**	19.67 °C
Temp 34 (air at bottom)					
Average temperature	4.30°C	4.23°C	4.44°C	**4.32°C**	4.44°C
Minimum value	3.88°C	3.77°C	3.99°C	**3.88°C**	3.99°C
Maximum value	15.87°C	15.72°C	15.99°C	**15.17°C**	15.99°C
Temp 35 (air at bottom)					
Average temperature	4.43°C	4.36°C	4.57°C	**4.44°C**	4.57°C
Minimum value	3.98°C	3.88°C	4.09°C	**4.01°C**	4.09°C
Maximum value	16.00°C	15.81°C	16.14°C	**15.29°C**	16.14°C
Temp 36 (air at bottom)					
Average temperature	4.47°C	4.40°C	4.61°C	**4.48°C**	4.61°C
Minimum value	4.02°C	3.91°C	4.13°C	**4.04°C**	4.13°C
Maximum value	15.98°C	15.94°C	16.09°C	**15.31°C**	16.09°C
Temp 37 (air at bottom)					
Average temperature	4.39°C	4.3 °C	4.53°C	**4.40°C**	4.53°C
Minimum value	3.94°C	3.83°C	4.06°C	**3.95°C**	4.06°C
Maximum value	15.95°C	15.86°C	16.02°C	**15.28°C**	16.02°C
Temp 38 (air at centre)					
Average temperature	4.44°C	4.37°C	4.58°C	**4.45°C**	4.58°C
Minimum value	4.00°C	3.89°C	4.10°C	**4.01°C**	4.10°C
Maximum value	18.36°C	18.25°C	18.48°C	**17.69°C**	18.48°C
Temp 29 (EC)					
Initial temperature	**3.73°C**	**3.84°C**	**3.85°C**	**3.81°C**	
Average temperature	**4.53°C**	**4.47°C**	**4.67°C**	**4.56°C**	4.56°C
Minimum value	**3.73°C**	**3.84°C**	**3.85°C**	**3.81°C**	3.73°C
Maximum value	**5.34°C**	**5.35°C**	**5.47°C**	**5.38°C**	5.47°C
Final temperature	**4.71°C**	**4.76°C**	**5.00°C**	**4.82°C**	

Storage temperatures for ECs (2°C - 6°C) were maintained for: **> 24:00:00**
Transport temperatures for ECs (1°C - 10°C) were maintained for: **> 24:00:00**

Temperature chart for Dometic MT8B over 24 hours at an ambient temperature of 10°C *(accumulated results)*



Test Readings

MT8B

At an outside temperature of +32°C over 24 hours

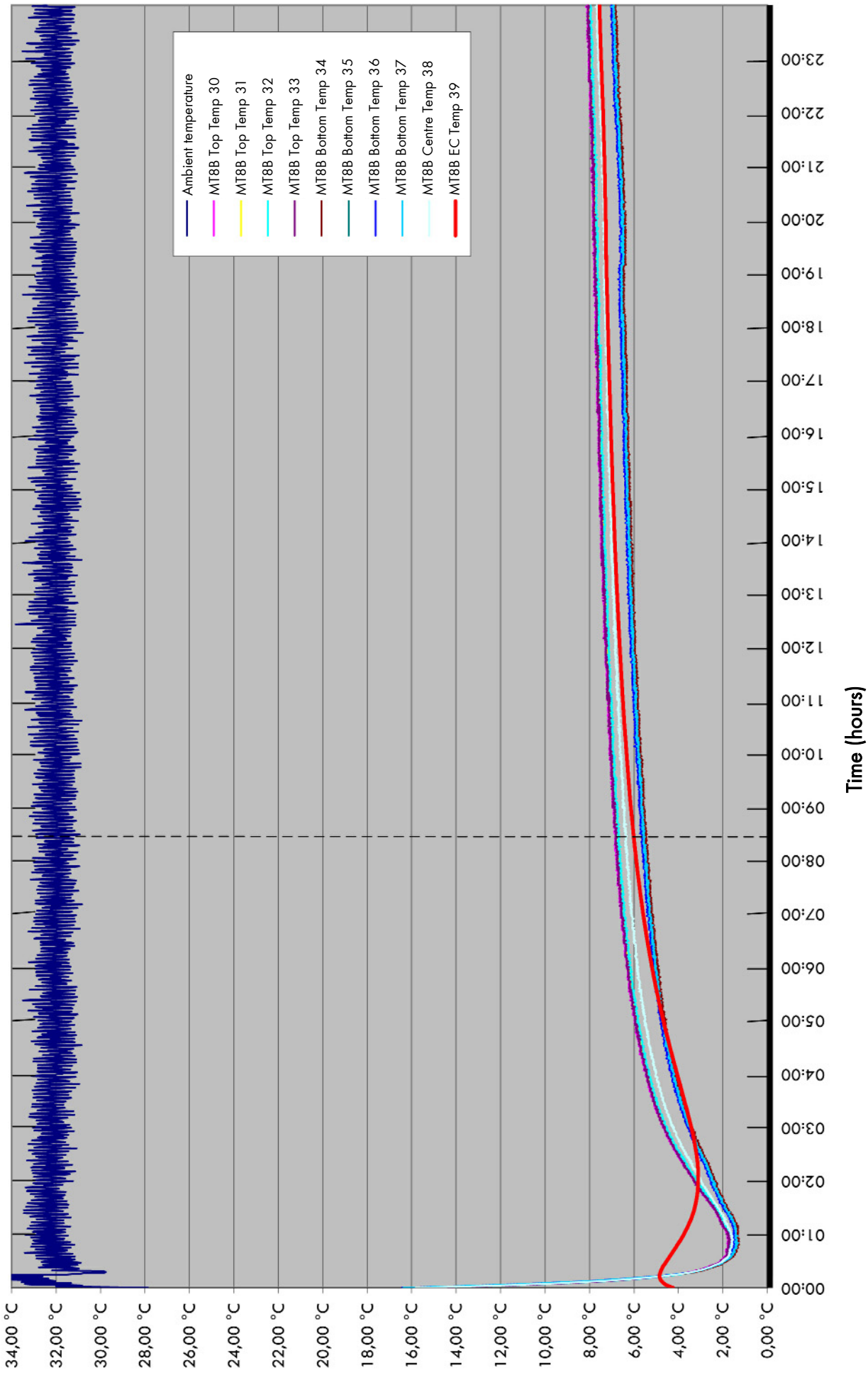
Performance Report for Dometic MT8B at +32°C over 24 h

Ambient temperature: +32°C
Number of measuring runs: 3
Duration of validation: 24 hours

Ambient temperature	Measuring run 1	Measuring run 2	Measuring run 3	**Accumulated**	Absolute
Average temperature	32.06°C	32.07°C	32.07°C	**32.07°C**	32.07°C
Minimum value	28.08°C	27.50°C	28.01°C	**27.87°C**	27.50°C
Maximum value	35.07°C	35.07°C	34.67°C	**34.65°C**	35.07°C
Test readings MT8B	**Charge: 2 ECs at 270 ml each; two cooling elements at 600 ml each**				
Temp 30 (air at top)					
Average temperature	6.62°C	6.71°C	6.77°C	**6.69°C**	6.77°C
Minimum value	1.59°C	1.69 °C	1.75°C	**1.68°C**	1.75°C
Maximum value	15.49°C	15.59 °C	15.63°C	**14.73°C**	15.63°C
Temp 31 (air at top)					
Average temperature	6.54°C	6.62°C	6.69°C	**6.61°C**	6.69°C
Minimum value	1.51°C	1.58°C	1.65°C	**1.60°C**	1.65°C
Maximum value	15.46°C	15.50°C	15.61°C	**14.62°C**	15.61°C
Temp 32 (air at top)					
Average temperature	6.49°C	6.57°C	6.63°C	**6.56°C**	6.63°C
Minimum value	1.44°C	1.55°C	1.60°C	**1.54°C**	1.60°C
Maximum value	15.38°C	15.46°C	15.51°C	**14.61°C**	15.51°C
Temp 33 (air at top)					
Average temperature	6.60°C	6.68°C	6.75°C	**6.67°C**	6.75°C
Minimum value	1.56°C	1.64°C	1.70°C	**1.67°C**	1.70°C
Maximum value	15.51°C	15.57°C	15.62°C	**14.69°C**	15.62°C
Temp 34 (air at bottom)					
Average temperature	5.38°C	5.46°C	5.53°C	**5.45°C**	5.53°C
Minimum value	1.18°C	1.25°C	1.31°C	**1.26°C**	1.31°C
Maximum value	16.24°C	16.26°C	16.30°C	**15.56°C**	16.30°C
Temp 35 (air at bottom)					
Average temperature	5.50°C	5.59°C	5.65°C	**5.57°C**	5.65°C
Minimum value	1.27°C	1.35°C	1.42°C	**1.38°C**	1.42°C
Maximum value	16.30°C	16.39°C	16.45°C	**15.66°C**	16.45°C
Temp 36 (air at bottom)					
Average temperature	5.54°C	5.63°C	5.69°C	**5.61°C**	5.69°C
Minimum value	1.31°C	1.42°C	1.48°C	**1.41°C**	1.48°C
Maximum value	16.34°C	16.44°C	16.51°C	**15.70°C**	16.51°C
Temp 37 (air at bottom)					
Average temperature	5.46°C	5.55°C	5.61°C	**5.53°C**	5.61°C
Minimum value	1.22°C	1.32°C	1.36°C	**1.31°C**	1.36°C
Maximum value	16.30°C	16.40°C	16.44°C	**15.62°C**	16.44°C
Temp 38 (air at centre)					
Average temperature	6.20°C	6.28°C	6.35°C	**6.27°C**	6.35°C
Minimum value	1.46°C	1.51°C	1.60°C	**1.53°C**	1.60°C
Maximum value	15.77°C	15.85°C	15.87°C	**14.97°C**	15.87°C
Temp 29 (EC)					
Initial temperature	**4.22°C**	**3.99°C**	**4.48°C**	**4.23°C**	
Average temperature	**6.01°C**	**6.08°C**	**6.16°C**	**6.08°C**	6.08°C
Minimum value	**3.04°C**	**3.04°C**	**3.22°C**	**3.10°C**	3.04°C
Maximum value	**7.48°C**	**7.57°C**	**7.62°C**	**7.55°C**	7.62°C
Final temperature	**7.48°C**	**7.57°C**	**7.62°C**	**7.55°C**	

Storage temperatures for ECs (2°C - 6°C) were maintained for: **> 08:25:00**
Transport temperatures for ECs (1°C - 10°C) were maintained for: **> 24:00:00**

Temperature chart for Dometic MT8B over 24 hours at an ambient temperature of 32°C *(accumulated results)*



Test Readings "Maximum Cold Life"

MT8B

At an outside temperature of +32°C

Performance Report for Dometic MT8B "Maximum Cold Life" at +32°C

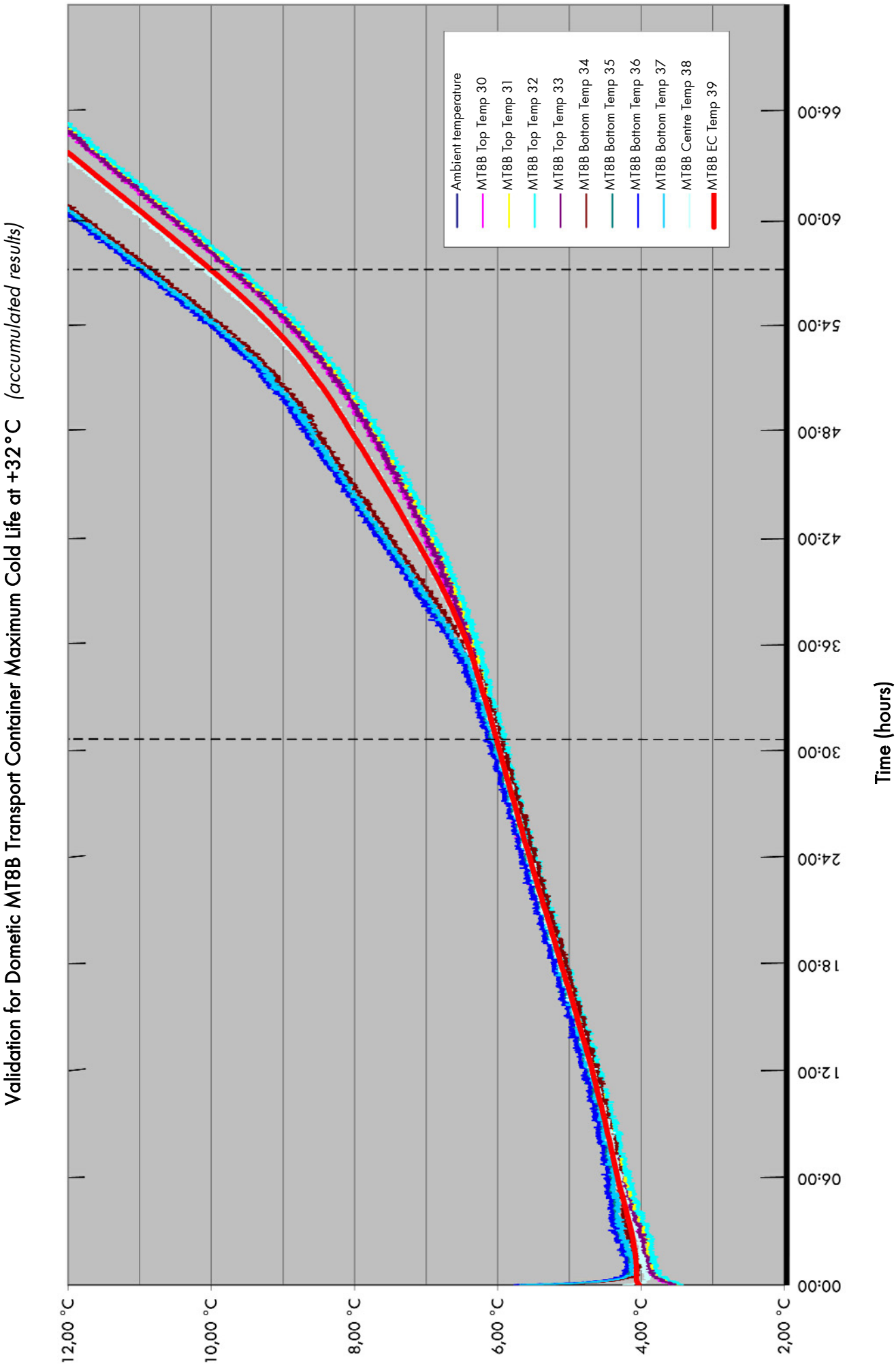
Note: All statistical values refer to the period of time until the 10°C limit in the EC is reached (Temp 39)

Ambient temperature: +32°C
Number of measuring runs: 3

Ambient temperature	Measuring run 1	Measuring run 2	Measuring run 3	**Accumulated**	Absolute
Average temperature	32.57°C	32.57°C	32.57°C	**32.57°C**	32.57°C
Minimum value	31.53°C	31.53°C	31.56°C	**31.65°C**	31.53°C
Maximum value	34.08°C	33.98°C	34.07°C	**33.80°C**	34.08°C

Test readings MT8B	**Charge: 14 ECs at 270 ml each; 4 cooling elements at 600 ml each**				
Temp 30 (air at top)					
Average temperature	5.32°C	5.58°C	5.36°C	**5.42°C**	5.42°C
Minimum value	2.42°C	2.81°C	2.48°C	**2.59°C**	2.42°C
Maximum value	11.57°C	11.51°C	11.57°C	**11.52°C**	11.57°C
Temp 31 (air at top)					
Average temperature	5.23°C	5.49°C	5.27°C	**5.34°C**	5.33°C
Minimum value	2.31°C	2.71°C	2.38°C	**2.47°C**	2.31°C
Maximum value	11.47°C	11.42°C	11.45°C	**11.44°C**	11.47°C
Temp 32 (air at top)					
Average temperature	5.18°C	5.45°C	5.22°C	**5.29°C**	5.28°C
Minimum value	2.27°C	2.65°C	2.33°C	**2.44°C**	2.27°C
Maximum value	11.44°C	11.38°C	11.44°C	**11.36°C**	11.44°C
Temp 33 (air at top)					
Average temperature	5.29°C	5.56°C	5.33°C	**5.40°C**	**5.39°C**
Minimum value	2.38°C	2.76°C	2.44°C	**2.56°C**	2.38°C
Maximum value	11.53°C	11.49°C	11.55°C	**11.49°C**	11.55°C
Temp 34 (air at bottom)					
Average temperature	5.03°C	5.32°C	5.08°C	**5.14°C**	5.14°C
Minimum value	2.67°C	3.06°C	2.73°C	**2.83°C**	2.67°C
Maximum value	9.95°C	9.80°C	9.89°C	**9.86°C**	9.95°C
Temp 35 (air at bottom)					
Average temperature	5.16°C	5.45°C	5.20°C	**5.27°C**	5.27°C
Minimum value	2.78°C	3.16°C	2.83°C	**2.95°C**	2.78°C
Maximum value	10.02°C	9.90°C	10.01°C	**10.00°C**	10.02°C
Temp 36 (air at bottom)					
Average temperature	5.20°C	5.49°C	5.24°C	**5.31°C**	5.31°C
Minimum value	2.82°C	3.21°C	2.88°C	**3.00°C**	2.82°C
Maximum value	10.13°C	10.00°C	10.02°C	**10.05°C**	10.31°C
Temp 37 (air at bottom)					
Average temperature	5.12°C	5.41°C	5.16°C	**5.23°C**	5.23°C
Minimum value	2.74°C	3.12°C	2.80°C	**2.91°C**	2.74°C
Maximum value	9.98°C	9.89°C	9.94°C	**9.92°C**	9.98°C
Temp 38 (air at centre)					
Average temperature	5.21°C	5.48°C	5.26°C	**5.32°C**	5.32°C
Minimum value	2.49°C	2.87°C	2.56°C	**2.65°C**	2.49°C
Maximum value	11.02°C	10.94°C	10.99°C	**10.94°C**	11.02°C
Temp 29 (EC)					
Initial temperature	**3.91°C**	**3.82°C**	**4.36°C**	**4.03°C**	
Average temperature	**5.02°C**	**5.29°C**	**5.09°C**	**5.14°C**	5.13°C
Minimum value	**2.79°C**	**3.17°C**	**2.86°C**	**2.94°C**	2.79°C
Maximum value	**10.01°C**	**10.00°C**	**10.00°C**	**10.00°C**	10.01°C

Storage temperatures for ECs (2°C - 6°C) were maintained for: **30:30**
Transport temperatures for ECs (1°C - 10°C) were maintained for: **57:02**


Validation for Dometic MT8B Transport Container Maximum Cold Life at +32 °C (accumulated results)
Ambient temperature
MT8B Top Temp 30
MT8B Top Temp 31
MT8B Top Temp 32
MT8B Top Temp 33
MT8B Bottom Temp 34
MT8B Bottom Temp 35
MT8B Bottom Temp 36
MT8B Bottom Temp 37
MT8B Centre Temp 38
MT8B EC Temp 39
12,00 °C
10,00 °C
8,00 °C
6,00 °C
4,00 °C
2,00 °C
00:00
06:00
12:00
18:00
24:00
30:00
36:00
42:00
48:00
54:00
60:00
66:00
Time (hours)

Test Readings "Maximum Cold Life"

MT8B

At an outside temperature of +43°C

Performance Report for Dometic MT8B "Maximum Cold Life" at +43°C

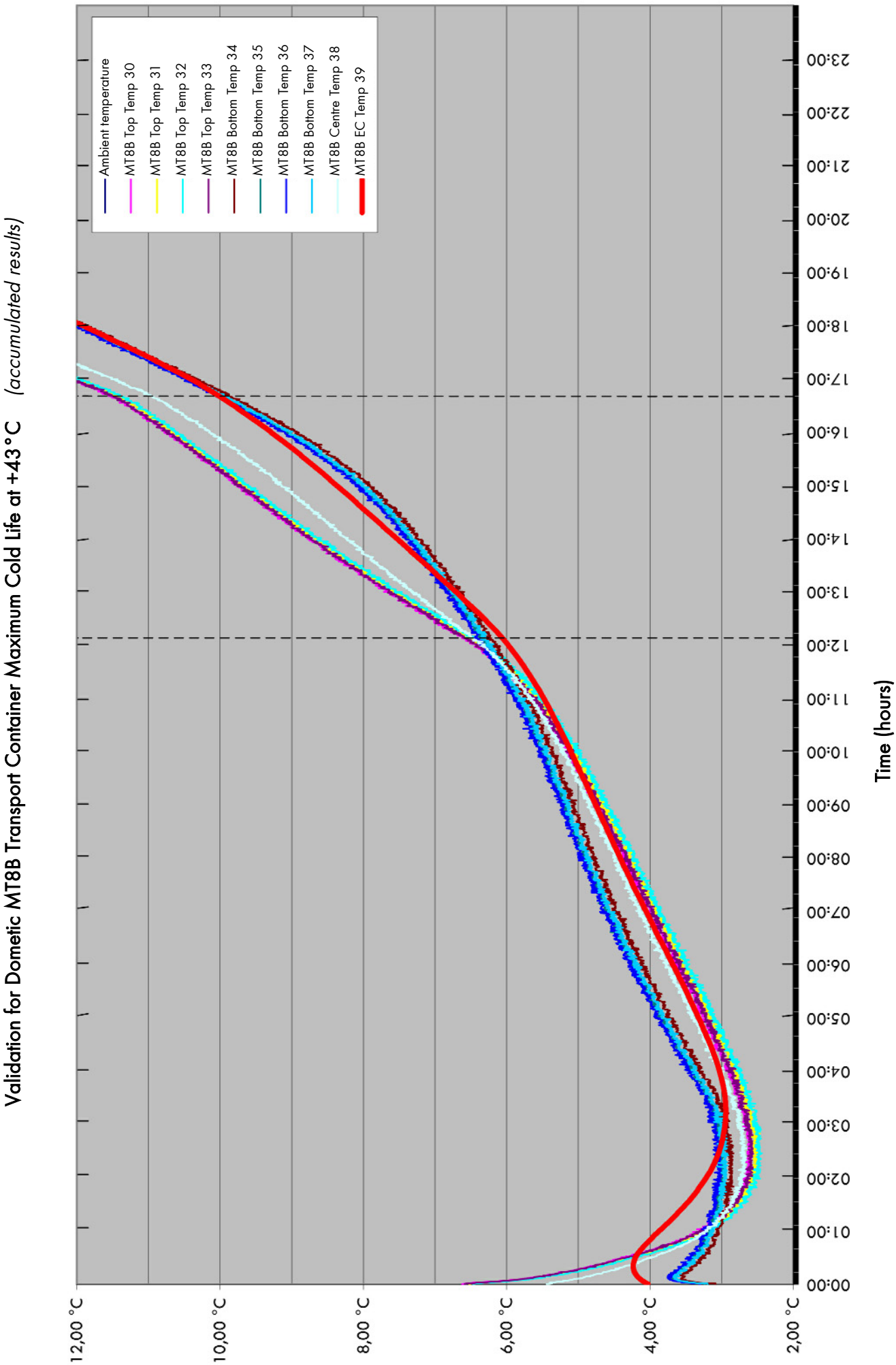
Note: All statistical values refer to the period of time until the 10°C limit in the EC is reached (Temp 39)

Ambient temperature: +43°C
Number of measuring runs: 3

Ambient temperature	Measuring run 1	Measuring run 2	Measuring run 3	**Accumulated**	Absolute
Average temperature	43.40°C	43.39°C	43.39°C	**43.39°C**	43.39°C
Minimum value	36.21°C	36.44°C	36.25°C	**36.30°C**	36.21°C
Maximum value	44.28°C	44.34°C	44.29°C	**44.25°C**	44.34°C

Test readings MT8B	**Charge: 14 ECs at 270 ml each; 4 cooling elements at 600 ml each**				
Temp 30 (air at top)					
Average temperature	5.32°C	5.58°C	5.36°C	**5.42°C**	5.42°C
Minimum value	2.42°C	2.81°C	2.48°C	**2.59°C**	2.42°C
Maximum value	11.57°C	11.51°C	11.57°C	**11.52°C**	11.57°C
Temp 31 (air at top)					
Average temperature	5.23°C	5.49°C	5.27°C	**5.34°C**	5.33°C
Minimum value	2.31°C	2.71°C	2.38°C	**2.47°C**	2.31°C
Maximum value	11.47°C	11.42°C	11.45°C	**11.44°C**	11.47°C
Temp 32 (air at top)					
Average temperature	5.18°C	5.45°C	5.22°C	**5.29°C**	5.28°C
Minimum value	2.27°C	2.65°C	2.33°C	**2.44°C**	2.27°C
Maximum value	11.44°C	11.38°C	11.44°C	**11.36°C**	11.44°C
Temp 33 (air at top)					
Average temperature	5.29°C	5.56°C	5.33°C	**5.40°C**	5.39°C
Minimum value	2.38°C	2.76°C	2.44°C	**2.56°C**	2.38°C
Maximum value	11.53°C	11.49°C	11.55°C	**11.49°C**	11.55°C
Temp 34 (air at bottom)					
Average temperature	5.03°C	5.32°C	5.08°C	**5.14°C**	5.14°C
Minimum value	2.67°C	3.06°C	2.73°C	**2.83°C**	2.67°C
Maximum value	9.95°C	9.80°C	9.89°C	**9.86°C**	9.95°C
Temp 35 (air at bottom)					
Average temperature	5.16°C	5.45°C	5.20°C	**5.27°C**	5.27°C
Minimum value	2.78°C	3.16°C	2.83°C	**2.95°C**	2.78°C
Maximum value	10.02°C	9.90°C	10.01°C	**10.00°C**	10.02°C
Temp 36 (air at bottom)					
Average temperature	5.20°C	5.49°C	5.24°C	**5.31°C**	5.31°C
Minimum value	2.82°C	3.21°C	2.88°C	**3.00°C**	2.82°C
Maximum value	10.13°C	10.00 °C	10.02°C	**10.05°C**	10.31°C
Temp 37 (air at bottom)					
Average temperature	5.12°C	5.41°C	5.16°C	**5.23°C**	5.23°C
Minimum value	2.74°C	3.12°C	2.80°C	**2.91°C**	2.74°C
Maximum value	9.98°C	9.89°C	9.94°C	**9.92°C**	9.98°C
Temp 38 (air at centre)					
Average temperature	5.21°C	5.48°C	5.26°C	**5.32°C**	5.32°C
Minimum value	2.49°C	2.87°C	2.56°C	**2.65°C**	2.49°C
Maximum value	11.02°C	10.94°C	10.99°C	**10.94°C**	11.02°C
Temp 29 (EC)					
Initial temperature	**3.91°C**	**3.82°C**	**4.36°C**	**4.03°C**	
Average temperature	**5.02°C**	**5.29°C**	**5.09°C**	**5.14°C**	5.13°C
Minimum value	**2.79°C**	**3.17°C**	**2.86°C**	**2.94°C**	2.79°C
Maximum value	**10.01°C**	**10.00°C**	**10.00°C**	**10.00°C**	10.01°C

Storage temperatures for ECs (2°C - 6°C) were maintained for: **12:02**
Transport temperatures for ECs (1°C - 10°C) were maintained for: **16:39**


Validation for Dometic MT8B Transport Container Maximum Cold Life at +43 °C (accumulated results)
Ambient temperature
MT8B Top Temp 30
MT8B Top Temp 31
MT8B Top Temp 32
MT8B Top Temp 33
MT8B Bottom Temp 34
MT8B Bottom Temp 35
MT8B Bottom Temp 36
MT8B Bottom Temp 37
MT8B Centre Temp 38
MT8B EC Temp 39
12,00 °C
10,00 °C
8,00 °C
6,00 °C
4,00 °C
2,00 °C
00:00
01:00
02:00
03:00
04:00
05:00
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
Time (hours)

Validation Results

Validation Report

DOMETIC MT8B

Object: Dometic MT8B
Special transport container for the transport of blood preparations
PROD-ID 958.4804.01; S/N 3090616, 3090625, 3090624

Range of application: Transport of erythrocyte concentrates
under Central European average climatic conditions

Results: Temp. +10°C over 24 h; 2 blood bags at 270 ml each; 2 icepacks at 600 ml each

Ambient temperature	Average:	10.14°C
	Absolute minimum:	8.68°C
	Absolute maximum:	11.77°C
Blood bag core temperature	Initial temperature:	3.81°C
	Final temperature:	4.82°C
	Maximum temperature:	5.38°C
	Minimum temperature:	3.81°C

Temp. +32°C over 24 h; 2 blood bags at 270 ml each; 4 icepacks at 600 ml each

Ambient temperature	Average:	32.07°C
	Absolute minimum:	27.50°C
	Absolute maximum:	35.07°C
Blood bag core temperature	Initial temperature:	4.23°C
	Final temperature:	7.55°C
	Maximum temperature:	7.55°C
	Minimum temperature:	3.10°C

Temp. +32°C "Max. Cold Life"; 14 blood bags at 270ml each; 4 icepacks at 600ml each

Ambient temperature	Average:	32.57°C
	Absolute minimum:	31.88°C
	Absolute maximum:	33.18°C
Blood bag core temperature	Initial temperature:	4.01°C
	Minimum temperature:	4.01°C
	Time until 6°C:	30h:30min
	Time until 10°C:	57h:02min

Temp. +43°C "Max. Cold Life"; 14 blood bags at 270ml each; 4 icepacks at 600ml each

Ambient temperature	Average:	43.39°C
	Absolute minimum:	36.30°C
	Absolute maximum:	44.13°C
Blood bag core temperature	Initial temperature:	4.03°C
	Minimum temperature:	2.94°C
	Time until 6°C:	12h:02min
	Time until 10°C:	16h:39min

Evaluation: The effect of the ambient temperature on the two erythrocyte concentrates stored in a transport container of the type Dometic MT8B over a period of 24 hours, is small.

At an ambient temperature of +10°C, the preparations' core temperature within a MT8B charged with 2 blood bags at 270 ml each over more than 24 hours remains within the legally required storage temperature range.

With the same charge and at an ambient temperature of +32°C, the storage temperature range of 2°C to 6°C is maintained for 8:25 hours and the transport temperature range is maintained for more than 24 hours.

With a full charge of 14 blood bags at 270 ml each and at an ambient temperature of +32°C, the storage temperature range is maintained for over 30 hours and the transport temperature range for more than 57 hours, i.e. notably more than two days.

Under extreme conditions, at an ambient temperature of +43°C and with a full charge, the storage temperatures are still maintained for more than 12 hours and the transport temperature range for over 16 hours.

The passive design of the transport container makes the container entirely impervious to operating errors or power cuts under any environmental conditions if it is correctly configured.

The casing of the transport container is extremely sturdy and almost entirely impervious against exterior forces, e.g. bumps and falls.

Furthermore, it can be cleaned and disinfected easily and thoroughly. The interior does not feature any inaccessible corners and areas.

Münster, 19th December 2003